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A qualitative study of factors contributing to the successful enrollment, retention and graduation of Blacks in medical school.

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A QUALITATIVE STUDY OF FACTORS CONTRIBUTING TO THE SUCCESSFUL ENROLLMENT, RETENTION AND GRADUATION OF BLACKS IN MEDICAL SCHOOL

A Dissertation Presented

by

MARY E. BENNETT

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ABSTRACT

A QUALITATIVE STUDY OF FACTORS
CONTRIBUTING TO THE SUCCESSFUL ENROLLMENT,
RETENTION AND GRADUATION OF BLACKS IN MEDICAL SCHOOL

MAY 1991

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The major purpose of this study was to investigate the question: Do the usual and traditional criteria for judging admissions to medical school, principally traditional academic criteria, in fact, provide the best predictors of success for Blacks or are there other factors, characteristics or variables, non-traditional in nature which are better predictors of Blacks' successful completion from medical school?

Specifically this study attempted to determine the impact of the following factors on the successful completion of medical school for Blacks:

1. Demographic factors such as race, religion, cost or medical school indebtedness.
2. Family income.
3. Factors influencing the decision to pursue a medical education.
4. Barriers obstructing their pursuit of a medical degree.

5. Factors contributing to the successful completion of medical school for Blacks.

The findings of this study suggests the following factors, characteristics and variables do contribute to the successful completion of medical school for Blacks.

1. Exposure to the field of medicine.
2. Personal characteristics, i.e., having a high degree of self-confidence and self-esteem, motivation, having an unyielding sense of determination, perseverance and endurance, being able to delay one's rewards or gratification, discipline and being able to withstand racism.
3. Support systems:
   - parental and family support
   - peer support
   - minority affairs office
   - mentorship program
   - church support
4. Financial resources.
5. Specially designed medical school programs.
6. Non-traditional approaches used by medical school admission committees.

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CHAPTER I

INTRODUCTION AND STATEMENT OF THE PROBLEM

Throughout the history of the United States, Blacks have been underrepresented in U.S. Medical Schools and consequently in the medical profession. This has been one of the many consequences of the institution of slavery, the black codes, the "separate but equal" doctrine, inequities in the educational system, Jim Crow doctrine and racism.

Weinberg (1977) and Pifer (1973) both address the issue of educational deprivation of Blacks in the American public school systems. These authors indicate the educational system has maintained racial and ethnic barriers throughout all levels of education. This deprivation was fostered by local, state and federal governments and was achieved legislatively through the Black codes which actually prohibited the educating of Black slaves. The literature points to the "separate but equal" doctrine in 1896 and the Flexner Report of 1910 as severely impeding Blacks' access to medical education during the early 20th century, and its consequences are still being felt today (Brown, 1979; Johnston, 1984; Shea & Fullilove, 1985; and Smith, 1984).

Black underrepresentation in medical education has persisted in spite of court efforts to remove legal barriers.

> Despite the removal of all legal barriers to admission of Blacks to medical schools following the Supreme Court decision of 1954 in Brown vs. Board of Education, and the increase in the number of predominantly White schools to which Blacks were admitted the number actually enrolled in

White medical schools had decreased from 1955-56 to 1963-64 (Odegaard, 1977, p. 19).

This belief is also supported by Relman (1977) who notes the problem of Black underrepresentation in medical education remains unresolved in spite of court decisions: "The social economic and cultural problems that are responsible for the underrepresentation of Blacks in medical schools cannot be solved by the courts." (Relman, 1977, p. 1175).

Therefore, it is important to address the issue of underrepresentation of Blacks in medical education and medicine. As noted by Sullivan (1983, Dr. Louis Sullivan, appointed as Secretary of Health and Human Services in March 1989) Black physicians play a crucial role in solving the problem of poor health status amongst Blacks, the poor and minority individuals in the United States. Sullivan believes it is imperative to provide funding, develop programs and exert the effort needed to ensure equity. If steps are not taken, he sees many Blacks and minorities being abandoned to high infant mortality, shortened life expectancy, growing disillusionment and frustration. Sullivan also sees education as a means to upward mobility in this society. He further indicates medical education plays a significant role in providing an opportunity for Blacks to improve their economic and social status as well as it reaffirming the American dream.

Underrepresentation of Blacks in medical education is also identified by Sleeth and Mishell (1977). However,

these authors indicate medical schools made efforts in the late 1960's and early 1970's to increase the number of Blacks entering medical schools. These findings are also supported by Blackwell (1987) who reports the number of Black medical students enrolled in all medical schools more than doubled between 1969-70 and 1978-79. Blackwell attributes this increase in Black enrollment to a greater commitment by traditional White medical schools, societal pressures brought upon medical schools, improved recruitment efforts, special admissions programs, and federal mandates to desegregate all aspects of post secondary education. Black students of all socio-economic levels began to realize that medical school was a viable option to them. But the efforts made by these schools was insufficient to bring equity into medical education, parity was never achieved. The Minorities and Women in the Health Field (1987) report states according to the 1980 census, Black Americans made up 11.5 percent of the population, 9.5 percent of undergraduates in institutions of higher education in 1984-85, and 7.0 percent of first-year students in medical schools in 1986-87. The increase of Black representation in first-year medical school classes reached its peak at 7.5 percent in the mid-1970's and has been 7.0 percent or less since that time. However, Blackwell also notes a decline in the number of Black medical students enrolled and observed a leveling off at around 5.8 percent of the total medical school enrollment. This decline was interpreted as being a

loss of commitment by traditional White medical schools to attain parity for Blacks.

A. Specific Problem to be Studied

The problem of Black underrepresentation in medical education is complex, yet resolvable. The Report on Minorities and Women (1987) sees the acceptance rate of minorities as being marginal since it has remained 6.7 percentage points lower than the overall acceptance rate. This situation exists in spite of an increase in the overall acceptance rate from 35.3 percent in 1974 to 54.6 percent in 1986. In 1986-87 minorities made up 19 percent of the total medical school enrollment in comparison to 4 percent in 1968-69 (see Appendix C). Although minority representation reflects strides during this period, Black progress has been slight or stagnant.

Sleeth and Mishell (1977) have determined the problem of Black acceptance to medical school is compounded because of poor academic preparation. These authors note 77.8 percent of Black medical students versus 97.3 percent of White medical students in their first-year class were promoted with their class. Data on other years are consistent with the aforementioned data.

> Academic dismissal and the need to repeat first-year studies are the major causes for lower promotion of Blacks than of Whites. The small percentage of well-qualified Black applicants among all medical school applicants is clearly an important cause for continued Black underrepresentation in medical schools (Sleeth and Mischell, 1977, p. 1147).

Wilson (1986) sees the cause of Black underrepresentation in medical education as unclear and ill-defined and requiring further study as noted in the review of literature.

Many factors are noted as contributing to the underrepresentation of Blacks in medical education. Sleeth and Mishell (1977) see Black underrepresentation in college, their high attrition rate in college, and lack of premedical science preparation as significant factors. Nelson, Bird, Wilson and Rogers (1970) add factors such as inadequate financial aid programs and a lack of recruitment of Black students into the educational pathway. Blackwell (1987) also notes the comparatively high attrition rate of Black students and the retention problems as contributing to the underrepresentation of Blacks in medical education. This study will review the aforementioned issues which are believed to contribute to the underrepresentation of Blacks in medical education. But, more importantly, this study will examine the traditional criteria used for judging applicants for admission to medical schools. It will determine if, in fact, the traditional criteria provide the best predictors of success for minority students and specifically for Black students.

There is generally believed to be an established set of criteria that speak to achievement levels in medical education. These criteria include the Medical College Aptitude Test (MCAT), college grade point average (GPA), academic standing at the undergraduate college attended and

references (Blackwell, 1987; Crowley and Nickleson, 1969; and Evans, Jones, Wortman and Jackson, 1975). Students meeting the aforementioned criteria, generally accepted by medical schools, are earmarked to most likely succeed in medical school; however, these criteria are not inclusive enough especially when the clientele are minorities. Sleeth and Mishell (1977) note that only a small percentage of Black applicants fall into the category of being well qualified when measured by the established criteria. In these situations, alternative criteria, non-traditional in character, should be used as well. These alternative criteria as reported by Johnson and Sedlacek (1975) and Blackwell (1987), are positive self-concept, maturity, strong motivation, determination, a good sense of direction, leadership ability, realistic goals, strong support systems and an ability to deal with racism. When these considerations are combined with additional experiences within medical education, for example minority support programs, there is an enhancement of probability for successful completion. Additionally, recruitment to medical school becomes an important matter for increasing accessibility to numbers of Blacks applying.

Therefore, this study will be concerned with the question: Do the usual and traditional criteria for judging admissions to medical school, principally traditional academic ones, in fact provide the best predictors for success for Black students? This study will be suggestive only, after interviewing ten Black physicians and medical

students who have been successful in medical school (admitted into medical school, completed at least the second or third year of medical school or graduated from medical school). Based on the interviews and the literature this investigator hopes to develop alternative criteria, non-traditional in character, that could potentially be used by medical school admission committees when evaluating Black applicants. This study will have the added feature of describing role models for young Blacks.

It is not the hope of this investigator to devalue high academic standards, high academic ability or the necessity of providing quality education for Black youth, but rather to show that the lower scores many Blacks receive on MCAT's, and GPA's is not an indication that Blacks lack intelligence or intellectual ability, but it is a reflection or indication that many Blacks suffer from years of educational deprivation, discrimination, unchallenging tracking systems in schools, inadequate guidance counseling, poverty and the White orientation of the test administered. The previously mentioned factors limit the possibilities and opportunities available to Blacks to obtain a higher education and make it even more difficult for Blacks to obtain medical education.

Blackwell (1987), reveals medical schools have always used a combination of traditional as well as non-traditional criteria when evaluating potential medical school candidates. The value placed upon each component of traditional versus non-traditional criteria varies from time to time, from one institution to another. He observes that

some institutions view individuals' willingness to make substantial contributions to their medical schools as traditional criteria for admission.

The issue of traditional versus non-traditional criteria is also addressed by Crowley and Nicholson (1969). These authors concur that Black students are frequently unprepared academically for higher education irrespective of their innate intellectual ability. They point to an inequity and bias in the orientation of tests such as the MCAT as being a part of the problem for Black students. This examination evaluates skills which are influenced by the individual's home environment and the quality of their earlier education. Individuals coming from disadvantaged backgrounds will not do well based on this bias.

These authors conclude medical schools must develop their special recruitment programs if they are going to recruit young Blacks into the medical profession. They must establish methods to arouse interest in the health professions as well as motivating the interest of Black students with the ability to achieve success in medical school. Medicine must be portrayed as a challenging profession but not as an impossible dream for Blacks.

While the present study will examine some of the aforementioned issues in Black underrepresentation in medical education, especially in the literature review, the principal focus of the interviews will be to examine in detail the factors contributing to the success of Blacks in medical schools in admission, retention and graduation.

Specifically, the interviews will attempt to determine the impact of the following factors on the success of Blacks in gaining admission, completion and graduation from medical school:

1. Demographic factors such as age, sex, race, religion, geographical locations where respondents grew up, secondary school information, post-secondary school information, cost and indebtedness of medical education, methods of financing medical education.
2. Financial factors such as family income.
3. Factors influencing the respondents decision to pursue a medical education.
4. Obstacles encountered by respondents prior to admission to medical school and during their medical education.
5. Factors contributing to the successful admission, retention and completion of medical school including support systems, minority affairs office and its role, faculty attitudes and support or lack of support during medical school.
6. Factors influencing the respondents' chosen area of specialization in medical school.
7. Interviews conducted with physicians will focus on the same questions asked of medical school students, but in addition they will include questions about the role of Black physicians; their responsibility for bringing equity into the medical profession, if any; their

practice location and whether their medical school indebtedness influenced their practice location.

B. Organization of the Chapters

Chapter I will focus on the underrepresentation of Blacks in medical education. The intention of this chapter is to acquaint the reader with the factors contributing to the underrepresentation of Blacks in medicine and address the implications of this inequity on Blacks and on society. This chapter will reveal the major question with which this study will be concerned.

In Chapter II a review of relevant literature will be presented. A historical perspective of Blacks' entrance into medical education in the United States will be revealed and current trends in medicine will be addressed. This chapter will describe barriers in medical education for Blacks and finally will establish a need for Blacks in medical education.

Chapter III contains information about the methodology used to conduct the study. It describes the interview questions, reveals its usage in standardizing the interview process, give a description of the pilot study, and describe the collection, assimilation and treatment of the data.

Chapter IV will present participants' profiles and the case studies. Significant issues revealed during the interview will be included.

Chapter V will be a discussion and interpretation of the study findings.

Chapter VI will consist of a summary, conclusions and recommendations of the study.

CHAPTER II

REVIEW OF THE LITERATURE

A. Introduction

Black underrepresentation in medical education and in the medical profession is not a recent phenomenon. According to the literature, the underrepresentation of Blacks in education in the United States is an historical trend which dates back to colonial times. "The segregated society in which we lived was founded on the notion of White superiority and Black inferiority" (Smith, 1988, p. 38). Blacks were deemed inferior and uneducable. Black Americans were denied access to White institutions of higher education, medical schools were no exception to this rule. It should be noted that despite the conscious efforts of the majority to deny Blacks' access to education, a small number of Blacks managed to obtain their education in White institutions (due primarily to the efforts of religious and benevolent societies).

However, a thorough search of the literature suggests with the passing of the "separate but equal" doctrine in 1896, Blacks were, for the first time, legally denied admission to White institutions and officially restricted to Black educational institutions. Shortly thereafter, the Flexner Report of 1910 was published. The Flexner Report of 1910 was directly responsible for the closing of all but two Black medical schools. It was the general consensus of authors that the impact of the "separate but equal" doctrine and the Flexner Report on Blacks' access to medical schools

was far reaching. Their consequences are still being felt today.

Underrepresentation of Blacks in American medical education has resulted in medically underserved Black communities and poor health status among Blacks. Many authors reviewed including Blackwell (1981), Brown (1979), Morais (1966), Smith (1984), Sullivan (1983), and Wilson (1986) address the relationship between the dearth of Black physicians and the meager health care Black people receive. The poor health status of Blacks is reflected by a higher mortality rate from disorders such as hypertension, cardiovascular diseases, malignant neoplasms, early childhood diseases, lead poisoning, influenza, and cirrhosis of the liver. A large number of Black Americans are also affected by incapacitating mental health disorders due to inadequate coping strategies and insufficient psychiatric care.

The relationship between the paucity of Blacks in medicine and the poor health status amongst Blacks is also supported by other authors such as Halperin (1988) who states that an inadequate number of Black physicians, hospital services and poverty contribute to a higher mortality and morbidity rate amongst Black Americans. These findings are also supported in a Special Report written by Weisfeld and Lewin (1987) for the Robert Wood Johnson Foundation, (hereinafter referred to as the Johnson Report, 1987). This report indicates that in spite of the scientific advances made in this country towards improving

the health and life expectancy of Americans, the life expectancy of Black males is approximately seven years shorter than that of White males, and it is approximately five years shorter for Black females than it is for White females. The discrepancies are due in part to Blacks' higher incidence of death from the major killers such as heart disease, strokes and some forms of cancer. Research shows the death rate for these diseases is decreased by early detection, treatment and regular medical care. Another health issue is the infant mortality rate for Blacks. It is twice as high for Blacks as it is for Whites partially due to poor prenatal care, family planning and education. The Johnson Report (1987) suggests the infant mortality rate can be reduced by high quality prenatal care.

Increasing the number of Blacks in the health professions will result in improving Blacks' access to health care and consequently will also improve the health status of Blacks. The literature revealed Black physicians are more likely to return to minority communities to practice and thus provide medical care to Blacks, minorities and the poor (Bazzoli, Adams, and Thron, 1986; Johnson, Lloyd and Miller, 1989; Keith, Bell, Swanson and Williams, 1985; Pinn, 1984; Sullivan, 1983; and The Johnson Report, 1987).

While reviewing the literature on Blacks in medical education, this investigator found that the literature focused on: (1) Blacks' entrance into medical education; (2) the Flexner Report and the 1896 Supreme Court Decision's

impact on Blacks' access to medical schools; (3) barriers to medical education for Blacks; and, (4) the need for Blacks in medical education. Based on these findings this investigator will provide an overview of these four common areas and indicate their impact on Blacks in medical education past and present.

B. A Historical Perspective of Blacks' Entrance into Medical Schools

1. The 18th Century

The practicing physicians of the early 18th century were not allotted the social status or glamour later associated with the profession. At that time, medicine was viewed as a craft and art which was learned by serving as an apprentice for seven years in a medical practitioner's home. According to Cobb (1981), the young apprentice between the ages of thirteen and fourteen years of age found a master to serve. He avoided the vices of the times such as throwing dice, playing cards or going to the theater or taverns. He was forbidden to marry and needed permission to leave his master's house. In return, the master provided housing and training to the apprentice. This practice was also documented by Morais (1966). In 1776, the majority of the medical practitioners had been trained through apprenticeships; there were 3,100 at that time. There were only 400 physicians with M.D. degrees, and they were primarily trained in European universities.

In accordance with the practice of the times Blacks also became medical practitioners through apprenticeship

training. However, many brought medical knowledge and practices with them from Africa. They brought a knowledge of the medicinal value of a wide assortment of minerals, plants and herbs used to heal many disorders, a method of inoculation against smallpox and the medical knowledge of Black mid-wives concerning birth by caesarean section. Based on their background many slaves took up medical practice, with the only license requirement being the success a man or woman had in treating patients.

Among the first Blacks to enter medical practice during colonial times was Lucas Santomíe Peters. It was believed that Dr. Peters was the first African physician to practice in the colonies. He received his education in Holland, and was given land for his services to the colony of New Amsterdam. Dr. Peters was able to practice under special provisions in New Amsterdam during the 17th century.

In 1740, a slave named Primus provided services to his master Dr. Alexander Wolcott for many years. Primus made house calls with Dr. Wolcott and assisted him in the preparation of medications. Dr. Wolcott eventually gave Primus his freedom in appreciation of the services Primus had provided. After Primus was freed he moved to the east side of Connecticut and built a respected medical practice.

Dr. James Derham was another physician who received his training by apprenticeship. He trained under a successful Philadelphia practitioner whose specialty was sore throat distempers. He learned to prepare medications and treat patients. Dr. Derham purchased his freedom at the end of

the American Revolution. Once freed he established a very successful practice in New Orleans which included both Black and White patients. By 1723, at the young age of 26, Dr. Derham had developed a practice which provided him an income of $3,000 per year.

As the colonists settled into life in America a greater need to standardize the qualifications to practice medicine surfaced. Given the absence of formal regulations, anyone who had received training by apprenticeship could practice medicine in the colonies. The practice of obstetrics was the one exception to the rule because this area of medicine was dominated by midwives. The quality of apprenticeship training was almost as varied as was the number of physicians practicing medicine. Hence, physicians were unable to agree upon uniform standards of practice.

> When society provides no safeguards or standards to predict itself, charlatans are going to prey on the cupidity of the unfortunate. Quacks abounded, promising cures for any and all ailments. Because of the mystery surrounding the Indian and his manner of living close to nature, his medicinal ability was rated high, and those claiming a knowledge of Indian lore were popular. It was a period in which it was difficult to determine who was a quack and who was not. So empirical in their methods were some of the reputable physicians that they could not easily be classed as charlatans. And so low were the standards of medical practice that many historians refer to it as the era of kitchen physick (Postell, 1959, p. 50).

As the need for the colonists to fight for survival disappeared, the colonists were more able to address some of the social issues confronting them. One of the issues they had to contend with was the practice of medicine and who

should be allowed to practice. They initially established medical legislation to deal with some of the quackery, but progress on legislation was slow and did not create the changes in practice the colonists hoped to achieve. At the turn of the colonial period (mid-18th century) attempts were made to require licensure for physicians to practice. The first legislation requiring licensure was established in New York in 1760. A council was established to examine and certify practicing physicians. New Jersey was the second state to follow New York's lead in establishing some type of standard to practice medicine. The establishment of state medical societies was also instrumental in establishing and raising the standards of medical practice. Ultimately it was the combination of medical legislation, the establishment of state medical societies and the influence of physicians who had received a formal medical education abroad that created the impetus for establishing medical schools in America.

In 1765 the first medical school was established at the College of Philadelphia. It was founded by William Shippen, Jr. and John Morgan, both from Philadelphia. Both men received their medical degrees from Edinburgh. Shippen and Morgan accomplished this task with the support of written endorsements from prominent physicians in Edinburgh as well as from former Board of Trustee members from the College of Philadelphia who encouraged the establishment of a medical school and professorships for both men. The Medical Department of the College of Philadelphia graduated its first class of ten medical students in 1768. They conferred

the M.B. degree, the first medical degree bestowed in this country.

The M.B. degree was in accordance with the English custom of conferring the M.B. first, followed by the M.D. after a few years, based on examination or a thesis. The College of Philadelphia had established the policy that the M.D. degree could be conferred after three years. In 1771, four of the ten medical school graduates were admitted for the doctorate degree.

The second medical school was established in New York in 1767 at King's College, currently known as Columbia University. Both medical schools were modeled after European schools, specifically Edinburgh, where most of the medical school faculty had been trained. King's College conferred its first medical degrees in 1769; two medical students received the M.B. degree. King's College was the first to bestow the M.D. degree in America on the first two medical students in 1770 and 1771 respectively.

2. <u>The 19th Century</u>

It was approximately fifty-seven years after the first medical school was founded in the United States and some fifty-four years after the first medical school graduates received their M.B. degree that a Black man was to graduate from a medical school in America. James Hall was believed to be the first Black to graduate from an American medical college. He graduated from the Medical College of Maine in 1822. Shortly thereafter, in 1826, John B. Russworm received his medical degree as well as AB degree from

Bowdoin College. The first Black American physician to receive university training was Dr. James McCune Smith. He received his primary education at the New Africa Free School in 1824. The New Africa Free School was founded by the New York Manumission Society in 1787. Because James McCune Smith was denied admittance into higher education in America, he went to Scotland where he enrolled in the University of Glasgow and received his B.A. in 1835, his M.A. in 1836, and his M.D. in 1837. It was another ten years before another Black physician graduated from medical school. David J. Peck received his medical degree in 1847 from Rush Medical College in Chicago (Shea and Fullilove, 1985).

Some Blacks gained their medical education under the protection of the American Colonization Society. This Society was established in 1815 and received the support from very prominent Northern and Southern Whites. They believed that Blacks should not be integrated into White American society; therefore the Society founded a colony, Liberia, on the West Coast of Africa in 1822 to send Blacks. The Society sponsored free Blacks to attend predominantly White institutions in the United States provided they would go to Liberia to practice upon completion of their professional education. A few of the Blacks to gain their medical education under the Society were John V. DeGrasse and Thomas J. White. Their medical degrees were conferred in 1849 from Bowdoin College. At the conclusion of their education they refused to go to Liberia, and decided to remain in America to practice medicine. Many free Blacks

saw the banishment of Blacks to Africa as a ploy to deprive them of their entitlement, which was full American citizenship.

Some of the first Blacks to be admitted to Harvard Medical School did so under the auspices of the American Colonization Society. In 1850, the first Black medical students were admitted to Harvard Medical School under Dr. Oliver Wendell Holmes, the Dean of the Medical School. Two of these students, Daniel Laing, Jr. and Isaac H. Snowden, were sponsored by the Society. They were expected to go to Liberia to practice upon completion of their medical education. The third student was a well known Black leader from Pittsburgh, Martin R. Delaney. Delaney was given high recommendations by the White physicians in Pittsburgh. However, a controversy arose because of the admission of the three Black medical students. The White students resented the integration of their classroom settings, and felt their medical degrees would be tarnished if obtained in the company of Black students. As a result, in December 1850 a petition was signed with a small majority ruling to exclude the Black students from Harvard. Dr. Holmes was instructed to write to the Society and inform them of the decision to discharge the Black students. All three students were dismissed after the first term in 1851, and Harvard did not confer the M.D. degree upon a Black person until 1869 when Edwin Clarence Joseph Turpin Howard received his degree.

Prior to the mid-19th century women, Black and White, made their contributions to the field of medicine in the form of mid-wifery. As previously mentioned, Black women had brought the knowledge of mid-wifery and birth by caesarean section with them from Africa. Many White women received their mid-wifery training in Europe during the early 18th century since there was no formal medical training for women in America. While the general practice on Southern plantations was to appoint a White mid-wife to assist women during labor, a Black woman was usually selected to perform the delivery of the baby. As the move from apprenticeship training to formal medical training occurred for men in this country, the need for formal medical training for women in America also arose.

Until the mid-19th century both Black and White women were denied equal access to educational and professional opportunities primarily due to their sex. Both Black and White women faced discrimination in the areas of training, employment and advancement. However, although both races of women were denied access into higher education and medical education, the rate of Black women's acceptance in medical schools was even slower and did not occur until seventeen years after the first White women had been accepted into and entered medical school. As a result Black women moved into the medical profession at a later period as well as at a slower pace.

The first woman to be formally trained in medicine in America was Elizabeth Blackwell. Miss Blackwell's father

had been an abolitionist prior to immigrating from Europe to America. The Blackwell family included nine children. The two eldest daughters, Elizabeth and Emily, were teenagers when the family settled in New York. Mr. Blackwell allowed his two daughters to attend political and social meetings because of his liberal beliefs. The Blackwell family later moved to Cincinnati and became involved in the Unitarian Church and the anti-slavery movement. The anti-slavery involvement of Elizabeth and Emily Blackwell resulted in the formation of a friendship and alliance with Harriet Beecher Stowe, who was a strong force in the political life of Cincinnati. Elizabeth Blackwell's commitment to the women's rights movement and her strong feelings regarding the lack of women in the medical profession led her to become a physician. After being rejected from many medical schools, Elizabeth was finally accepted at Geneva Medical School in New York in 1847. It should be noted, Dr. Blackwell's successful graduation from medical school did not influence the medical school to accept more women for several years.

Dr. Elizabeth Blackwell and Dr. Ann Preston, who was one of the founders of the medical college for women in Philadelphia, were both outspoken advocates of Negro civil rights, and both women encouraged Black women to enter the medical profession. However, the battle for Black women's acceptance into medical school had clearly not been won.

It was forty-two years after the first Black male received his medical degree and seventeen years after the first White female was admitted to medical school before the

first Black woman would become a physician. Dr. Rebecca Lee was the first Black woman to receive her medical degree in America. Dr. Lee graduated from New England Female Medical College in 1864. Little information is documented regarding Dr. Rebecca Lee; however, she established a successful practice in Richmond, Virginia after the civil war (Cobb, 1981; Davis, 1982; and Shea and Fullilove, 1985).

Dr. Rebecca Lee was followed by Rebecca Cole, a graduate from Women's Medical College of Pennsylvania in 1867. Dr. Cole spent the Reconstruction years in Columbia, South Carolina. Dr. Cole also worked with Elizabeth and Emily Blackwell at the New York Infirmary for Women and Children. She functioned as one of the first "sanitary visitors" paying house calls in slum neighborhoods and teaching many mothers the basics of hygiene and child care. Upon her return to Philadelphia she assisted Charlotte Abbey in developing a women's directory which provided women with information on medical and legal aid. Dr. Cole later became the superintendent of the Government House for Children and Old Women in Washington, D.C. Among the most successful pioneer Black physicians was Dr. Susan Marie Steward. Dr. Steward graduated from Women's Medical College of the New York Infirmary for Women and Children in 1870 as valedictorian of her class. Dr. Steward interned in obstetrics and gynecology in spite of the difficulties Blacks had in obtaining internships during this period. She established a practice which included both Black and White patients. She also provided consultation to other leading

New York practitioners. At the height of her career in Brooklyn, she maintained two consulting offices in two separate sections of the city. Dr. Steward also served on the staffs of the New York Hospital for Women, The Brooklyn Women's Homeopathic Hospital and the Brooklyn Home for Aged Colored People.

Another Black female physician of record is Dr. Sara Mapps Douglass. Dr. Douglass graduated from the Ladies' Institute of the Pennsylvania Medical University of 1858. She was one of the founders of the Philadelphia Female Anti-Slavery Society and ran the girls' department of the Institute for Colored Youth in Philadelphia. Because Dr. Douglass believed that the education of female children should not be restricted to domestic and household chores, she introduced scientific subjects including physiology into the curriculum of the girls' department.

The final Black female pioneer in the medical field to be noted in this review is Dr. Caroline Still Anderson. Dr. Anderson was the daughter of William Still, a legendary conductor of the Underground Railroad. Dr. Anderson graduated from Oberlin College in 1868 (Oberlin College was one of the first White colleges to open its doors to Blacks) Dr. Anderson taught music, art and speech at Howard University for several years. In 1876 she was admitted to Howard University's Medical School and Dr. Anderson completed and obtained her medical degree from Woman's Medical College of Pennsylvania in Philadelphia in 1878. Although Dr. Anderson's first application for an internship

at Boston's New England Hospital for Women and Children was turned down because she was Black, she was later accepted by a unanimous decision of the Board of Directors. Dr. Anderson returned to Philadelphia and founded the Philadelphia Young Women's Christian Association for Colored Women. She also served as the resident and consulting physician at several Philadelphian hospitals while maintaining a well respected and lucrative private practice. Dr. Anderson practiced medicine until she died at age 70 in 1919.

Despite the achievements of the Black physicians, the idea or value of educating Blacks for medicine was basically frowned upon in the late 19th and early 20th century. State laws had also been established which prohibited the preparation and administration of medicines by slaves. Capital punishment was the penalty for any slave caught practicing medicine. The health status of Black people during this era was very poor.

> For too many years, Negroes suffered from discriminatory treatment in medicine and health. It was estimated that as many as 20 to 30 percent of the slaves died within three to four years after their arrival in America chiefly because of drastic changes in diet, climate, and working conditions. Newly arrived slaves, as well as their descendents, were highly susceptible to a number of illnesses common to their White masters and neighbors such as smallpox, measles, dysentery, diphtheria, pleurisy, and syphilis. These diseases were a source of constant concern to Southern planters, who were faced with the economic imperative of keeping their chattels alive and productive. Crops were merely income, but slaves were capital (Morias, 1966, pp. 2,14).

With the conclusion of the Civil War, rigid segregation practices became the order of the day. The health status of Blacks was no longer the responsibility of the masters, and the plight of Black people with regards to their medical care was another serious problem they had to face. Because of the rigid segregation practiced in the post-Reconstruction period, eight Black medical schools and some Black hospitals were established. Howard University Medical College in Washington, D.C. was the first to open in 1868. This university was not established for Blacks, but the doors had always been open to anyone. The first medical classes had more White than Black students. The founders of Howard Medical School were all officers in the Union Army, including Dr. Alexander T. Augusta, who was the only Black on the initial faculty. Howard was well-supported, well-run, and successful. The second medical school to open was Meharry. Unlike Howard, this school did not receive full federal support and was opened explicitly for Negroes. It was founded because of five Irish brothers named Meharry in Nashville, who wished to contribute to the reconstruction of their area. They donated $15,000 to the Methodist Episcopal Church for the development of a school to educate Black youth in medicine. According to Cobb (1981) George Whipple Hubbard went to Nashville, Tennessee to serve in the Union Army. The war had ended when he arrived; however, he stayed to teach the freedmen and to study medicine. Mr. Hubbard obtained his medical degree from Vanderbilt and then offered to train Blacks for medical careers at the Methodist

Episcopal Church. Shortly thereafter, Dr. Hubbard heard about the Meharry brothers' gift. The Central Tennessee College, a Methodist school for Negroes, had been planning a medical department because "the difficulty of securing proper medical attention for the colored people was very great and the mortality among them alarming" (Cobb, 1981, p. 1219). Meharry opened it doors in 1876 as the Medical Department of Central Tennessee College. Dr. George Whipple Hubbard became the Dean of the medical school. Six other medical schools were established as follows: Leonard (Shaw) Medical School, Raleigh, North Carolina (1882-1915); Louisville National Medical College, Louisville, Kentucky (1887-1911); Flint Medical College, New Orleans, Louisiana (1889-1911); Knoxville Medical College, Knoxville, Tennessee (1895-1910); the Medical Department of the University of West Tennessee (1900-1923); and Chattanooga National Medical College, Chattanooga, Tennessee (1902).

In the late 19th century during the establishment of these eight Black medical schools, the second Morrill Act of August 30, 1890 cleared the way for the establishment of legally separate Black and White land-grant public higher educational institutions. Consequently, a land-grant college was established in each of the 17 southern and bordering states between 1890 and 1899. "They were separate, unequal, and, for the most part, could not award baccalaureate degrees at that time" (Blackwell, 1987, p. 5).

The establishment of a dual educational system was not to remain limited to public land-grant institutions, but

this concept would become law with the advent of the 1896 U.S. Supreme Court decision in Plessy v. Ferguson. This "separate but equal" doctrine also affected medical schools. Therefore, it was necessary to establish Black medical schools.

3. Early to Mid-20th Century

a. The Impact of the 1896 Supreme Court Decision and the Flexner Report of 1910 on Black Medical Education. Many authors have underscored the significance and long term effects of the 1896 Supreme Court decision and the Flexner Report of 1910 (Blackwell, 1981; Brown, 1979; Johnston, 1984; Morias, 1966; Shea and Fullilove, 1985; Smith 1984; and Wilson, 1984). It is appropriate to deal with the critical events in the sequence in which they occurred. The 1896 U.S. Supreme Court decision in the case of Plessy vs. Ferguson established the "separate but equal" doctrine. Blackwell (1987) observes the principle of "separate but equal" affected all phases of American life. States were not required to even establish the basic structures of an integrated or desegregated society. Instead, they were allowed to develop segregated institutions since the mandate required only separate facilities. States adhered to the letter of the law by creating separate facilities but certainly not the spirit of the law as the facilities created for Blacks were far from equal (in many cases substandard). Given the quality of services available to Blacks, Whites were privileged and enabled to dominate all

aspects of American life, particularly the area of higher education.

The rapid growth of Black public and private colleges was a response to address Blacks' exclusion from educational institutions. The hope of any Black person to receive medical training would have been all but futile had not a few Black medical colleges been established at the onset of the twentieth century (the last to open was Chattanooga National Medical College in 1902). The period between 1865 and 1900 as noted by Shea and Fullilove (1985), marked the most rapid growth in the number of medical schools in the United States. There were only 52 medical schools in the U.S. in 1850, but by 1870 the number had increased to 75; there were 100 medical schools by 1880, and 160 by 1900. Unfortunately, for many, their doom was forecast early on for three reasons. The first reason was the lack of a regulatory body or institution to monitor medical schools. Secondly, there was no consistent set of acceptable standards to which each school was held accountable, and, thirdly, the medical schools were producing a large number of physicians. In response to the over production of physicians, some reformers had developed a strategy of "promoting scientific medicine to reduce output" (Brown, 1979, p. 136).

During this same period Brown (1979), Bean (1976), Morais (1966), and Postell (1959) report on medical education in America. These authors noted the disparity between incomes of physicians and the low status that

physicians held in the United States. Brown (1979) observes that the European trained physicians were disturbed by the low esteem of American physicians in comparison to German physicians. Bean refers to the American medical schools as "commercial diploma mills". Both Bean and Brown saw Johns Hopkins Hospital and Medical School as the standard upon which American medical schools should pattern their programs and curriculums. Johns Hopkins Medical School was modeled after German medical schools which promoted scientific medicine, research programs, the inclusion of medical libraries and laboratories within the medical schools.

An issue which surfaced early in 1900 was the desire of elite physicians to gain control of the medical profession. These physicians developed a strategy to decrease the number of physicians in practice, increase their income and raise the social status of the profession. Around 1910 these physicians' concerns were voiced through their professional organization, the American Medical Association (AMA). The AMA believed poverty among physicians in the early 1900's was the result of "overcrowding in the profession" (Brown, 1979, p. 135). The AMA encouraged physicians throughout the country to advocate legislative reform, control their state licensing boards, and pressure medical schools to standardize their admission criteria and curricula.

In 1904 the AMA (under the guise of medical reform), established the Council on Medical Education. They appointed Arthur Dean Bevan, a surgeon and part-time professor, to head the Council. The Council held a

conference in 1905 and invited the state licensing boards to attend. The agenda was to elevate U.S. medical education to the same standard found in England, France and Germany. The standard established was "(1) A preliminary education of four years of high school, (2) a four-year medical course, and (3) passing an examination before a state licensing board" (Brown, 1979, p. 139).

In 1906 the Council inspected the existing 160 medical schools. The information obtained was sent to the state licensing boards. In 1907 the Council established letter ratings (A,B,C) for all medical schools and rated each school accordingly.

The impact of the Council's report was significant. Those medical schools most vulnerable to poor ratings either merged, combining facilities and staff, or closed. So by 1910 the number of medical schools had dropped from 160 to 131. While the Council had neither legal authority nor power to close the medical schools it had become a strong political force and had a major influence over the state boards. The impact of the Council's Report was also felt by Black medical schools. It resulted in the closing of Knoxville Medical College in Tennessee and Louisville National Medical College, in 1910 and 1911 respectively.

The Carnegie Foundation for the Advancement of Teaching became the next vehicle by which Bevan attempted to gain control of the medical profession for the Council. He believed he needed a neutral party not associated with the medical profession that had strong public support and could

attract funding from philanthropists. Bevan felt that this organization could criticize medical schools without creating dissension within the medical profession. Bevan met with Henry S. Pritchett, the president of the Carnegie Foundation in 1907, and discussed the possibility of a co-sponsored study on medical education. Pritchett saw this opportunity as a chance to create academic standards for colleges throughout the U.S. and to influence the standards of professional education.

Pritchett met and discussed the co-sponsored study of medical education with Charles Eliot, a trustee of the Carnegie Foundation and the president of Harvard University. Eliot was also a trustee on Rockefeller's General Education Board, and the Rockefeller Institute for Medical Research. Pritchett also spoke with Dr. Simon Flexner, who was the director of the Rockefeller Institute. Flexner saw the significance of the study and recommended his brother Abraham Flexner be appointed to direct the study.

Cobb (1981) and Brown's (1979) research on Abraham Flexner (1866-1959) is lengthy. Abraham Flexner was born in Louisville, Kentucky. He was reared by his Jewish parents who were poor immigrants. Flexner attended the University of Louisville and upon completion taught in the public school system. In 1886, Flexner obtained his A.B. degree from Johns Hopkins and later received his A.M. degree from Harvard in 1906. Flexner spent some time in Heidelberg in 1908, as noted by Brown (1979) where he wrote an unsuccessful book The American College. At the end of the

summer of 1908, "Flexner returned from Europe unemployed and prepared to do almost anything" (Brown, 1979, p. 144).

Abraham Flexner met with Pritchett seeking employment upon his return to the U.S. and was asked to conduct the study on medical education. In November 1908, Pritchett gained approval from the Carnegie Foundation to conduct the study and for the Foundation to appropriate the necessary funds. "With their approval, Flexner immediately began his study, Bevan directed the reform campaign, Pritchett financed it with Carnegie's money and Abraham Flexner implemented it" (Brown, 1979, p. 145).

Flexner visited all 160 medical schools in both the U.S. and Canada. Flexner was most impressed with Johns Hopkins medical school, his alma mater. He saw Johns Hopkins as being closely aligned with medical schools in England, France and Germany. Flexner decided to use Hopkins as the model by which to evaluate all other medical schools.

Johnston (1984) makes the point that the intent of the Flexner Report was to raise the standards of medical education and to stop the "medical commercialism" that existed. However, this author also notes only a page and a half of this seven-hundred page document was committed to "The Medical Education of the Negro."

Brown (1979) points to the disturbing reality of the Flexner Report of 1910.

> The very clear consequence was to be an across-the-board reduction in the production of doctors, with especially large reductions in the numbers of poor and working-class young men, Blacks, and women entering the medical profession.

> The social class and status of medicine would be raised, together with the incomes of physicians, to a level appropriate to the role in society. These changes were made necessary, according to Flexner, by the requirements of scientific medicine as well as by medicine's new social role (Brown, 1979, p. 146).

Flexner according to Brown (1979) inspected all of the medical schools and completed his report within a period of eighteen months.

> His whistle-stop tour and his acerbic comments on what he saw gave him a reputation, even among medical reformers, for being erratic and hasty in judgment. The medical faculty at Howard were insulted and in return cast aspersions on his ability while the faculties at lesser schools merely bristled (Brown, 1979, p. 146).

It was noted by Brown that Flexner's recommendations and criticisms of American medical education conformed to those established by the leading medical profession reformers. The Report recommended:

- A minimum of two years of college for admission to medical school.
- Prerequisites of biology, chemistry and physics.
- Standardization of the medical school curriculum with thorough grounding in the laboratory sciences and supervised clinical supervision in the third and fourth years of medical education.
- The requirement of medical libraries and laboratories as prerequisites for licensure.
- Closure of five of the seven existing Black medical schools.
- Closure of the three existing women's medical schools.

Flexner's recommendations resulted in an overall reduction in the number of physicians being produced, especially in the number of poor and working class individuals, and a reduction in the number of Blacks and women entering the medical profession.

Those medical schools unable to meet the requirements were forced to close by the AMA and its Council on Medical Education. Of the approximately 160 medical schools in existence, approximately 70 survived (the number of existing medical schools varied from one source to another). The repercussions of the Flexner Report for Black medical schools was far more devastating. It has led more than one researcher (Brown, 1979; Johnston, 1984; Shea and Fullilove, 1985; and Smith, 1984) to question Flexner's objectivity, the thoroughness of his investigation of Black medical schools, his insights and his inflexibility in making recommendations that would determine their continued existence or death. Of the seven schools established post-Reconstruction, only two met the standards outlined in the Flexner Report, Howard University College of Medicine and Meharry Medical College. Yet, as noted by Smith (1984) that section of the Report specifically dealing with Black schools "Medical Education of the Negro" was less than two pages. The criticisms that followed the publishing of the Flexner Report were reported by several authors.

As noted by Johnston (1984) and later referenced to by Brown (1979), it would appear Flexner selectively employed a dual standard in evaluating Black and White medical schools.

It was well noted by Cobb (1981) and Johnston (1984) that Flexner did not take under consideration two significant factors. First, the "separate but equal" doctrine of 1896 had effectively created a segregated society hence closing the doors of White medical schools to Blacks.

Johnston notes, five of the seven Black medical schools in existence at that time were forced to close their doors

> After being termed 'ineffectual' by the Flexner Report because the Negro needs good schools rather than many schools. Nothing will be gained by way of satisfying the need or of rising to the opportunity through the survival of feeble, ill-equipped institutions. The subventions of religious and philanthropic societies and of individuals can be made effective only if concentrated. They must become immensely greater before they can be safely dispersed. Johnston indicates that only Howard University College of Medicine in Washington, D.C., and Meharry Medical College in Nashville, Tennessee, survived the ultimate judgment of this report, which stated that Meharry College and Howard University are worth developing and until considerably increased benefactions are available, effort will wisely concentrate upon them (Johnston, 1984, p. 223).

Secondly, with the forced closing of five Black medical schools, the two remaining were in essence responsible for producing an adequate number of Black physicians to meet the health care needs of approximately ten million Black Americans for the next twenty-five years. Flexner did not acknowledge the contributions the schools had made during their existence. Wilson (1986) reports more than one thousand Black physicians had graduated from these schools, greater than half had passed their state board examinations enabling them to practice.

The contributions of the Black medical schools were also recognized by Johnston (1984). Many of the small Black medical colleges not only trained Black physicians but prepared them to take on leadership positions with the National Medical Association during the first half of this century. Dr. John A. Kenney, Jr., a graduate of Leonard Medical College in North Carolina, became the editor of the Journal of the National Medical Association for 32 years as well as serving in the capacity of the 14th president for the NMA. He became a well respected physician in Tuskeegee, Alabama as well as the personal physician of Booker T. Washington. Another Leonard graduate, Dr. John P. Turner served as president for the NMA in 1921. Dr. Frank Hargraves, also a graduate of Leonard Medical School, served as the 16th NMA president and became a prominent physician in Wilson, North Carolina. Dr. Hargraves founded a tuberculosis sanitarium in Wilson, North Carolina. Finally, a graduate of the Knoxville Medical School, Dr. H. M. Green, became the 23rd president of the NMA. Dr. Green also became the co-founder of the National Hospital Association in 1923.

Dr. R. Stillman Smith obtained his first M.D. degree from West Tennessee and received a second M.D. degree from Meharry the following year. Dr. Smith was also a National Medical Association president. Dr. William M. Lane obtained his medical degree from West Tennessee and then received his M.D. from Howard. Dr. Lane became an outstanding professor of surgery at Howard Medical School. Johnston (1984)

contends that "in spite of the severe shortage of faculty, facilities, and finance, these institutions were early attempts to bridge the opportunity chasm for Blacks in the early 20th century. As a group, their contribution far outweighed their deficiencies" (p. 225).

He concludes by saying:

> The lesson to be taken from the Flexner Report is that the ultimate answer to the medical manpower problem as well as other health problems in the Black Community rests ultimately on the shoulders of the citizens served by these institutions. Were it not for a self-sacrificing faculty, staff, and student body, as well as the generosity of only a small handful of philanthropic concerns and government subsidy, Meharry and Howard would both be lost in the pages of history as are the five Black institutions that closed as a result of the Flexner Report (Johnston, 1984, p. 225).

It would also appear that Flexner gave little thought to the need for Black physicians. Smith (1984) suggests that the consequence of this reduction in Black medical schools was a reduction in the number of Black physicians to be educated for many years. He points out Black physicians were at a premium during this period in history; he even refers to them as an endangered species.

The period following the sanctioning by the Flexner Report was addressed by Brown (1979) and Shea and Fullilove (1985). These authors note funding was cut to five of the seven Black medical schools based upon the recommendations of Flexner. In response to the closure of these schools Brown reports a further decline in medical care for Blacks occurred. In 1910, the ratio of White physicians to White people was 1:684 while the ratio of Black physicians was

1:2883 Black people in the United States. Shea and Fullilove indicated "the pattern of Blacks entry into the medical profession was fixed from the time of World War I to the 1960's" (Shea and Fullilove, 1985, p. 934). These authors report no more than 2 to 3 percent Black students entered American Medical Schools from 1920 to 1964. This limited entry of Blacks to medical schools continued even after World War II with as few as 10 to 15 Black students graduating from the mainstream medical schools each year.

By 1918 Pritchett realized the opportunity for Blacks to obtain a medical education was being destroyed as a result of the Flexner Report. Pritchett voiced his concern over the "grave injustice done to the Negro schools" (Brown, 1979, p. 153). He too became aware of the duplicity in practices. The White Southern medical schools were shown greater leniency than was shown to the Black medical schools. "Within a decade of his cordial meeting with Bevan at the Chicago Club, Pritchett had come to view the Council's power in much the way Dr. Frankenstein viewed his own creation" (Brown, 1979, p. 153).

b. <u>The Role of Howard and Meharry Medical Schools During this Period of Exclusion</u>. Blackwell (1981) and Cobb (1981) suggest no two institutions have played a more significant role in educating Blacks in medicine and other health care professions than Howard University and Meharry Medical College. These authors indicate that these two institutions absorbed the responsibility for educating Black Americans during a period when the exclusion of Blacks from

mainstream medical schools was the accepted policy and practice. These two medical schools developed not only the formal medical curriculum, but also provided the clinical training, internships, and residencies for their Black students. Blacks were excluded from medical training throughout the South and for the most part, in other sections of the country as well.

The Flexner Report was not the only factor leading to the exclusion of Blacks in medicine. Opportunities for Black Americans to obtain a medical education were also restricted because of segregation, discrimination, and widespread racism following the implementation of the "separate but equal" doctrine. During the late 1800's and early 1900's, Black medical students were restricted to training in historically Black hospitals whether they were graduates of the two Black medical schools or graduates of traditionally White medical schools. Howard and Meharry Medical colleges were forced to establish teaching hospitals because of racism, segregation and discrimination. Howard University founded the Freedmen's Hospital and Meharry Medical Colleges founded the Hubbard Memorial Hospital. A large portion of the clinical training that Black interns and residents received was provided by these two hospitals. Black hospitals such as Homer C. Phillips (St. Louis), Provident (Chicago), and Flint Goodrich (New Orleans) also played a major role in providing clinical experience for Black medical students.

Blackwell (1987) notes that Blacks were unable to hold faculty positions in traditionally White medical schools because White students objected. Blacks were restricted from administrative positions in these schools because of racism and discrimination. Most practicing Black physicians were excluded from joining the local, state or White medical associations or societies. As a consequence, Blacks were prohibited from affecting health care policy that impacted upon the lives of Black Americans. Blacks were confined to the Negro medical ghetto. Commenting on the Negro medical ghetto, Cobb (1981) notes that no one from the medical profession spoke out for quality health care for all citizens. Cobb stated:

> The pundits of the pulpit, science, and academe from New Orleans to Philadelphia, especially, and even Boston, were thundering one thing or another to show that from the religious viewpoint the Negro was something other than a descendant of Adam, or from the scientific aspect that his skull was but a helmet for resisting heavy blows while that of the White man was a temple divine. Thus, the Negro medical ghetto gradually came into being. The Black medical schools and the hospitals connected with them formed the nucleus. Negro hospitals, often makeshift, had to multiply because of community need (Cobb, 1981, p. 1222).

Blackwell (1987) notes Howard and Meharry Medical College not only provided for the health care needs of Black Americans, but they also took on the responsibility of preparing their graduates to obtain leadership roles in the general society. The success of these two schools can be measured by the number of Black physicians they trained. As late as 1967 more than 83 percent of the 6,000 Black physicians practicing medicine at that time had obtained

their medical education from either Meharry or Howard Medical College.

According to Shea and Fullilove (1985) up until 1945, 26 of the 78 medical schools in existence were closed to Black students. These schools were located in the Southern and bordering Southern states. In 1948, the University of Arkansas was the first of these Southern schools to desegregate. Segregation there was brought to an end by lawsuits the National Association for the Advancement of Colored People (NAACP) filed. In 1948, 25.5 percent of the population in these Southern states was Black, and all of the 234 Black medical students being trained in the South, attended Howard and Meharry Medical Colleges. In 1949 the National Medical Association, established in 1895 as a result of Blacks being denied access to the American Medical Association, petitioned the American Association of Medical Colleges (AAMC) to speak out against the racism that existed in medical schools. The AAMC declined indicating that they lacked authority over the medical schools. The racial barriers continued and as recently as 1960, Blacks were prohibited from attending 12 of the 26 Southern medical schools, and the others only admitted a few token Blacks. Duke, Emory, and Johns Hopkins medical schools admitted their first Blacks in 1963. In 1966 the last of the color bars were removed from the 26 Southern medical schools.

Shea and Fullilove also indicate during this same era racism was rampant throughout the Southern hospital system. For example, 24 of the 127 Veterans Administration hospitals

contained separate wards for Black patients, and Blacks were excluded from 19 of these hospitals for services other than emergency treatment. The Veteran's Administration did not require complete desegregation until 1955. The Hill-Burton Act which was the most significant federal health care legislation prior to medicare and medicaid supported the "separate but equal" doctrine. According to Shea and Fullilove this legislation was developed to rebuild the American hospital system after World War II. More than 1.6 million dollars was appropriated under the Hill-Burton Act to construct approximately one million hospital beds. The authors note that the clause supporting the "separate but equal" facilities was not removed by the appellate court until 1964. One hundred and four segregated hospitals were built with Hill-Burton funds prior to this court action.

According to the Johnson Report (1987), prior to 1963 only minimal funds were provided for the health professions. Congress enacted the Health Professions Educational Act of 1963 because of drastic shortages of health professionals anticipated. The funds enacted by Congress provided for the construction of new schools and made available low-interest loans for medical students. In 1965, provisions were also made for capitation grants to medical schools to increase class sizes. In spite of the increased numbers of medical students benefiting from federal assistance, Blacks remained underrepresented.

The Johnson Report (1987) also looks at this historical period and indicates legal assent for racial segregation in

health care and higher education was terminated via the passage of the Civil Rights Act of 1964 and by the Medicare and Medicaid amendments to the Social Security Act of 1965 which included strong civil rights provisions against the "separate but equal" segment of the Hill-Burton Act. These new legislative acts required integrated patient services and facilities. Yet, this report notes further action was necessary to bring parity into the medical school student body. Some of the Report's recommendations included increasing minority recruitment efforts, re-evaluating medical school's selection, admission's and enrollment policies and implementing retention programs at medical schools.

c. **Factors Leading Towards Improving Black Representation in Medical Education**. Blackwell (1987) addresses the factors leading to a greater commitment to increasing the number of Blacks entering medical education by saying:

> Prior to the escalation of the civil rights movement, there was no substantial evidence of serious commitment by the White medical establishment to the medical education of Black and other minority students. The overall shortage of Black physicians is suggested by the fact that as the 1970's began, Black Americans represented approximately 11.1 percent of the total U.S. population but only 2.1 percent of all practicing physicians in the nation. The paucity of Black applicants to medical schools exacerbated the situation (Blackwell, 1987, p. 77).

Blackwell believed this disparity needed to be redressed. He saw the dearth of Black physicians, greater awareness of the poor health care provided to underserved

areas, pressures from the civil rights movement, greater awareness among medical school administrators and faculty as having created major changes in policies within the power structure of the medical profession.

It is the opinion of Blackwell (1987); Shea and Fullilove (1985); and the Johnson Report (1987); that, in response to the consciousness raising, many efforts were directed at redressing past and current injustices and inequities in medical education. These efforts were sponsored by several health care professional organizations, included were the Association of Medical Colleges (AAMC), the National Medical Association (NMA), the American Medical Association (AMA), and the American Hospital Association (AHA). Many large foundations also became committed to creating parity in the field of medicine for Blacks. The Ford Foundation, Carnegie Foundation, Alfred P. Sloan Foundation, Josiah T. Macy Foundation, Rockefeller Foundation, Robert Wood Johnson Foundation, and many others were among these.

The federal government as observed by Blackwell (1987) began making greater efforts to bring equity into medical education by creating more scholarship programs and making direct financial assistance available to medical schools. The AAMC played a significant role in creating greater diversity amongst the medical school student population. This was done with support from the leadership and the membership. This move towards greater diversity was contrary to AAMC's prior claim that AAMC lacked authority

over medical schools. So, in 1968 with new policies established, AAMC embarked upon programs that would bring more parity within the student body. These changes impacted on recruitment efforts, the selection and admission process, the enrollment of diversified students including ethnic, racial, economic and geographical diversity.

According to Shea and Fullilove (1985) AAMC received the first part of a 1.5 million dollar grant in 1969 from the U.S. Office of Economic Opportunity. These monies were appropriated to increase the educational opportunities for Blacks and other minorities within the health professions. The appropriations were utilized to fund 50 minority programs at medical schools and other health professional schools, to develop the AAMC Office of Minority Affairs and the AAMC Medical Minority Applicant Registry (also known as MED-MAR), and to establish the biennial publication of the book entitled Minority Student Opportunities in United States Medical Schools.

To address the problem of Black underrepresentation in medical education, and to increase the number of Blacks entering traditionally White medical schools, the AAMC organized one of two task forces on Minority Student Opportunities in Medicine in 1970. The main objectives of the task force were to eliminate the barriers which prohibited full minority participation in medical education, develop programs to create greater access to medical schools for minorities, and develop implementation programs to assist in this process. The task force also recommended

minority representation be increased to 12 percent of the total medical school enrollment by 1975-76 (In 1970 Black students only represented 2.8 percent of the total medical school enrollment). The National Medical Association supported this recommendation as well as the recommendation for informational and tutorial centers.

At least four additional recommendations were made by the 1970 Task Force. These recommendations had long-term implications. It was recommended that: (1) a central national organization be established to handle all financial aid to minority medical students; (2) an educational opportunity fund be established to resolve the financial aid problem; (3) regional offices be established to disperse information regarding health professional opportunities; and, (4) the AAMC seek additional funding to expand the Office of Minority Student Affairs and the scope of its services. Blackwell says these recommendations received widespread support from medical colleges, the AAMC, the American Medical Association (AMA), the National Medical Association (NMA, the historical Black organization of physicians), the American Hospital Association (AHA), the federal government, and several major foundations.

The Johnson Report (1987) indicates efforts to create scholarships and financial aid, and to develop special recruitment and minority retention programs peaked in the mid-1970's. Around this same period expanded minority student interest in medicine and an increase in medical school enrollment also peaked. The report states the

opening of 25 new medical schools between 1964 and 1974 was partially responsible for the increase in enrollment. Atlanta's renowned Morehouse College began to develop plans for a new medical school early in 1970. The report also states the composition of the rapidly growing medical student body, increased from an average of 33,000 students per year in the 1960's to approximately 56,000 per year by 1975-76. A decade later, this number had increased to 67,000. The medical school composition shifted from the longstanding White elitist male population to a more diversified group of Blacks, other ethnic groups, women and students from low income families.

4. **From the Mid-20th Century to Today: Current Trends.** In spite of the efforts made to bring equity into medical education, parity was never obtained. The findings of the report entitled "Minorities and Women in the Health Fields" (1987) are supported by Odegaard (1977). Black representation in first year medical school classes peaked at 7.5 percent in the mid-1970's but declined thereafter to 7 percent or less. In 1986-87, Blacks represented 7.0 percent of the first year medical school class (see Appendices A and B). Keith, Bell, Swanson and Williams (1985) sought resolutions to declining enrollment. They proposed increasing the number of Black and other minority physicians through affirmative action programs.

The increase in medical school enrollment between the mid-1960's and the mid-1970's provided the opportunities to increase the number of Black students entering medical

schools without reducing the White medical student enrollment. In 1970-71 traditionally Black medical schools graduated 66 percent of all Black medical students; ten years later they graduated only 22 percent of all Black medical students. The nation's commitment to create equity in medical education climaxed in 1975 at around 7.5 percent and then gradually declined. Several factors contributed to the decline in Black enrollment. Two heavily impacting court actions were the landmark U.S. Supreme Court cases of DeFunis vs. Odegaard (1974) and The Regents of the University of California vs. Bakke (1978). According to Blackwell (1987), both the DeFunis and Bakke cases threatened the legitimacy of programs designed to bring equity to Black students by rectifying past injustices to Blacks in the educational system. These cases questioned the use of subjective criteria versus the exclusive use of so called "objective" criteria when evaluating Black students. Both cases argued that the practice of utilizing subjective criteria when evaluating Black applicants to medical or law schools constituted reverse discrimination. Both cases ignored the discrimination practices against Blacks throughout the history of the United States.

DeFunis was admitted to law school; therefore, the decision to be reached by the Supreme Court was moot in this case. However, on June 28, 1978, a decision was rendered by the U.S. Supreme Court. It ordered the admission of Bakke to medical school and rejected as unconstitutional the process of "set aside" programs for minorities. Some

medical schools lost interest in achieving parity after the court's rulings on these cases.

In the late 1970's, less than ten years after a physician shortage was predicted, the federal government's Graduate Medical Education National Advisory Committee (GMENAC) predicted a surplus of physicians. The concerns regarding the surplus of physicians overshadowed the committee's recommendation to develop programs to increase the participation of women, Blacks and other minorities.

> The GMENAC predictions spurred a shift in policy toward diminished federal assistance for medical schools and direct student aid. Instead, increased emphasis was placed on programs such as the National Health Service Corps, which, in return for service, has provided training support for disadvantaged minority and majority students alike. Meanwhile, the incendiary rise in medical care costs, fueled, some experts think, by the physician oversupply, dominated health policy debates and eclipsed concerns about access to health care. Shifts in medical schools' outlook towards students who might need extra assistance occurred, too, during this period, because of the escalating resources required to train each student, above and beyond costs covered by tuition, and the overall rise in test scores of medical school applicants, minority and majority (Weisfield and Lewin, 1987, p. 7).

The enrollment patterns are reviewed by the 1987 Report on Minorities and Women in the Health Fields (see Appendices B, C and D). In spite of the continued efforts to increase minority enrollment in medical schools, the number of minorities entering and graduating has slowed down since the mid-1970's. The number of minorities applying to medical schools increased to 12.7 percent between 1974-75 and 1984-85, while the total number of applicants including Whites decreased. While the rate of acceptance for White

applicants increased, the rate of acceptance for minority applicants remained relatively stable during this same period. The acceptance rate of minorities is considered marginal since it has remained 6 to 7 percentage points lower than the overall acceptance rate.

In spite of the decline in the number of White applicants to medical school since 1974, the number of first-year enrollees continued to climb until the early 1980's. The acceptance rate for all applicants rose from 35.3 percent in 1974 to 54.6 percent in 1986. There was a decline in the acceptance rate for minorities from 44.3 percent in 1974 to 39.5 percent in 1976. There was a slight increase between 1976 and 1980. While the total number of minorities applying to medical school decreased by more than 300 since 1981-82, there was a slight increase in the number accepted.

When considering the various racial/ethnic categories, there is a contrast in the acceptance rate of minorities. Between 1975 and 1986 there were slight variations in the number of Blacks accepted to medical schools, from 41 to 44 percent. Comparatively, the acceptance rate for other minorities such as Mexican Americans increased from 52 to 58 percent while the acceptance rate for Whites, Asians and Commonwealth Puerto Ricans rose from 36 to 55 percent. The most significant increase occurred for the Commonwealth Puerto Ricans as opposed to Puerto Ricans residing in mainland United States, increasing from 34 percent in 1977 to 52 percent in 1981. This increase may be related to the

opening of two new medical schools in Puerto Rico in 1978 and 1979.

The belief that all medical schools joined efforts in 1968 to increase the number of minorities (Black Americans, Hispanic Americans, Mexican Americans, American Indians, and Asian Americans, see Appendix C) entering medical schools is supported by the Report on Minorities and Women. There were 266 Black first-year students, or 2.7 percent of the total student enrollment, greater than 75 percent of the Black students were enrolled at traditionally Black medical schools in 1968. Although more diversity has been achieved today, three Black medical schools, Howard, Meharry and Morehouse still account for a large proportion of the medical school enrollees. They admitted more than 24 percent of the first-year Black medical students in 1986. As previously indicated, the first-year Black enrollment reached its zenith in 1974, with 1,106 first-year Black students, equaling 7.5 percent of the total first-year medical school enrollment. In 1981-82, first-year Black students had increased slightly to 1,196 but they were only 6.9 percent of the total enrollment. Again to compare another minority such as the American Indians, in 1974-75 they peaked with 71 students (0.5 percent), then dropped as low as 43 students, then reached a high of 77 students in 1984-85. They have maintained consistent enrollment of 0.4 percent over several years. First-year enrollment for Latino students reflects modest increases during this same period. The Mexican American students increased from 228

(1.5 percent) in 1975-76 to 306 (1.8 percent) in 1985-86 and the mainland Puerto Rican students increased from 78 (0.5 percent in 1975-76 to 136 (0.8 percent) in 1985-86.

The most dramatic increases occurred amongst the Asian American first-year medical school enrollees. There was a three-fold increase in first-year enrollees between 1975-76 and 1985-86. The number of Asian Americans rose from 282 (1.8 percent) in 1975-76 to 1,164 (6.9 percent) in 1985-86. Currently Asian Americans are no longer considered an underrepresented minority in medical education.

In 1986-87 minorities made up 19 percent of the total medical school enrollment in comparison to 4 percent in 1968-69. Although minority representation reflects strides during this period, Black progress has been slight or stagnant. The American Indian and Latino American enrollment seems to have stabilized over recent years.

While conducting this review of the literature another significant issue surfaced which impacts on the number of Blacks in medicine. Blackwell (1987) considered the high attrition rate of Black students to be one of the most serious problems. Blackwell sees the retention problem as having impacted more negatively on Black students than it has on White students. According to AAMC's report 38.6 percent of the minority students dropping out of medical school do so because of academic difficulties in comparison to 13.3 percent of the non-minority students who drop out. Approximately 41.0 percent of the minority students take a leave from medical school because of personal or family

problems in comparison to 38.5 percent of the non-minority students. And 7.2 percent of the minority students drop out because of financial difficulties in comparison to 4.6 percent of non-minority students.

According to one study Blackwell noted, Black Americans have an 87 percent retention rate throughout their medical education, as compared to a 97 percent retention rate for the total medical school population. The retention rates for Mexican Americans and Native Americans are only slightly higher, 88 percent and 89 percent respectively. The mainland Puerto Rican students have a dramatically higher retention record of 98 percent with the national average being 97 percent. The retention rate figures were reported as being slightly lower in a study conducted by Sleeth and Mishell (1977). This study shows an 81 percent retention rate for Blacks completing medical school as compared to a 96 percent retention rate for Whites completing medical school. It was noted that the issue of Blacks' underrepresentation is clouded when grouped together with other minorities such as Asian Americans.

The final trend reported here is the underrepresented minority graduation rates. The 1987 report on Minorities and Women in the Health Fields says that among minorities, Asians and Latinos (excluding Mexican Americans or mainland Puerto Ricans) have achieved parity in the numbers graduating from medical schools. Since 1974-75, American Indians have been 0.3 percent of the total medical school graduating classes, Blacks have reached 5 percent, and

Mexican-Americans and mainland Puerto Ricans have comprised around 2 percent of the total medical school graduating classes. The report finally indicates one-fifth of the Black physicians in 1985-86 graduated from the historically Black medical schools (Howard, Meharry and Morehouse) while the other 124 medical schools in existence graduated the remaining four-fifths of the Black physicians.

5. Current Barriers Leading to the Continued Underrepresentation of Blacks in Medicine Today

There are many barriers which impact on the number of Blacks entering medical training. The result is inequity in medical education for Blacks. The concept of providing special programs for recruitment, retention and graduation of minorities in medicine has been frequently criticized and challenged in the courts according to Prieto (1986). The Reagan administration did not support these special programs; consequently, cutbacks in financial aid and program support occurred. These cutbacks have impacted negatively on programs to create greater diversity within the medical profession.

The strides made in recent years are now being threatened by the high cost of medical education. These costs are reflected in high medical school tuition costs as well as in the indebtedness of Black and White medical school graduates alike. Prieto observes, "the rising cost of medical education may be the single most significant factor in creating an elitist profession once again."

a. **Academic Unpreparedness**. Educational deficits amongst Blacks were cited as being major factors in the underrepresentation of Blacks in medical education. The Johnson Report (1987) addresses the academic skills of Blacks. If greater parity is to be achieved in medicine and other health professions then more effort must be placed on improving the overall academic performance and ability to compete in the educational environment. The challenge for parity comes at a time when Blacks are losing ground to White students at each phase of the educational pipeline. The number of Blacks entering and graduating from college has declined since 1975 despite the increase in the number of Blacks graduating from high school.

While many reports reflect a void in the quality of education provided for all students, an even more dismal situation exists for Black students. Black students are more likely to be enrolled in elementary and high schools in areas suffering from economic deprivation. Schools in these areas are more likely to have limited parent involvement, and apathetic faculty. These schools are plagued by social and behavioral problems, therefore there is limited emphasis on academics. These factors combine to lower academic achievement of Black children by age ten. Many Black students are arbitrarily placed in vocational courses or placed in low track classes which lack intellectual stimulation and challenge and have low expectations. This situation reinforces the belief in these students that they cannot meet high academic standards.

If Blacks are going to succeed in medical school it will be important for them to obtain a stronger science and mathematic background. While 45 percent of the Asian Americans and 34 percent of the Whites graduating from high school in 1982 had three years of science, only 23 percent of the Blacks graduating that year had three years of science. The statistics for students taking mathematics are comparable, with 68 percent of the Asian Americans and 50 percent of White students having three years of mathematics and 39 percent of the Black students having completed three years of mathematics. Although most of the students entering medical education have had a strong undergraduate concentration in one of the sciences, Blacks are less likely to take advanced college courses in science and mathematics (The Johnson Report, 1987).

The issue of educational deprivation is addressed by Shea and Fullilove (1985). AAMC's decision to bring greater diversity into medical education, was a commitment towards desegregation. This decision was seen by these authors as a drastic move away from the "separate but equal" doctrine which had been separate but never equal. When the admission criteria are removed as a barrier, the quality of education Blacks receive surfaces as a significant problem. Blacks have a difficult time competing academically with White students as a result of the many years of educational deprivation they have encountered.

Sleeth and Miskell (1977) speak of higher failure rates for minority students as evidence of poor academic

preparation. These authors conclude medical schools are limited in their capacity to increase the number of Blacks entering medical school until the quality of education Blacks receive has been addressed. Most authors in this review agree the federal government is unlikely to establish major programs to enrich the science and mathematics preparation of large numbers of minority students at the secondary or higher educational level; therefore, medical schools will have to achieve equity through special programs for Black students at the post-graduate level. Shea and Fullilove allude to a lack of "qualified" Black applicants as being a key factor in the slow increases of Blacks admitted to medical schools.

The question of "qualified Blacks" was noted by Wilson (1986). He sees the cause of Black underrepresentation in medical education as unclear and ill-defined. He expresses concern over the term "qualified". Wilson points out the term "qualified" needs to be studied because its present definition is debatable. Wilson feels the cost of education is a greater problem for Blacks than is the number of qualified Blacks. This author also points to another problem Blacks face, which is the lack of role models available to them in the medical profession. This issue concerning a lack of role models was also addressed by Pinn (1984). Pinn indicates Black medical students need to be aware of and view all medical specialties as potential areas of practice. They must not limit themselves to primary care medicine. If Black medical students are exposed to Black role models in

all medical specialties they will potentially view all medical specialties as areas in which they can make valuable contributions.

Educational deprivation was also seen as a significant problem by Jones and Etzel (1988). The causes of educational deprivation among minorities is complex. The educational program in the public school system (the system in which many minority students are educated) is weak academically. Minority students lack family encouragement because their families focus on meeting their basic needs, food and shelter. These authors feel the consequence has been a high drop out rate among minority high school students. They conclude a smaller minority applicant pool exists due to the high school drop out rate. This rate in turn impacts on the number of high school graduates entering higher education (time period not noted). It should be noted that most of the literature reviewed indicates the number of Black students graduating from high school has increased suggesting conflicting theories amongst the authors.

According to a report by the New England Board of Higher Education Task Force on Black and Hispanic Students Enrollment and Retention in New England (1989), the number of Blacks and Hispanics graduating from high school has increased. In 1968, 58 percent of Black American students between the ages of 18 and 24 graduated from high school; in 1976 68 percent of the Black American students graduated from high school and by 1985, 75 percent of the Black

American students graduated from high school. This report shows that the high school completion rate for Blacks is improving. However, this report indicates that only 26 percent of the Black American students graduating from high school in 1985 entered college. The Task Force saw Black college enrollment as a greater concern than the high school graduation rate of Black youth.

b. Economic Deprivation. The cost of medical education is noted as a barrier to Blacks obtaining a medical education by the Johnson Report (1987), (see Appendix E). While 7.6 percent of the White students entering medical school came from families with annual incomes less than $15,000, 22 percent of the minority students entering medical school came from families with incomes less than $15,000. The average minority medical school student graduated with greater than $25,000 debt, and more than 38 percent graduated with debts greater than $30,000. These students and their families face heavy financial debt by the time they complete their education. Mangan (1988) supports the belief cost is a significant barrier for minorities seeking a medical education. Blacks made up 7 percent of the medical school applicants in 1978 and they made up 7.8 percent in 1987. The average cost of public medical school education for in-state residents in 1988 was $13,434 a year and $19,890 a year for non-residents. The average cost for private medical schools in 1988 was $24,824 a year. This article concurs with the Johnson Report (1987) by saying four out of five medical

school students graduate with some debt while 20 percent of these students graduate with $50,000 or greater in educational debts. Many minority students have undergraduate school loans that haven't been paid and therefore can't afford the high cost of medical education.

Cost is also seen by Blackwell (1987) as creating a barrier for Blacks in higher education. He identifies five economic barriers to higher education as being:

> (1) high rates of unemployment; (2) inadequate income to support students in higher education programs; (3) low occupational status; (4) limited access to scholarships and fellowships; and, (5) fear of excessive indebtedness resulting from loan programs. For more than thirty years, the unemployment rate among Black Americans has been consistently about twice that of the White population. In 1950 the unemployment rate for White America was 4.9 percent but 9.0 percent for Blacks and other races. By 1954 unemployment for Whites had risen to 5.0 percent while the rate for Black unemployment rose to 9.9 percent, a 2:1 Black-White ratio. The ratio remained at this level except for a few years in the 70's when it dropped to 1.8:1 (Blackwell, 1987, pp. 17,18).

Unemployment for Black teenagers is even higher, 34.2 percent. Black teenagers who graduate from high school are more likely to be unemployed than White teenage high school drop outs. Therefore, Black teenagers have less opportunity to save towards a college education. Because many Black families are impoverished and can barely provide basic needs, they have little or no money to pay for college education (Blackwell, 1987).

Finally, Jolly, Taksel, Beran (1988) in their article on U.S. Medical School Finances conclude by stating that average debt for 1987 medical students was $2,122 more than

the debt incurred by the 1986 graduates. More than 17 percent of the 1986 and 1987 medical school graduates incurred debts over $50,000. The students with the highest debts are females, minorities and older medical students.

c. **The Lack of Commitment from Medical Schools.** The lack of commitment on the part of some medical educators is also seen as another barrier to medical education for Black students. Blackwell (1987) sees the decline in Black enrollment as indicative of the loss of commitment of medical schools to bring equity into medical education. This lack of commitment is also reflected in the decrease in funds for the recruitment of Black students. The loss of commitment is evidenced by the eagerness of medical schools to embrace the Bakke decision, discontinue special admission programs and cease to seek other methods to achieve compliance with the law. A greater focus on "objective" admission criteria is seen as evidence of the loss of commitment to achieve racial and ethnic diversity.

There were a total of 122 medical schools in the United States in 1980. In spite of forty additional medical schools established between 1968 and 1980 there was no significant increase in Black medical school enrollees. Many of the Black students are enrolled at Howard and Meharry Medical Schools. These two schools accounted for 20 percent of all Black medical students enrolled. This compares to the enrollment of Blacks at 74 medical schools combined. He also notes according to AAMC statistics for fall 1979-80 more than 50 percent of the U.S. medical

schools enrolled twenty or less Black medical school students. However, greater than one-quarter of the 122 U.S. medical schools had an enrollment of ten or less Black medical school students.

The leveling off in admission rates of Black was also seen as a loss of medical school commitment by the Johnson Report (1987). Between 1977 and 1983 Black medical school applicants improved their MCAT scores. But in spite of this improvement, the number of Blacks accepted to medical school with MCAT scores of 8 or higher fell 1.5 percent from 1979 to 1983. The acceptance rate for majority students with comparable MCAT scores rose 2.9 percent. This decline in Black admissions to medical school was interpreted as a loss in commitment to create parity.

The loss in commitment on the part of medical schools was observed by Odegaard (1977) and was reflected in statistics similar to those presented by the Johnson Report.

d. <u>Traditional Admissions Criteria</u>. Another barrier Blacks face when seeking entrance into medical schools is the admission criteria established by the institutions. Because of the poor academic preparation many Blacks receive throughout their pre-collegiate educational years, they have difficulty meeting the established criteria. Therefore, many medical schools have had to rethink and develop criteria which are more reflective of the attributes necessary for Black students to achieve medical school success. These non-traditional criteria are not a privilege designed especially for Blacks nor are they a deviation from the

normal procedures utilized by medical schools for many years. According to Blackwell (1987) admissions personnel in medical schools acknowledge they have always utilized a combination of traditional and non-traditional admissions criteria to evaluate medical school applicants.

The emphasis placed on these criteria has always varied from one period in time to another in accordance with whatever circumstances existed at the time. The emphasis on specific admission criteria also varied from one institution to another. Some of the objective admission criteria are scores obtained on the Medical College Aptitude Test (MCAT or new MCAT), college grade point average (GPA), the standing of the undergraduate college attended, and references. Many institutions have waived the traditional criteria based on one's ability and willingness to make substantial monetary contributions to the medical school. These contributions were considered to be objective criteria. The factor which distinguishes objective from subjective criteria is the manner in which medical schools readily qualify their numerical cut-off points.

Blackwell's study of traditional medical school admissions criteria revealed although objective criteria are used to evaluate candidates for admission, the overall criteria include subjective criteria. From 1974 through 1978 medical school standards became more rigid as the Bakke case hung in the balance. He notes greater weight was placed on grade point averages and the new MCAT scores. He also points out the number of medical school students with

4.0 GPA increased from 19.7 percent in 1970 to 39.5 percent in 1973. By 1974 the number of 4.0 students had reached 44.2 percent and by 1977-78 this number had peaked at 50.4 percent. During 1978-79 a decline was seen at 48.6 percent. During this same period the number of students entering medical school with a 3.0 GPA declined from 73.3 percent in 1970 to 50.8 percent in 1974. They continued to drop to 46.9 percent by 1978-79. Students with less than a 3.0 GPA dropped precipitously from 7.0 percent in 1970 to 1.8 percent in 1978 and 79.

Blackwell concludes that greater focus was placed on high GPA scores between 1970 and 1979. This standard was also reflected in the MCAT and new MCAT scores which were acceptable. He points out that White medical school applicants score higher on the MCAT examinations (approximately 2.5 points higher than the average mean score of many Black medical school applicants).

> This disparity is not explainable by greater intellectual ability or reasoning capacity of the one group over the other, as some have indeed advocated, but more so by cultural factors and the socio-economic condition or milieu from which the majority of Black students in medical colleges are drawn. The majority of White students have had long-standing experience with the kinds and quality of questions encountered in aptitude tests and are, therefore, psychologically prepared to answer them. Most are middle and upper middle class students who also had continued reinforcement in home, school, and peer group environments of the kinds of verbal skills required for success on these tests. a distinct majority of White medical school students come from homes with family earnings equal to or above the median family income of White families in contrast to the overrepresentation of Black students with low income origins. White students are financially more able to attend coaching

> schools and thereby raise their scores on MCAT's (Blackwell, 1987, pp. 89,90).

Subjective admission criteria were also discussed by Blackwell. It is more difficult to establish concrete measures when evaluating subjective criteria. "One must rely often upon personal hunches, judgments informed by experience, and astute observations as well as good common sense in making subjective appraisals of a candidates' merit" (Blackwell, 1987, p. 90).

The individuals participating in his study all agreed that subjective or non-traditional criteria played a significant part in their admissions decisions.

> These non-traditional factors included such things as: personal interviews; motivation for medicine as demonstrated by work experience; membership in a premedical organization, community and volunteer work, personal characteristics evaluated in interviews by members of the admissions committee; communication skills; working while carrying a full academic load as an undergraduate; maturity; sense of direction; promise for becoming leaders and contributors to the field of medicine; integrity; personal stability; commitment to service; ability to relate to people; awareness of world events; disadvantaged background; and, race (Blackwell, 1987, p. 90).

It is important to note most institutions depend upon traditional as well as non-traditional factors when evaluating applicants. Some of the Black students admitted to medical school during the early seventies were admitted with greater emphasis on subjective rather than objective admissions criteria. Some Black students were also admitted to medical school based on their academic ability scoring higher than their White classmates on their MCAT examinations or GPA's.

Blackwell finally states that:

> Medicine is a people oriented and people contact profession. It requires individuals who not only have excellent mental and intellectual capacities, but persons who are sensitive to the problems of others and who have the personality to work toward the accumulation of understandings of diverse personalities. Medical schools cannot rely solely upon performance on objective measures of evaluation for to do so results in mistaken assumptions about the kind of person who can be the most effective physician or health care specialist. Consequently, non-cognitive factors have come to occupy a position of paramount importance in admission decisions. This practice is so, despite the tendency to use rigid cutoff points when confronted with difficult choices. All medical schools insist that they wish to train the most well-rounded person to deliver effective health care services. Such a person is not necessarily the person with the highest MCAT score or with an 'A' average from a prestigious undergraduate college. Nor does this mean that a 'C' student with a good personality and high motivation is not such a person. A good balance must be made somewhere in between and that is undoubtedly why so many medical colleges suggest or insist upon personal interviews of all applicants (Blackwell, 1987, pp. 90,91).

Jonas and Etzel (1988) also addressed traditional and non-traditional admissions criteria. In looking at the traditional admissions criteria these authors found a high percentage of students in the 1987-1988 class entering medical school had a GPA of 4.0. However, these authors also found that medical schools have made efforts to utilize subjective criteria when evaluating medical school applicants. One hundred and twenty-three medical schools rely on interviews as a part of their admission criteria. One hundred and two medical schools conduct interviews which consist of more than one interviewer and one hundred and

eleven medical schools utilize subjective admissions criteria when evaluating medical school candidates.

e. **Hostile Environment**. The literature reviewed also identifies the hostile environment and racism as barriers to medical education for Black students. According to Hirschron (1988), minority students are often not seen as serious contenders in the medical academic arena. The poor performance of a few students has caused some faculty members to have a negative perception regarding the academic ability of minorities in general. These faculty members have an expectation of failure for all minorities, and believe minority students are not as capable as majority students. This phenomenon according to Love (1988) is called color blindness or color exaggeration meaning that the faculty have been exposed to some minority students who performed poorly academically and, therefore, transferred this perception to the entire race. Hirschorn (1988) indicates the negative perceptions regarding minority students amongst medical faculty members prevents them from helping minority students. They do not provide encouragement when minority students are doing poorly. The faculty inform minority students that they are doing well when they are barely passing with a "C".

Blackwell (1987) reports the assumption all minorities are "less qualified" than Whites is a manifestation of racism. It is reflected in all walks of life, from university or college admission practices, to job obtainment or economic advancement. This is an indication of the

societal attitude in an era which the Bakke decision was made.

f. **Political Implications**. Another barrier for Blacks in medical education as cited by the literature is the lack of government support to increase the number of Blacks and other minorities entering medical schools. According to Bazzoli, Adams and Thran (1986) opportunities for minorities and economically deprived individuals to obtain a medical education occurred because of the health manpower programs during the late 1960's and 1970's. The cost of medical education for first-year students with financial needs was dramatically reduced by programs such as the Health Professions Loan Program and the Scholarship Program for First-Year Students of Exceptional Financial Need. Access to medical education became a reality for many minority and low income individuals. However, in recent years tuition has soared while state and federal support has decreased significantly.

These authors analyzed a 1983 survey of resident physicians conducted by the American Medical Association. They found that racial, ethnic and socioeconomic barriers showed no significant difference when determining the type of medical school attended private or public if adequate funding was available. The amount of educational indebtedness was more closely correlated with family income rather than race or ethnicity. Although resident physicians coming from low income families incurred greater debt the amount of indebtedness was smaller than anticipated.

These findings have many policy implications, especially for future federal funding for medical education. The federal government has decreased the amount of funding allotted medical educational loan programs. Although the government has provided some funding for individuals from low income families, access to these educational loans has decreased. Decrease in funding will create greater debts for individuals from low income families. Access to medical education will be dramatically decreased without the assistance of these federal programs. Bozzoli, Adams and Thron conclude that policymakers must evaluate the benefits Blacks and other minorities contribute to the medical profession when making decisions to cut federal funding for medical education.

Tuckson (1984) also sees the shift in government policy as a barrier to medical education for Blacks. Health care costs have increased from 6.2 percent of the Gross National Product in 1965 to almost 10 percent in 1983. Cost containment has become a priority with the change in political attitude of the country. Public policy is now focused on the bottom line rather than access to health care for the poor. Tuckson links the soaring of health care cost and inflation to the Graduate Medical Education National Advisory Committee's (GMENAC) focus on the physician surplus in the United States by 1990. This Committee recommended a reduction in medical school enrollment by 1984. This policy decision and recommendation did not take into consideration the underrepresentation of Blacks in medical education,

their underrepresentation in the medical profession or the poor health status of Blacks. Tuckson notes the following.

> The cost inflation and competitive implications of such an oversupply of physicians in the marketplace are obvious. However, such a general policy limiting the absolute number of new physicians, without an equitable and careful consideration of the special needs of minorities, could prove disastrous (Tuckson, 1984, p. 978).

The impact of public policy is viewed by Blackwell (1987) as a significant factor in creating equity in medical education for Blacks. Federal and state governments must be committed and not compromise on policies which ensure equity in medical education. Bringing equity into medical education is much more than eliminating a dual educational system. It also combats the policies and practices which exclude many minorities from institutions within the United States. A commitment is needed at the federal, institutional and private levels. A national standard to achieve equity should be established at the government level.

This commitment could open opportunities for all Americans. This policy and stance should be resilient enough to withstand any resistance. Blacks, Hispanics, Native Americans, and Asians must be privy to access and graduation as are White students in this country's professional schools.

The federal government should be the vehicle for positive and creative change. The leadership of this country should encourage states and institutions to broaden the educational opportunities available. Without positive

direction from the leadership, progress in the area of educational opportunity either stands still or deteriorates. History, especially during the 1970's, speaks to the force federal government can be in creating positive change.

> The use of capitation grants, a commitment to affirmative action in higher education, and the expressed willingness of the federal government to cutoff funds to institutions not in compliance with court orders, reinforced by the moral leadership of the presidency to enforce the law, all facilitated expanded access to graduate and professional schools (Blackwell, 1987, pp. 354,355).

It is vital that the Congress and the Supreme Court of the United States utilize their authority to protect the rights of all citizens to ensure equal access to higher education. It is essential for Congress to legislate measures that will safeguard existing rights from Administrations not inclined to enforce these rights, and to create laws, where necessary and to clarify and strength existing laws.

Blackwell concludes by stating the federal government can create change at the institutional and legislative levels. A renewed commitment to attain equity must be encouraged. A commitment to diversity in undergraduate, graduate and professional schools must be made.

6. <u>Need for Blacks in Medical Education</u>

a. <u>Medically Underserved Black Communities: Practice Locations</u>. The disproportionately small number of Blacks in medicine has resulted in problems for Blacks such as medically underserved Black communities, poor health status amongst Blacks and a limited number of Black medical role

models, medical educators and researchers. According to Keith, Bell, Swanson and Williams (1985) while the main goal of affirmative action programs in U.S. medical schools was to bring parity to the medical profession, other objectives were included providing greater access and better health care for the poor, and increasing the number of physicians available to provide health care to underserved communities.

A study of medical students who graduated between July 1, 1974 and June 30, 1975 was conducted by Keith, Bell, Swanson and William (1985). They looked at statistics on specialty choices, where practices were located, patient characteristics, and specialty board certification choices. The minority graduates of these classes provided more health care to minority groups than the White graduates did. Black patients comprised 56 percent of the patient population of the Black graduates, while the White graduates provided care to 8 and 14 percent of Black patients. These authors felt that these findings represented historical trends. These studies also indicated that Black physicians provided health care to more diverse patient population than they had in the 1950's and 1960's. It is felt minority physicians were previously limited to setting up practices in minority communities because of sociological factors such as segregated neighborhoods and racism. More recently these sociological factors have had less of an impact. Therefore segregation is not the reason for Black physicians establishing their practices in minority neighborhoods. It appears to be related to physician choice.

In summary, the findings suggest by increasing minority medical school enrollment through affirmative action programs, medical schools also increased minority access to health care. Minority physicians served larger numbers of medicaid patients than did White physicians even after factoring in the racial mix of medicaid patients.

During the 1970's, the federal government developed methods of correcting the geographical maldistribution of physicians by designating certain geographical areas as health manpower shortage areas. The government has also created incentive programs to encourage new graduates to practice in these designated manpower shortage areas. However, statistics on the minority graduates from the 1975 class suggest the federal manpower program was more effective in affecting the practice locations of more minority physicians than of White physicians.

Pinn (1984) also addresses practice patterns of minority physicians. She states only a few studies have been done on specialty choices and practice decisions of minority physicians. The studies done tend to corroborate the belief a large proportion of the minority physicians return to their communities to practice and choose primary care specialties in greater percentages than White physicians. According to Pinn published research includes studies on Howard University medical graduates by Lloyd and Associates (1978); by Lloyd and Johnson (1982); a study published by Kaleda and Craig (1976); and a study of

Mexican-American physicians trained in California by Montague and Smeloff (1982).

During the past 10 years, 50 to 60 percent of all Black residents have done their residencies in internal medicine, pediatrics, general surgery, or obstetrics and gynecology. AAMC's 1978 study of U.S medical school graduates showed that Blacks and Mexican-Americans were overrepresented when determining which groups provide health care to minority communities.

The Johnson Report (1987) also addresses the 1985 study conducted by Keith, Bell, Swanson and Williams on specialty, practice locations, patient characteristics, and specialty board certification. This report concurs with previous findings that conclude minority physicians are more likely to provide health care to minorities and low income individuals than are White physicians. The report also states the minority enrichment program of the University of Medicine and Dentistry of New Jersey further supports this belief. They surveyed 44 graduates who had completed residency training and found three-fourths of the graduates practice in the minority communities of Newark, East Orange and Jersey City. The report refers to a statement made by the president of Meharry Medical College which states "Blacks have no obligation to serve the poor, but they identify with this group and share a unique history. It is experience not pressure, that gives them the orientation to serve the underserved" (Weisfield and Lewin, 1987, p. 5).

And Sullivan (1983) also agrees, indicating 60 percent of the Meharry and Howard Medical School graduates practice in medically underserved inner cities and rural areas. These authors state there is a need for Black physicians and historically Black medical schools to meet the health care needs of minorities and poverty stricken individuals.

Additionally, Tuckson (1984) addresses medically underserved Black communities. He asserts statistics substantiate the premise Blacks are underrepresented in the medical profession. He addresses the paucity by reiterating 11.7 percent of the total population is Black. There are 20.2 White physicians for every 10,000 Whites, in comparison to 4.2 Black physicians for every 10,000 Blacks. Recent projections by the Health Resources Administration indicate the underrepresentation of Black physicians will continue. By the year 2000 the number of Black physicians will still constitute less than one half that of White physicians per patient population.

b. **Health Status of Blacks**. Tuckson (1984) looks at the health status of Blacks. As early as the late 1960's, the federal government had developed incentives to encourage medical schools to train more physicians, based on the assumption increasing the number of physicians would also increase access to care and, therefore, lead to improved health status. These incentives were important to minorities. In 1963, 70 percent of the White population were seen by a physician during the year, while only 50 percent of minorities had this same access to health care.

In 1983, because of federal government incentives, 80 percent of both majority and minority groups were able to be seen by a physician during the year.

Tuckson indicates the actual results of greater access to health care on the health status of minorities has been difficult to measure, because the morbidity and mortality statistics are raw data and not always reflective of the impact the physician has on the health status of the individuals they serve. This becomes even more significant because the group under study are burdened by chronic diseases that require more public assessment. The epidemiological data indicated the mortality rate of non-Whites from childbirth, tuberculosis, pneumonia, and diabetes had declined significantly between 1969 and 1984. Many factors contributed to these positive findings. However, these diseases improve when the individual receives proper health care. With more scientific advances, greater positive results will be seen. This will be especially significant for minority individuals. Tuckson concludes by stating given the unacceptable health statistics of minorities (e.g. infant mortality rates, life expectancy, hypertension and its complications, inaccessible health care for minorities), it is hard to believe that we need fewer rather than more Black physicians. Greater funding to finance medical education is needed to reduce this problem. Halperin (1988) concurs by saying poverty, the underrepresentation of Black physicians, poor access of Blacks to White physicians and inadequate hospital services

all add to high morbidity and mortality rates which persist amongst Blacks.

Some literature reviewed on the health status of Blacks indicated that America is faced with the challenge of providing health care to twenty-five million Black Americans, many of whom live in medically underserved areas. Their health status is reflective of their economical, social, political and educational status as well as their access to Black medical providers. Sullivan (1983) in a study on the poor health status of Blacks in the U.S indicates the life expectancy of Black males is five years less than that of White males (65.3 versus 70.5 years). The infant mortality rate for Black Americans is twice as high as that for Whites (21.8 versus 11.4 deaths per 1000 live births). These figures are more disturbing when you review statistics on the rural areas and inner cities of the states, such as Georgia. Statistics on Georgia indicate the average life expectancy of Blacks is 8.4 years less than it is for Whites. In some rural counties of Georgia, the life expectancy of Black males is even more dramatic, 49.6 to 51.5 years, while the average life expectancy of White males in these same areas ranges from 59.5 to 69.5 years. In 1980, in 50 of Georgia's 159 counties, the infant mortality rate for Blacks was greater than 30 per 1000 live births, and in 16 counties the rate was even higher than 43 per 1000 live births. These statistics were repeated in many rural areas and inner cities throughout the United States.

> Black physicians and predominantly Black medical schools are needed to address the severe unmet health care needs of our poor and minority citizens, our nation and the medical profession face a philosophical and ethical dilemma; which is to either provide the finances and resources needed to implement the country's creed of equal opportunity, or abandon a large segment of our population to high infant mortality, a shortened life expectancy, debilitating poverty, a crushing burden of illness and disability, an increasing disillusionment, frustration, and a loss of hope (Sullivan, 1983, pp. 807,808).

To establish a need for increasing the number of Blacks entering medicine, the Advance Data Births (1987) was also reviewed. In 1987, 80.1 percent of White mothers in comparison to 59.9 percent of Black mothers received adequate prenatal care (adequate prenatal care is determined by the month the mother registered to receive prenatal care and the number of prenatal visits). This data reflects a decline of both White and Black mothers receiving prenatal care. There was a slight decline in the number of White mothers who received adequate prenatal care between 1981 and 1987, from 83.8 percent to 80.1 percent. But during this same time frame, from 1981 to 1987, there was a dramatic drop in the number of Black mothers receiving adequate prenatal care from 72.3 percent to 59.9 percent.

The mortality rate for White infants dropped by 0.28 percent, from 9.2 deaths per 1000 live births in 1981 to 6.6 deaths per 1000 live births in 1987. Conversely, the mortality rate for Black infants only dropped by 0.03 percent from 16 deaths per 1000 live births in 1981 to 15.5 deaths per live births in 1987. The conclusion drawn from these statistics was the mortality rate for Black infants

was 135.0 percent higher than the mortality rate for White infants.

c. **Role Models/Mentors**. The lack of role models and mentors is another significant factor creating a need for more Blacks in medicine. The Johnson Report (1987) states while studies confirm the need for role models and mentors, only one in eight Black professionals had access to a mentor during their graduate or professional education. This report cites the paucity of minority faculty (see Appendix F) as creating this deficit. From the 1960's to the 1970's, the number of full-time minority medical school faculty members remained unaltered. Underrepresented minorities represented less than 3 percent of the 47,701 United States medical school faculty in 1981. Thirty-six percent of these minorities were faculty members at minority schools.

Blackwell (1981), also addresses the significance of having Black role models. The majority of Black faculty are available to teach in the clinical programs rather than in the basic science program of medical schools. This underrepresentation of Black faculty in the basic sciences is a consequence of the paucity of Black Americans holding doctoral degrees in these subjects. Many medical students don't see any Black faculty until they reach the level of clinical training.

A number of institutions saw the need for more Black faculty to serve as role models in various academic and non-academic functions, but few were creative in finding solutions to the problem. In concluding Blackwell suggests

access to Black faculty plays a role in promoting successful recruitment and increasing enrollment and graduation of Black students.

Pinn (1984) expresses concern regarding minorities being directed towards primary care areas rather than towards academic medicine. She believes more Black faculty are needed in medical schools. They could serve as role models in academic medicine.

Jonas and Etzel, 1988; and Pinn, 1984; both concur the lack of Black professional role models which Black medical students and young people can emulate may restrict their career choices, investigation or consideration of other areas of medicine or inhibit their ability to see themselves as future professionals.

d. **Benefit to Society**. Many researchers saw the increase in the number of Blacks in the medical profession as a benefit to the Black race. But little attention was placed on the benefit this increase represented to society as a whole. Bazzoli, Adams and Thram (1986) address the benefit. They indicate that society can benefit from providing greater educational opportunities to minorities and the poor in two significant ways. It will allow all individuals regardless of race, ethnicity or family income to achieve their fullest potential. And secondly, the increase in the number of minorities entering medicine will help alleviate the maldistribution of physicians in health manpower shortage areas.

Sullivan (1983) believes education has been one of the keys to upward mobility in the United States and can still create this same opportunity for Blacks and other minorities today. Obtaining a medical education can play a significant role in self fulfillment for minorities.

> Although other factors affect the health status of Blacks, it is necessary to have an adequate number of Black physicians who could understand and respect the culture, history, and social status of their Black patients; as well as Black physicians who live in the community they serve and contribute to solving the problems of the community (Sullivan, 1983, p. 808).

C. Conclusion

Historically Blacks have been excluded from medical education for a variety of reasons as outlined in this review of the literature. Some of the reasons cited were inequities in the educational system, the "separate but equal" laws, Jim Crow doctrine, racism and the many barriers addressed such as economic deprivation, lack of commitment from medical schools and exclusionary admission practices. The most damaging reasons cited are the Flexner Report of 1910 and the Supreme Court decision of 1896 declaring the "separate but equal" doctrine in Plessy vs. Ferguson. As a result of the Flexner Report and the "separate but equal" doctrine, all but two of the existing Black medical schools during that period were forced to close, and Blacks were restricted to Howard University and Meharry Medical College if they desired a medical education for many years. This exclusion has led to an underrepresentation of Blacks in medical education and in the medical profession. The

repercussions of this underrepresentation of Blacks in medicine has resulted in medically underserved Black communities, poor health status amongst Blacks, a lack of medical providers, medical role models, researchers and educators.

Inadequate health care has contributed to the high mortality and morbidity rates amongst Blacks. The infant mortality rate amongst Black infants remains nearly twice that of Whites. This situation continues in spite of literature showing that access to quality care and early preventative care can reduce the mortality and morbidity rates of infants and adults.

Black physicians are needed to address the severe unmet health care needs of our poor and minority citizens. The literature also indicates that it is important to realize that this lack of equitable representation is detrimental not only to those underrepresented minorities, but also to the welfare of this country as a whole.

It is important to evaluate the process from the applicant to the professor, when determining solutions to the underrepresentation of Blacks in medical education. It is not only important to increase the number of Blacks entering medical education, but it is also important to create access to all areas of medicine. The criteria used to determine acceptability for medical school admission must be re-evaluated. There must be significant criteria to qualify future Black medical school applicants other than the Medical College Admissions Test (MCAT) scores which puts

many Blacks at a disadvantage because of their poor academic preparation.

A systematic approach must be developed and implemented to bring about true equity in medical education and address the disadvantage created by decades of exclusion, deprivation, segregation and discrimination at all levels of the education system.

> For talented minority students whose vocation is the healing arts, the opportunities to enter these fields are smaller than they were a decade ago. In part, this is because the lessons of 20 years of efforts to enrich the educational experience of disadvantaged groups are not being fully applied. We now know enough about programs to attract and assist talented minority students toward health careers that would enable the design and implementation of programs with a high likelihood of success. If the gap between the potential and the actual participation of minorities in medicine is not bridged, it will be because as a nation we have held the blueprint, yet not constructed the span (Weisfield and Lewin, 1987, p. 22).

CHAPTER III

METHODOLOGY

A. Rationale for this Study

The major rationale of this study was to gain an understanding of the factors leading to successful completion of medical education from well informed individuals or individuals experienced in the medical school process, in the Massachusetts area. A random selection of participants was not conducted because of limited time constraints and a somewhat sensitive subject matter being used for the interviews.

The sample was confined to ten individuals who may or may not be representative or reflective of the Black medical student or Black physician population. However, this investigator does believe that the information obtained from this selected case study in conjunction with the extensive literature search will provide valid and useful information.

Because of the many hours third and fourth year medical students are required to spend in their clinical rotations and the busy schedule of many physicians, as well as the time required to conduct in-depth interviews, a case study approach was used. The in-depth interview process was utilized to obtain the information. A basic approach was to glean insights from the experiences of individuals who were currently in medical school or individuals who had completed medical education (Cohen, 1985).

The purpose of these interviews was to obtain firsthand data on factors contributing to the success of Blacks in

medical school from individuals who had already achieved success. This study capitalized on the experience and knowledge of the participants regarding their own understandings about criteria, qualities, characteristics, and factors necessary to achieve success in medical school.

In order to determine which factors contribute to the success of Blacks in medical school and to find out whether the traditional criteria used for admission to medical schools is the best predictor of success for Black applicants, this investigator employed the interview technique. The reasons for using the interview technique were:

1. The direct interview allowed this investigator to establish a rapport with the respondent and develop the interest of the respondent. The interview elicited more information, and provided candid responses (a Black person discussing the matter directly, face to face, with another Black person).
2. The interview had to be very lengthy to ascertain the type of information desired to conduct this study properly; however, a respondent would have been less likely to respond to a lengthy questionnaire.
3. The interview was a more flexible tool and allowed the investigator to discuss or clarify any questions the respondent had. It allowed the investigator to rephrase the questions to elicit the necessary information.

4. The interview allowed the investigator to probe further when necessary.
5. The interview encouraged the participant to respond to questions that evoked considerable thought or that seemed to be personal in nature, whereas in responding to a questionnaire he or she would be more likely to disregard the questions.
6. The interview allowed this investigator to bring many years of clinical skills to the interview process which helped to elicit information significant to this study.

B. Objectives of the Study

This study will contribute to the existing body of knowledge on Blacks in medical education and meet the following objectives. The first objective is to provide an overview of successful Black medical students and Black medical school graduates/physicians. Secondly, it will describe a composite of Black role models for Black youth interested in pursuing a medical education. The third objective of this study is to make the study available to medical school admission committees so that they will be made aware of alternative criteria or characteristics to utilize when evaluating Black medical school applicants. This investigator believes that if non-traditional criteria are used by medical school admission committees, it could potentially increase the Black medical school applicant pool.

C. Pilot Study

To prepare for this study a pilot study was conducted to determine the feasibility and effectiveness of the method. Interview questions were designed to standardize the interview process. Two Black females in their third and fourth year of medical school were selected based on their willingness to participate in the study. Both students were enrolled at Boston University School of Medicine. The interview was conducted at the home of one of the participants. Each participant was interviewed separately by this investigator. The participant and investigator were alone in the room at the time of the interview. The interview was tape-recorded with approval from the participants. Each participant was given a copy of the interview questions just prior to the interview.

Both participants were interviewed for approximately one to one and one half hours. The information gleaned from these interviews provided the investigator with information significant to understanding factors contributing to success in medical school. The investigator had an opportunity to assess the appropriateness of the data collection instrument and determined that the interview questions needed further refinement. As a result of this pilot study, this investigator developed a more formal procedure for the interview process and more comprehensive interview questions were prepared (Ary, Jacobs and Razavieh, 1985). It is the belief of this investigator that the changes made in this

study provided a better understanding of the factors that contribute to the success of Blacks in medical school.

D. Criteria for Selecting Participants/Respondents

This study focused on individuals of African decent who had first-hand knowledge of medical education based on their experience in achieving success in the medical education process.

All participants were graduates of traditionally White medical schools; one participant spent the first and second year of medical school at a traditional Black medical school and completed his medical education at a traditional White medical school. The participants were selected through a process of referrals, as well as, on the basis of their willingness to participate.

In the complete study, this investigator used the following criteria for choosing people to be interviewed. The individuals selected were limited to Massachusetts for ease of completing the study within a timely manner, to assure access to the participants without incurring excessive expense, and, because the investigator has worked in health care for many years in the Massachusetts area and, consequently, has developed a network of health professionals to call for assistance in this study.

This investigator did not see geographical factors as being a significant variable in light of the characteristics believed to be essential for Blacks to attain success in medical school and only interviewed medical students and physicians in Massachusetts.

This investigator designated two categories of individuals to interview in this study. The following categories were selected: (1) individuals who have graduated from medical school and are currently licensed to practice medicine, surgery (either general surgery or a specialty), psychiatry, pediatrics, obstetrics or gynecology, etc.; and, (2) medical students in the third or fourth year of medical school. It was presumed that the attrition rate for upper class medical students was lower than the first years of medical school. However, it was important to include medical students because they could provide another insightful perspective.

The intent of this investigator was to interview ten Black individuals, six from the first category of participants and four from the second category of participants. Gender was not a factor in the selection process; however, it was hoped that a comparative number of male and female individuals would participate in this study. The physicians were selected based on their availability and willingness to participate in this study. The students were selected based on referrals from administrators of medical schools Minority Affairs Offices, referrals from physicians or referrals from other medical students. One exception was one medical student, known to the investigator from another project, agreed to participate prior to the initiation of this study.

The breakdown of the participants was four medical students, two residents, and four practicing physicians.

E. Procedures

A separate list of interview questions was developed to use during interviews with medical students and physicians. The purpose of developing the list of interview questions prior to the interview was to assure that each participant was asked a set of standard questions during the interview process. The list of interview questions did not prohibit this investigator from clarifying information or asking additional questions if the need arose while interviewing a specific participant.

The investigator contacted the potential applicants by telephone, introduced herself and informed the participant of the referring individual. The purpose of the contact and the purpose of the study was explained. The investigator outlined the interview process, how the data were to be collected and used, and the time needed to conduct the interview, and reassured complete confidentiality of identifying information. After the potential participant agreed to be interviewed, the investigator established a time and place to conduct the interviews.

The investigator requested permission to audio-tape the interview. This process limited the type and number of distractions and allowed the interviewer to focus on the participant - "the tape recorder allows the interviewer to concentrate on what the participant is saying and on the interviewing process rather than on capturing in writing what is said" (Seidman, 1985, p. 21).

A cover letter was developed to send out to each participant after he/she had agreed to participate in the study. The letter thanked the participant for agreeing to participate, briefly explained the purpose of the study and confirmed the date agreed upon during the telephone contact with the participant (see Appendix G). A copy of the questions to be asked at the time of interview was also sent to participants (see Appendices I, J and K).

The investigator confirmed the data and place of the interview in writing. The interviews were conducted at a place designated by the participants such as, their home, or conference area at medical school library or hospital or their office.

A consent form was developed (see Appendix H). The purpose of the consent form was (1) to obtain written permission from each participant, to interview them, (2) to inform each participant about their rights and responsibilities, (3) to properly inform each participant about the study being conducted, its purposes and potential usages, (4) to inform each participant that the interview would be audio-taped, and (5) to inform each participant that they would not be identified by name in the data presented in the study. Only the information given during the interviews and pseudonyms or initials would be presented.

The investigator attempted to be prompt for each interview, introductions were made, and a copy of the interview questions were available and given to the

participant if he/she misplaced their copy of the interview questions mailed. The consent forms were reviewed and signed prior to conducting the interviews.

The interviews were conducted by this investigator/interviewer. The primary purpose of the interviewer was to direct the interview and to be an active listener. The interviews lasted approximately one to two hours.

Following the interview, the option was obtained for a follow-up interview or telephone call to obtain additional information or clarification of any information if necessary (Leedy, 1985).

Participants will be sent a copy of the results of the study if requested at the time of the interview.

F. Instrumentation

The development of the interview questions for medical students and physicians was based on the results of the pilot study. This investigator felt that it would be necessary to refine and develop a more comprehensive instrument if the study was to provide a better understanding of the factors contributing to the success of Blacks in medical school. Therefore, additional interview questions were designed for each of the two categories of individuals being interviewed. The interview questions were developed to standardize the in-depth interview process and to ensure that the participants in similar categories at least responded to the same questions. However, the interview questions did not prohibit the investigator from

either clarifying responses or asking additional questions if the need or occasion arose.

The interview questions designed for medical school students were adapted from Lesserman (1981) and consisted of 56 questions, covering six broad categories: (1) Demographic factors such as age, sex, family background, academic preparation, (2) financial factors such as family income, method of financing medical school education and indebtedness of medical education, (3) factors influencing the decision to pursue medical training, (4) obstacles encountered while pursuing medical education, (5) factors contributing to success in medical school, this category included questions or characteristics and criteria the participants saw as necessary to succeed in medical school, (6) factors influencing the participants' chosen areas of specialization in medical school, included in this section were questions regarding perceptions of the role of the Black physician (see Appendix I).

The interview questions designed for physicians were also adapted from Lesserman (1981) and consisted of 60 questions. These questions covered the same six categories listed for medical students, but additionally included questions on the role of the Black physician, their responsibility in bringing equity into the medical profession, practice location and whether their medical school indebtedness influenced their practice location (see Appendix J). Additional questions were asked of one physician who also served as the Dean of the Minority

Affairs Office of a medical school. This investigator made the decision to ask additional questions of this participant because of the additional experience and knowledge this individual could bring to the study being conducted (see Appendix K).

G. Data Collection/Treatment

The collection of data for this study was gathered from two sources. During the interview sessions notes were taken on the interview question forms. The investigator was very careful not to allow the notes taken to become a distraction during the interview process. It was very important that the participants understood that the information they provided during the interview session was very important and critical to the study. However, the notes did provide one source of data collection.

The audio-tapes utilized during the interviews were the major tool used to collect and assimilate the data provided during the interview. The audio-tapes were reviewed by the investigator and additional data were collected. Three of the ten audio-tapes from the interview sessions were fully transcribed. One was fully transcribed by the investigator and the two remaining audio-tapes were transcribed by a typist (confidentiality was a prime objective of the typist as well as of the investigator). The seven audio-tapes that were partially transcribed were summarized by the typist. However, the investigator reviewed the tapes completely.

Pertinent information was retrieved after reviewing the audio-tapes, reviewing the fully transcribed tapes and after

reviewing the summaries of the remaining seven audio-tapes. The material extrapolated from the aforementioned methods was studied, then grouped or categorized to determine which method of reporting of the findings would be used.

After careful study of the material extrapolated from the interviews, this investigator decided to present the findings in four ways: First, as case presentations taken from an in depth interview of a physician, resident, and a medical student. The case studies were presented as verbatim transcripts, leaving out some of the demographic information or specific data that would be better presented in table format; and second, as profiles of the medical students and physicians interviewed. Both the case presentations and the profiles allowed the study to meet the objective of describing role models for Black youth interested in pursuing a medical education. The profiles provided a basic description of the participants using pseudonyms to preserve their identity. A great deal of information was omitted from both the profiles and from the case presentations because much of the information revealed during the interviews was not relevant to the study, or it was repetitious, unclear or unconnected. Deletions were also made for the purpose of fluidity, also deletions of conjunctions or articles were done which in no way altered the meaning of the material provided. In some instances the sequence of material was changed but again the meaning of the material prosented was not altered. Additionally, careful measures were taken to protect the identities of

participants in both the case presentations and profiles of candidates. Pseudonyms were used for all participants. Thirdly, tables and figures were developed based on the data collected to provide the reader with a clear view of data which this investigator felt was important to the study such as demographic factors, financial factors and indebtedness, academic preparation, and family background. A figure was also developed to provide a list of criteria or characteristics that the participants felt were essential for Blacks to achieve success in medical school. Finally, interview captions from the interviews were interlinked together with significant themes that emerged after studying the data. Information was abstracted from the audio-tapes and presented in the form of interview captions, and many direct quotes pertinent to the study were presented.

CHAPTER IV

PRESENTATION OF THE STUDY

The primary purpose of this section is to give an overview of the medical school experience of the ten individuals who participated in this study.

To achieve this purpose, the study was presented in three different formats: First as case presentations. The case presentations provided a summary of the experiences of three study participants. These three participants were selected because they gave detailed information which provided insight into their medical school experience. The case presentations provided a clear perspective of the experience of three Blacks pursuing medicine and the kind of characteristics necessary to succeed in medical school. The participants were satisfied with the decision to pursue medicine in spite of the sacrifices, frustrations, delays in gratification that their career goals entailed. Secondly, the study was presented in the form of seven profiles of individuals who have successfully completed medical school or who were nearing completion of medical school. Although the profiles were not as comprehensive or in depth as the case presentations, the profiles did include an abbreviated description of critical components necessary for successful completion of medical school. Finally, the material was consolidated into interview captions based on the subject areas covered in the interviews. The information that was not otherwise revealed through the two previous formats was

included in this section. This information was not rated or weighed according to content. It was simply listed or stated. This section can also be useful to individuals or youth interested in reviewing the medical school experience of Blacks.

It is hoped that the following profiles and case studies presented will potentially provide information and describe role models for youth interested in medical education. The profiles and case studies may provide medical school admissions committees with additional characteristics and criteria to utilize when identifying potential Black medical school candidates.

A. Case Presentations

The following case presentations include a summary of the medical school experiences of three of the study participants. The first two case presentations include two physicians. One of the physicians is still in post-graduate study as a resident. Both of these individuals have successfully completed their medical education. The third case presentation is a medical student in the fourth year of medical school. He is nearing completion of his medical school training.

1. Case Presentation: Dr. David Valentine

Dr. David Valentine is a 37 year old Black male who is currently an administrator in a health system, and an Assistant Dean of Minority Affairs at a medical school. David obtained his medical degree from a medical school outside of Massachusetts.

David grew up in a large urban Black community with his parents and four siblings. Neither of David's parents attended college. David's father was a stationary engineer, and his mother did domestic work. David is married, his wife is a college graduate and he has a child.

David attended a predominantly White high school. He was in the academic track. David took algebra, geometry, trigonometry, calculus, biology, physics, chemistry and earth sciences. David feels that his high school education adequately prepared him for college. David received some assistance from his guidance counselor during high school, but no assistance in getting into college. David attended a very competitive private undergraduate institute where he majored in biomedical science. He completed all of his premedical school requirements during his undergraduate studies. David stated:

> I took three physics courses. Two of the physics courses were pass/fail, one was graded which I got a B in. I took seven chemistry classes, and of the seven two were pass/fail and the others were grades and I got A's and B's. I took seven biology courses and two were pass/fail and the rest were A's and B's.

David attained his bachelors degree in life science with a 4.3 out of a 5.0 grade point average grading system.

a. <u>Factors Influencing the Decision to Become a Physician</u>. David had no family members in the medical profession to serve as role models, but when asked if there were any physicians other than family who influenced his decision to become a physician he responded:

> Yes, my family practitioner was very nice. He always stressed getting a good education and trying to be the best that you can be. He was a very popular role model. He was a White physician working in an all Black neighborhood.

David was nineteen when he decided to become a physician. He responded to the question on factors influencing his decision to become a physician.

> I was always interested in math and science and I enjoyed the biology courses. I did some volunteer work at a hospital and I thought I'd like being a doctor.

b. <u>Admission and Obstacles in Medical School</u>. David could not remember the scores that he received on his MCAT examinations, but he indicated that it was above average. He feels that his MCAT scores were a reflection of his academic ability.

> I did well in biology, chemistry and in the quantitative physics section. So, I know that they accurately reflected how well I did.

David took his MCAT's only once. He did not take an MCAT preparatory course. David was accepted to one of the Ivy League medical schools on his first pursuit and he sees his major obstacle during medical school as:

> Well, I think the major obstacle was the financial burden from the standpoint that it was expensive to interview at the various medical schools. That was one of the major obstacles. I applied to medical school during the time when there was a big push to increase the number of minority students in medical school. I was a good candidate, so I was pursued. I didn't see any obstacles at that time other than the financial barrier. I don't remember anyone making any racial statements that were blatant.

When asked whether he saw the obstacles for Black males and females as being the same or different David replied:

> Yes, I see differences. I think that Black females are better, I won't say tolerated, but don't face the same obstacles as Black males. Black females are perceived to be easily adaptable and will fit in and won't rock the boat, while Black males are seen as being abrasive or challenging, or even hostile.

Black medical students encounter myths regarding their acceptance to medical school.

> I think the perception of being Black and being in medicine is, Black students only got into medical school because of affirmative action and they are not as good as anyone else.

c. **Financial Cost of Medical School**. The total cost of David's medical education was approximately $45,000, and he faced a $30,000 debt when he completed medical school. David financed his medical school education with loans, scholarships and work-study.

While work-study was another method of defraying the cost of medical school, it took critical time away from the numerous study hours required in medical school.

> Well, it took time away. I usually worked either 10 to 15 hours a week. So, that was 10 to 15 hours less study time.

d. **Medical School Support Systems**. Support systems are an important aspect in the admission, retention and graduation of Black's from medical school. David's response regarding support systems was:

> Well, there was an Office of Minority Affairs available if you needed it.

David felt adequate support systems were available during his medical school training.

> I would say the support systems that were there, they were helpful. I didn't need them, but they were there. I always felt that I could go into

> the Office of Minority Affairs and talk to someone. If I had a problem there was someone that I could talk to that would help me.

David found the medical school faculty to be supportive of him and fair in their grading most of the time. He had no Black faculty teaching the science curriculum, but there were two Black faculty teaching during his clinical training. They taught in his psychiatry and internal medicine rotations.

David did not find them helpful to him, and they did not serve as role models or mentors to him. But, he does see himself as serving as a role model and mentor for Black youth and/or medical students.

Most parents also play an important role in the success of Blacks in medical school.

> Well, they just were there for support. If I had an exam and was going out of my mind and I thought I was going to fail, my parents were always there to give me encouragement. So, they were a good support base.

e. <u>Factors Contributing to Success in Medical School</u>.

David saw the following factors as contributing to his success in medical school.

> One, I had a good knowledge base. So, when I came into medical school I had a good science foundation. Too, there was a lot of peer support, which means that there were fellow medical students who would work with one another in study groups by sharing exams or tutoring each other, which I found very helpful.

In addition to having a strong background science and mathematics, David stated the following attributes were also necessary for success in medical school.

- You need to have compassion.

- You have to have empathy.
- You have to be determined.
- You need to be willing to work long and hard hours.
- You need to take criticism.

David indicated the aforementioned attributes will help a student succeed in the 3rd and 4th years, during the clinical years, but they will not help in the basic science years. If students don't have the knowledge in basic science it doesn't matter how hard they work, or how caring they are, they are not going to pass their exams.

Expanding on the previous topic, David said that many Blacks are academically deprived. They are tracked through school systems, and they don't get a strong foundation in science and mathematics during their primary and secondary education. It is important to determine whether college preparation is adequate to prepare them for medical school without the basic foundation in their earlier educational years.

> It makes it hard for them to perform in college, if they don't have the strong science base and math base prior to entering college, but there are ways to do it in college. Instead of students immersing themselves in core courses or the typical pre-med course which is very cut throat and very competitive, it may be better for them to take a preparatory course, before taking the pre-med course. This will allow the student to build on a foundation. A lot of times what happens is students take pre-med courses, they go right into the course because it's a pre-med course and they want to get it over with. The student doesn't do very well because of an inadequate science base. The student is running behind because although he/she passed the course it was passed with a "C" or a "D" and that means that your knowledge base when you go to medical school is deficient. It makes it hard to take a course where a lot of times they're basing the course on the fact that you took a pre-med course which is supposed to

build the foundation so they can give you more information.

David feels the preparatory courses or programs are adequate to make up for the academic deficits that many Blacks have, because of inadequate preparation during their primary and secondary education.

> Yes, if they take these programs prior to entering college. But students who enter college inadequately prepared are then stigmatized by being put into remedial courses. It's very hard. So, is there a way of doing it? There are some schools that have programs that start in the summer before the school semester starts. They have an introduction to what it's going to be like in college. They test the students to see what their knowledge base is and then give them counseling on the courses they will need prior to taking the heavier courses. Frequently, college students don't get proper direction. They're supposed to have an advisor, but the advisor may have fifty other students, therefore, they will not have time to properly advise each student; as a result students are placed in courses they are not prepared to pass. Students placed in this type of situation are very likely to fail and receive a blow to their self-esteem. It's very hard in medical school. I can tell you from looking at the students that we bend over backwards to accept because we know that they have a potential, but they haven't been able to demonstrate it in school. Part of the problem was they came from a disadvantaged background and then got into medical school.

David believes students who do poorly on the MCAT's will also have trouble passing the basic sciences.

f. <u>The Need for Blacks in Medicine</u>. Blacks are underrepresented in medical education for many reasons, one of which is their underrepresentation in higher education.

> Well, go from things that are very obvious and things that are subjective. One is that there aren't many Black students, especially Black males going to college. And, out of the ones going to college, not many are graduating. So the pipeline is not there. And, racism is still there. There

are some medical schools that go out of their way to recruit minorities or Blacks into medicine and there are some schools that don't go and make any attempt to track Blacks in medicine. And, again going back to the quote word of "quality" is that their MCAT scores and their GPA's are lower than your average majority student.

Blacks do make valuable contributions to the field of medicine.

Well, I really feel that they have a role and they should be there. That there is again, disproportionate numbers of Black physicians who practice in Black communities, who see more patients who have medicaid, or have no insurance at all. So, there clearly is a need for Black physicians who are culturally sensitive and linguistically sensitive to the community.

There is a need for Black physicians to work in academic research as well as in primary care.

Well, I think that Blacks in medicine should choose the field that they feel is most appropriate for them. There is a need for primary care, but there is a need for Black cardio-thoracic surgeons. There is a need for Black academic physicians doing research on AIDS in the Black community, or on AIDS in the White community. So, there is a need for a Black physician in any field. I think it should be the student making the decision about what they want to do with their career. I agree that some medical faculty steer Black students into primary care, because that's where they see the need. But it's also because the subspecialties are so competitive, and in the subspecialties there is no such thing as affirmative action. So, there are a lot of subspecialties that there is a dearth of Black physicians in, such as dermatology, radiology, where even if you apply your chances of getting in are very small. So, I clearly feel there's a need for Blacks to go into all phases of the medical field. My preference is to go into primary care because I know that if we're going to prevent disease, we need more primary care doctors out there talking about health promotion and disease prevention. But, I would encourage Blacks to go into any field that they're interested in.

David practiced in primary care prior to becoming a health systems administrator and medical educator. His choice of practice was not dictated by his medical school indebtedness.

g. **Attainable Rewards**. Although Black medical students may experience hardships, racism and rigorous study requirements, there are also many rewards once medical school is completed. These rewards include personal, professional and monetary benefits.

As a student, David envisioned himself making over $50,000. He has more than realized his goal.

> Physicians' incomes vary, you can go into a field, such as orthopedic surgery or neurosurgery and earn around $250,000.

h. **Perspective as a Medical Educator**. David is an Assistant Dean and faculty member at a medical school. As a faculty member he feels he has to give support to Black medical students.

> Well, I really feel that I need to be a role model because a lot of students are very naive. They feel that once they enter medical school that the doors are going to open and that people are going to see them as a doctor, and all sorts of privileges are going to be there. I have to bring them back to reality and tell them that they're still Black and they're still going to have to keep proving everyday that they're good. Sometimes they have to be better in order to survive. So, I really think that it's a responsibility to be there to educate them, to provide some guidance for their future.

David serves on the medical school admissions committee. He has decision-making authority on that committee. He has input on all of the minority students

admitted to the medical school. David teaches in the basic science curriculum and the physical diagnosis course.

Black faculty members and mentors have a significant role in the retention and graduation of Black medical students.

> I can understand some of the issues that come up in medical school that could be a barrier to their graduation. I understand the concerns about not doing well in medical school and the pressures that one has as a medical student in dealing with faculty, dealing with patients, dealing with adversities. So, I can understand some of the things that they're going through. Where they feel that it may be a race related issue it may just be that they're not interacting well with their attending on the wards. I can provide them with some insight on how to deal with problems when they come up because I have seen them in the past.

The academic preparation of Black medical students varies.

> It varies in that there are some students who are very well prepared and then there are some that are moderately prepared. I would say that there are none that are poorly prepared. I would say that it's probably about 50/50 of being very well prepared, 50/50 of being moderately prepared.

Factors contributing to the success of Black medical school students are

- Motivation.
- Doing well on the pre-med science courses in college.
- Having good MCAT scores.

David does not feel that Black students must have a 4.0 GPA and 13-15 on their MCAT's to succeed in medical school.

> No, I would say that if any student, even White students, who got a C^{+} average and has MCAT scores that are greater than I would say 40 could successfully get through medical school.

You have to understand that the brighter the student, the easier it is to teach them and the better the knowledge base that they will have. If you get the brighter students going to medical school, you'll have the brightest doctors.

The non-traditional criteria David recommends to medical school admissions committees is:

- Letters of recommendations.
- Community service, which would include all of the volunteer work that they have been doing.
- Social economic background.
- Their major work in college.
- That they were a non-traditional major, they don't just major in biology or chemistry, that they might have taken something like political science. Something to show that they were more interested in the world, not just in medicine.
- That they've done some volunteer work in a hospital.

Community service or volunteer work in a hospital qualify as criteria because:

> It gives the admission committee a sense of whether or not the applicant really knows what being a doctor entails. It's one thing for an applicant to say I want to be a doctor and not really know what a doctor does. Their perception of a doctor is based on what they've seen on television, and this is not what the real world is. By going and doing hospital volunteer work applicants get a sense of how doctors deal with patients. And to see whether or not the blood and gut sort of things ... the not so glamorous part of being a physician is what you want to do. Community service is a way of seeing how well applicants can relate to patients. Because if they don't do any community service and haven't been out there talking to people and trying to be helpful, how are they going to be able to sit down and talk to a patient when they're sick and not feeling well. This experience will give me a sense of what kind of a social person the applicant is.

There has been a decline in Black medical student enrollment. The high cost of medical education has contributed to this decline.

The cost of medical education is going up. The amount of scholarship money is going down. Blacks on average have much higher debt burdens from undergraduate colleges then Whites, therefore are reluctant to take on more loans or debt in medical school. So, it does play a factor. However, I do not see medicine as becoming an elitist profession again.

No, I don't see that happening. I see, in fact, it may be going the other way, because the people who are most affluent see that they can make just as much money and have less headache by going into other fields, like business or going into computer sciences. So, I don't think that the cost of medical education is going to dissuade someone who wants to be a doctor, except that its going to make it harder for Blacks to go to medical school because of the debt burden. They may be forced to go to private schools while in the past they might have gone to state schools, because state schools are much cheaper and because medical school education seems a little higher, state schools are now becoming very attractive to everyone. And so the number of slots for Black students at state schools is going down. So a lot of students are left with only being able to go to private schools which are very expensive. Occasionally, there are some Black students who are accepted into medical school who don't go to medical school because it's too expensive.

David does not see a strengthening or weakening of medical school commitment to Black enrollment, retention and graduation from medical schools.

I don't think there's been a change. I think that the commitment is still there around enrollment, retention and graduation. I think that there needs to be a strengthening of this. I think that we're still living with the Association of American Medical College's original goal of reaching 12% enrollment for Blacks. No one has come close to doing that, and there's no strategies about increasing the number of students admitted. I think that most schools are committed once the student has been enrolled, to doing everything they can to try and help them graduate.

2. Case Presentation: Dr. Muriel Simms

Dr. Muriel Simms is a 29 year old Black female who is a first year resident in primary care (internal medicine) at a hospital in Boston. Muriel obtained her medical degree from a medical school outside of Massachusetts.

Muriel grew up in a large urban racially mixed community with her parents and two siblings. Both of Muriel's parents were college graduates. Muriel's father was a corporate lawyer and her mother was a systems analyst.

Muriel attended a predominantly White high school which was a specialized public high school for college preparatory in science and mathematics. Her major course of study was science and mathematics. Muriel took earth science, physics, biochemistry, chemistry and algebra, geometry, trigonometry and calculus. Muriel did feel that her high school education prepared her for college.

Muriel's response to the guidance counseling she received in high school was:

> I had an official guidance counselor, but no one really found him to be very helpful. To be honest with you he would call the Black students into his office and encourage them to apply to places like Morgan State. We always ignored him and we basically did our own thing. I did not receive any assistance in getting into college.

Muriel attended a private undergraduate university and majored in biology and psychology. She completed all of her premedical school requirements during her undergraduate studies. She received a B in biology, physics B/C range and chemistry B/C range. The university did not use grade point averages for a grading system.

a. **Factors Influencing the Decision to Become a Physician**. Muriel had an uncle who was a physician, but he did not influence her decision to enter the medical profession. She decided to become a physician while in college around 18 or 19 years old.

Muriel initially considered a career as an engineer.

> I wanted to be an engineer. The summer after my junior year of high school, I attended a minority students engineering program. I went for the whole summer and it was really good. We had chemistry and calculus. When I went back to high school I blew away calculus. I got 100 on every test. It was really amazing. The reason I couldn't deal with engineering was I didn't like mechanical drafting. You have to draw what you are going to invent and I hated that, so I didn't want to be an engineer anymore.

Muriel's enjoyment of people helped her to decide on a career in medicine.

> Well, I didn't like engineering and I wanted to work somewhere in a science and math type field. I like being around people, so I decided to check on medicine after my freshman year. The city I lived in had a special program that allowed you to work in any department in the city you wanted to. You could work in public administration, in the government, anything that you were interested in. I chose to work in a hospital setting because I thought I wanted to be a doctor. I worked at a hospital that summer. The only place they could put me was in the psychiatry department. So, I figured, I don't care, I'm in the door, I'll just meet people. Once they got to know me they said I could follow a pediatric resident around. I got to know different people. And then after a while I was scrubbing in the operating room, I was making pediatric rounds, I did some emergency room work. I just kind of watched and it was good because there were medical students there who talked to me about medicine. They taught mini-anatomy classes. The administrators talked about administrative and public health issues. I said this is something that I can do. I mean people work hard, but I think I can do it. The hospital was predominantly Black and it provided a professional Black environment.

b. Admission and Obstacles in Medical School. Muriel could not remember her MCAT scores but took the MCAT's twice. She also took the MCAT preparatory course. Her scores ranged around 6,7 and one 8, but she was upset because she received a 5 on the reading section. She was concerned that the reading score would keep her out of medical school. Muriel's premedical school advisor informed Muriel that the average MCAT score for minorities was between 4 and 5, and stated Muriel went over the minority limits. She felt Muriel shouldn't be upset. Muriel was accepted to medical school on her first pursuit.

Muriel encountered many difficult obstacles during medical school.

> I didn't really have any educational problems until I went to medical school. There were a lot of things going on with me that I didn't realize had an impact until now. For one thing during that time my parents divorced, they were fighting about money and so I was basically on my own financially. I had an apartment, I had a hard time paying rent. The medical school had promised me scholarship and loan money, which I had applied for six months before entering medical school. But, because the student loan office was basically unorganized I never saw any of the money until January or February. I had started school at the end of August.
>
> I was getting threats, I'm going to shut off your electricity, I'm going to evict you. The first two or three months of running to the school, running to the financial aid office, running to the Dean, and saying look, I really need some emergency loans. They were acting like it was their own money. I stated, I have no cash flow, I can't eat, I can't study because I'm so anxious about all of this. Can you please help me out? So, eventually after a big fight they loaned me a thousand dollars a month, but after a while they were so tight about giving me the emergency loans, sometimes it would be $200.00, I paid my rent then it was gone. I was always living on the edge.

Because of that I studied, but looking back not as hard as I should have. Well, I actually failed pharmacology and the controversial thing about failing pharmacology was that we took the make-up exam. However, the professor who had given the exam had basically changed some answers around. So, there were two answer sheets and no one wanted to admit that he messed up the exam, so they failed some people again, I was one of them. And, then there were two courses that I passed, but they had this grade called the barely-passed. They had a committee called the Students Standards Committee. All of the medical school Deans and plus different attendings who worked around the hospital had a meeting. They decided because I had failed the pharmacology course and I had barely passed two courses, that I should take the whole year over. I said I don't know why I have to do this. But, their whole attitude was that although minority students were accepted that we just need more help. We have to take things two or three times just to learn it and we're slow.

They had tentatively decided that I was going to take the year over. During my second year they were thinking about it. The Dean of Minority Affairs was basically a powerless person and she knew that. There was a Jewish woman there, Dr. Fine, bless her soul, she had tenure. She fought for everyone because she found that when she went through school she experienced discrimination, being a Jewish woman. She also fought for minority student's rights. Dr. Fine found out about me and decided to help me.

The other interesting thing was the response of faculty who taught the courses I had to repeat, especially the course which I received a barely pass for a grade. One faculty person stated, if I had wanted Muriel to take my course over I would have failed her. A barely pass range is from 65 to 70, which is still passing, but just on the low scale. I remember this because this faculty member was screaming at the Dean who is really the slime of the earth, you know a barely pass is still a pass. If you put Muriel back in my class I will refuse to accept her. So, both professors supported me.

Dr. Fine decided to put me in her section during my second year so she could supervise me and tutor me. As a result, I received honors in microbiology. The physiology professor went to the Dean and informed him of how well I had done and recommended that they leave me alone.

Dr. Fine met with the Student's Standards Committee and convinced them not to require me to repeat my first year over based on how well I was doing in my second year course work.

At first I thought I was the only student having problems. I was embarrassed; however, after talking to other minority students I found everyone was experiencing rocky roads, here and there. So, we decided to get together and go to the Dean. Some of the other Black students, the Dean of Minority Affairs and I, went to see the Dean of the Medical School. We took this opportunity to voice some of our concerns. The first thing he said to us was, some of you are not as smart as you think you are, I was appalled. I thought the Dean of Minority Affairs would say something but she didn't. Everyone just sat there looking at him (I felt paralyzed to do anything), because I knew if I did anything they wouldn't let me graduate for sure. We were all very shocked by the Dean's statement and by the Dean of Minority Affairs lack of response, but a lot of things like this go on.

Many difficult situations also occurred in the clinical rotations, such as being ignored when I went on attending rounds. They wouldn't ask me questions or if I asked a question, they made me feel invisible, I was ignored. I could never feel comfortable. I would try to be an enthusiastic student and ask what do you need me to do? They would say nothing, I would come around and they would have done all of the IVs and blood work, things I needed to learn to do. And then they would write on my evaluation, Muriel was not available for procedures. They would verbally and emotionally abuse me. I had never gone through any type of educational environment where it was like that. I found I was fighting all the time, or just being worried about getting the right answers, because if I didn't get it right they were going to think I was stupid. It was usually the attending and the resident against me, but then when the medical students were backstabbing me because they wanted to get honors or because they wanted to look smart, this made things even more difficult for me.

Well, there are a lot of things that I went through, but I did graduate and Dr. Fine is still one of my best friends in the world.

Muriel encountered so many problems in medical school that she ultimately went to a Black female psychiatrist who was a friend of Dr. Fine's. Muriel felt she was becoming paranoid. She started having palpitations, because she didn't know who her enemies were or who she could trust. The psychiatrist assured Muriel that she was okay, but she was experiencing institutional racism.

Muriel indicated the obstacles she faced as a Black female were somewhat different from the obstacles Black males encounter.

> I say it's a yes and no situation. I think that in terms of the racism, yes; but, then I also know that some of the things that I had to deal with was just because I was a women. Such as while doing surgery and the surgeons are talking about this woman's legs. And they're all laughing and joking and they're looking at me like well can't you laugh at this joke? And its no, because it's not funny.

c. <u>Financial Cost of Medical School</u>. The total cost of Muriel's education was approximately $100,000 plus the interest. She financed her medical education with loans and some scholarship money. She received no financial assistance from her parents.

d. **Medical School Support Systems**. Support systems are vital to the successful completion of medical school for Black medical students. Muriel discussed some of the support systems that were helpful to her during some very traumatic experiences she encountered in medical school. However, many of the systems that were readily available to the other participants in this study were not available to Muriel. These included parental support and the support of the Minority Affairs Office.

Muriel found the encouragement and support she received from the church as being very helpful to her.

> Church. A friend of mine in medical school who had a lot of similar problems was very active in a church. After having those negative experiences previously mentioned, I started looking for something. I knew that I had psychiatric help, but I felt I needed something else. So, I started going to church. There weren't many doctors there, if any, but the main thing was the people at the church didn't really care that I was a student. They were just so pleased that there were minorities in professional schools. They would have me over for dinner or told me to call them if I needed anything. I didn't really use that service because I was also at a point where I didn't know who to trust for a lot of different reasons. But, just going to church every (week) and being around Black people and hearing people say how is school? Don't worry, just keep doing it. Shaking hands with church members after service, getting hugs from the older ladies in church. You know, that in itself just made me feel better although the service only lasted for one hour.

Muriel indicated she needed the support of her parents during medical school.

> My parents. I'm not saying that all divorced parents are bad, but my parents didn't handle their divorce very well at all. They weren't supportive of me financially or emotionally.

> I think the one thing that my parents gave me, especially my father, was the motivation to study because my father always believed that knowledge was power.
>
> While in medical school, I used to say, Look! My parents are divorced, yet they couldn't even see that I was a child experiencing the pains of divorce. They saw me as a minority student. I mean, I had multi-dimensional problems. Divorced parents can sometimes give children (tremendous pain) the faculty didn't (acknowledge) the problems. They saw me as just being stupid. But, I think the church and Dr. Fine were very helpful to me. There were other friends who were supportive. Friends who said, you know you are going to graduate no matter what they say, you are going to graduate.

Muriel did not feel that the medical school faculty were supportive of her in general, but notes there were a few faculty who were. She also feels some faculty were not fair in grading. She had some Black faculty who were helpful and served as role models and others who were not helpful. Muriel sees herself as a role model and mentor for Black youth and medical students.

e. <u>Factors Contributing to Success in Medical School</u>. Muriel saw the following factors as contributing to her successful completion from medical school.

> To summarize it, I think myself. I think my self-drive, even though I had some low points in which I doubted myself, I think that somewhere inside of me I just had a drive to do it, no matter what people said. I think that my good friends in medical school helped. And I think praying helped. I think my uncle helped, but the main thing, I think it was me because I can have all the help, but if I can't believe I can do it, I can't do it. So I think it was me.

Additionally, Muriel felt certain characteristics were also necessary to succeed in medical school.

- Perseverance, no matter what they tell you.

- Self-belief and self-motivation.
- Confidence, even when you don't feel confident anyway, which is hard. It's so easy to say, but its hard to do, but you have to somehow feel confident.

f. **The Need for Blacks in Medicine**. There are many factors contributing to Black underrepresentation in medicine. Muriel's response on this issue was:

> Well to be honest with you I think that a lot of Black people now are going to business school. These are middle class Blacks who have had exposure to people in graduate school. But, I think for the poorer people it's probably a lack of education. It starts from elementary school and high school. I was lucky I knew about professions and my parents pushed me back then. A lot of poor children have parents who aren't educated, so how are they supposed to be helped with their homework, that kind of thing. And they don't have any Black role models. I'm from a professional family, but some other children only know that their father pushes drugs. So, what do they know about Black doctors and Black lawyers, so, probably it's the network (and environment) they are exposed to.

Blacks do make significant contributions to the field of medicine.

> I think Blacks should be the best of whatever they are, and not the best Black xyz. I think they should learn and also be experts in anything that the White people specialize in. Some people think Black medical students should only learn about Black illnesses, such as high blood pressure, but if Blacks are going to serve a wide base population, they need to know about a lot of different things.
>
> I also think Black physicians should be role models and spokesmen for other Black people. That's why I'm doing a public health fellowship. I want to focus on minority health issues, patient education and health promotion, specifically towards minority communities. Now some people have asked me why I am doing this, because I'm not going to make any money. But one of the things I learned from the church was Black people who can pay get tired of seeing White physicians. They will pay for a Black physician who is (competent)

and there is a market for it. In church, people would ask me about hypertension and other related diseases. I am interested in educating poor Black people, and if I don't make money from doing that, fine. There is a market for educating middle class and upperclass Black people on many medical issues. They also want to be knowledgeable about their health. No one has tapped that market. I have one thousand members at the church I attended who want me to return there to practice.

Muriel sees her role in bringing equity for Blacks into medical education in the following way:

Well, what I'm doing now, standing up for myself, because when I stand up for myself I'm also standing up for other Black people. When people see me, unfortunately they see me as a Black person and that's all, instead of just Muriel Simms.

I feel I have to stand up because I may not benefit from it, but maybe someone else will. I have to stand up even if I don't win. If people keep standing up, one day its going to break down racism.

Muriel also sees a need for Black physicians to participate in policy decisions that impact on the health status of Blacks.

Yes, definitely. That's why I'm doing the Public Health Fellowship. As a matter of fact my uncle has a private practice in (a large city). Because of the public health issues and all of the implications the governmental and financial issues have on his practice, he has found it necessary to be more publicly outspoken. He's written editorials in different newspapers about (the issues). He is involved in the health care of the underserved population. My whole family is very political. My parents were very politically active in the Martin Luther King movement. We marched and (were totally involved). My mother ran the P.T.A. My father also helped in the school and helped our Black association. My parents were always very outspoken and very active. They had some bad qualities, but this is definitely a good quality and I picked up this quality from them.

g. **Attainable Rewards**. Muriel stated she will practice in a large inner city setting. She envisions herself earning around $100,000 per year, although she does not see herself realizing this goal anytime soon, but eventually.

3. **Case Presentation: Anthony Hubbard**

Anthony Hubbard is a 26 year old Black male, who is currently a fourth year medical student at a medical school in Massachusetts. Anthony has concurrently attended law school and medical school. He will receive his law degree and medical degree in 1990.

Anthony Hubbard is the youngest of three children. He grew up in a suburban Black community with his parents and two siblings. Both of Anthony's parents were municipal workers for the transit authority. They were able to move their family out of the housing projects into the suburbs to provide a better life for them.

Anthony attended a predominantly White high school as a result of the bussing school program in his community. When asked what his major course of study was during high school Anthony responded:

> I guess I was in the advanced college track, even though they didn't call it that. I took what was called earth science, chemistry, biology, honors chemistry, honors biology and advanced placement physics. I took algebra in the ninth grade, geometry, trigonometry and advanced placement math, which was calculus.

Anthony Hubbard feels his high school education adequately prepared him for college. Anthony received some

assistance from his guidance counselor in high school and some assistance in preparing for college, but he stated:

> I just knew a lot of people.

Anthony attended a private Ivy League undergraduate university where he majored in natural science. He completed all of his premedical school requirements during his undergraduate studies, receiving a B in biology, chemistry and physics. He attained his bachelor's degree in natural science with a 3.2 grade point average.

Anthony had no family members in the medical profession to serve as role models. His parents did have a friend who was a physician, but Anthony had no close contact with this physician. When this investigator asked Anthony how old he was when he decided to become a physician, he responded:

> I thought about it as early as elementary school. I had serious thoughts about it when I was in junior high school and until I enrolled for my premedical courses in undergraduate school. I knew all the steps that it took as early as junior high school.

Anthony knew these steps because:

> I just read a lot. My parents made sure that I had as much information as they could give me while I was growing up.

a. <u>Factors Influencing the Decision to Become a Physician</u>.

> Basically, as a male growing up in a predominantly working class community, the physicians held a prominent position or status, someone people looked up to. Being an NBA star, really wasn't what I wanted. Just the whole notion of doctors being someone that people looked up to, it meant that they had accomplished something. It was the prestige rather than the income that I was initially interested in.

b. Admission and Obstacles in Medical School. Anthony did well on his MCAT examinations and feels that the scores that he received on the MCAT examination were a reflection of his true ability. He also feels that his MCAT scores were a reflection of his strong high school preparation in mathematics and science. He only took his MCAT's once. He did not take an MCAT preparatory course. Anthony was accepted to one of the Ivy League medical schools on his first pursuit. However, Anthony did face many obstacles while pursuing a medical education. Although Anthony did not encounter any obstacles in the application process, he feels they are no different from the obstacles Blacks face in society in general.

Anthony did encounter obstacles during his clinical rotations. These came in the form of inadequate information from clinical faculty and staff, a lack of warmth from people in the clinical areas and a feeling of discomfort from those around him. He felt alienated at times and that he had to develop a tough skin to preserve his self-esteem.

Anthony saw gender differences in the obstacles faced by Black females and Black males.

> In some ways its worse and in other ways its better because as a Black male you are threatening. In some ways they don't mind helping a Black woman. The attending physicians are predominantly White males. Insofar as the whole male competition issue, I don't think its just a Black, White issue, but just a male, male issue.
>
> Now as a Black man, you don't necessarily want to help out the opposition. In some ways it's not as fraternal as it could be or it's not as fraternal as it is for White male physicians and White male

medical students. White male physicians and Black female medical students appear to get along a little better. But not in surgery where its more technical, such as orthopedics, a woman would have strikes against her from surgeons. Generally, they act more like "frat" people. They like to talk about sports and impress each other with how gender specific and how macho they can be.

Whereas in medicine, where you do a lot more talking and interacting, I feel that some male physicians or males in society period are more comfortable with women. They don't find women as threatening, but at the same time, where that goes against women, they are not taken seriously. I don't feel that women get the respect. Even though White male physicians may feel more intimidated and threatened by me, and I'm not a big person, there is a certain amount of respect for me. They don't take women as seriously because of the stereotypes (that exist) such as a woman will have to go out on maternity leave, etc.

The problem that I want to highlight is the feeling of alienation because of the fact that a lot of times you are the only Black person. In many ways you want to make friends, you want to be open, but you know that a lot of people stab you in the back whether you are Black or White. In many ways the race issue comes into play in that if someone of the opposite race stabs you in the back its almost as if you are supposed to expect it. It's not that they do it because you are Black, but if it happens, its like, why should I be surprised they are not trying to hook me up anyway because I'm a part of the disfavored group even though I occupy a favored position in society. It's paradoxical, I'm only hooked up because I attend an Ivy League medical school, I'm in law school, I have all of this ambition, I'm young and I have a good head on my shoulders, but you know that is tempered by the fact that people still see me as a Black person, I realize that I'm no better than anyone else.

Anthony was not always made to feel he was a part of the team during clinical rotations.

At times I've been made to feel like I was a part of the team, other times I felt merely tolerated until the rotation was over. At times, maybe I'm having a bad month, or at times maybe the people whom I'm interacting with are having a bad month, so I can't really say it was their fault, but it

is almost as though for Blacks, our equation is complicated by just one more variable. You have the routine problems which occur during the clinical rotations, and then you have to handle the racism. It is an additional factor, because in a way, it shows you the pernicious quality of racism. Even though it is institutionalized it is not written in any laws, it is a part of our social customs.

I think that when going from clinical experience to clinical experience, at the beginning of the clinical month people are very worried. They don't know who you are. I think that's true of a lot of people, but especially if you are a Black male, it takes people a while to warm up to you. It kind of bothers you because you know that you are not a martian. How I feel really doesn't come into play, so I just go in there, it's almost as though I'm going into battle. I have to put on my game face and know that there are certain kinds of words that I can't say, I'm not even talking about slang. I can't be too funny, I can't be too stilted, I can't be myself. I have to portray the image of a medical student.

It's difficult coming from a background where neither one of my parents went to college, much less medical school. They were municipal workers. I've had to do this off the cuff. I have to be calm so that I can make other people comfortable so they can teach me. It's sad. I have to make them feel comfortable first. It's not as though I go to a clinical rotation with ripped jeans and headphones. I go in very conservative, professional and that still isn't enough.

In many ways I feel that not only my educational experience in medical school, but my experience as a person in society has been compromised. As a child of God I understand that I'm part of this world, but I am not necessarily involved with all of the nonsense of this world. If I was a Kennedy or Rockefeller and born with a silver spoon in my mouth, I would be a lot more vulnerable to the injustices that go on. Part of the reason that I want to become a physician is because I want to address these issues. The reason that I also went to law school was because I wanted to address these issues in a special way by dealing with issues such as health policy, educational policy, as well as being involved in public life, in some manner or form. I would like to help uplift people, people who haven't had a chance, such as many of the people I grew up with.

A study was published yesterday which indicated 23 percent of Black men between the ages of 20 and 29 years are in jail or on parole. And that is even greater than the percentage of all Black men in college. With this kind of press, I feel that it is incumbent upon me to use the talents and the abilities that I've been blessed with to try and make a contribution in a positive way. I have to put up with people not really being nice to me while going through this hard program.

c. **Financial Cost of Medical School**. The total cost of Anthony's medical education will be approximately $148,000. He financed his medical education:

- With loans and by living from hand to mouth.
- GSL Loan - $46,000
- PLUS Loan - $20,000
- HEAL Loan - $15,000
- HPSL Loan - $10,000
- Medical School Loan - $30,000
- Law School Loan - $27,000

In addition to the above, Anthony still owed $5,000 from undergraduate school. Anthony also commented:

I thought about applying to Annapolis and I also thought about ROTC, but being in the military would limit the options. I don't think that I would have been able to do all of the things such as medical school and law school.

d. **Medical School Support Systems**. Anthony indicated there were a number of support systems available to him in medical school.

I'm very involved in the Black student organizations in medical school and in law school. I'm very involved in my church. These are all that I can handle with my studies, but they are my support systems.

Also, the Minority Affairs Office played a big role. It's a very viable office.

Anthony saw his parents as providing an important support system.

My folks were very supportive of me during medical school, they gave me a good foundation and they have helped me to a modest degree financially during medical school.

Anthony felt it might have been helpful if his parents had been physicians.

Well, if there were more people in my family who were in the field of medicine it might have been helpful. It might have given me insight. I'm not being critical of them, its just the fact. My brother, my sister and I are the first generation to go to college. My uncle is a physicist. He is a very bright scholar. In many ways I'm like him. He has his Ph.D. and I'm in medicine. It's hard to trailblaze, you know how you want to do things, but at the same time your folks want to tell you what to do.

Anthony's comments regarding medical school faculty was:

It depends on who it is, minority faculty have been very supportive. The people whom I have selected as advisors may or may not be affiliated with my medical school, but they are the big wigs, because when I need something I go to the top.

Anthony found the medical school faculty to be mostly fair in grading him. Anthony has had very little exposure to Black faculty in medical school.

I have not had any Black faculty. I had approximately four single lectures by Black house officers.

e. <u>Factors Contributing to Success in Medical School</u>.

When asked which factors contributed to Anthony's success in medical school he responded:

Mostly prayer, prayer and God's love which has been manifested through family support, the Black medical student organization and the Black law student association. Those are the factors that have helped me most in medical school.

As Michael Jordan didn't get to jump so high or be such a good basketball player over night, the same thing has occurred with my academic success. I

was tracked high academically from elementary school, so in many ways there is not a whole lot which distinguishes me from many of my White counterparts. It goes back, it didn't happen in high school, it started in elementary school and it even predates elementary school. Every entitlement program over the past 30 years has either directly or indirectly helped me. Headstart, which was initiated in 1967, came at a time when I was 4 years old. I was born at the right time to get into the Headstart program. Shirley Chisholm had gotten into Congress, so I benefitted from her innovations, the Black power movement was very helpful. My father was a veteran, therefore, through his job on the transit authority and his veteran benefits we were able to move out of the housing projects and buy a home in the suburbs. I was bussed to school and attended a grammar school which had the highest reading scores in the city, this school also had the best teachers. Bussing was the result of the Supreme Court decision to desegregate schools. All of these things helped me.

I came from a stable family. The role of parents can't be emphasized enough. My father worked nights and my mother worked days so that one parent was always there. My parents sacrificed tremendously. It's tough to even think about what they have done. I know that I could never pay them back even if I became as rich as Eddie Murphy. No amount of money can compensate for the love they have shown me. I will always appreciate them. I realize that I am not exceptional, but I was raised right. I was blessed with insight to give credit where credit is due. No individual can do it by themself. I have been humbled into accepting help.

I was also active in student government in school. When I was in junior high school I was the student government president. When I was a junior in high school I became vice president of student government, and as a senior I became the president of student government.

I grew up in a hard-working community and I knew to stay away from drugs.

f. **<u>The Need for Blacks in Medicine</u>**. Anthony commented on the underrepresentation of Blacks in medicine in the following way:

Take my story, the only reason that I'm here is because I'm faithful and because I have certain necessary attributes. Everyone feels that they can succeed, fortunately, I had a very supportive family and faculty from junior high to high school to college. They were supportive or I never listened to any negativism from them. However, as I spoke about this hospital earlier, today as I was working in my clinical rotation I did not feel a part of the team, I have to milk blood out of a rock. I try to get as much positive feedback as possible but everyone can't have that vision of self-esteem, mine waxes and wanes just like everyone elses. I think if people come from very stable family structures where both parents are involved in the child-rearing experience, it's helpful. I am the third sibling, my older siblings did well and I was able to benefit from their mistakes.

Many adolescents just don't treasure long-term vision, now maybe I sound kind of old fashioned, well in many ways I am old fashioned. But, you have to plan. The secret to what I've done in such a short period of time has been mostly through planning and also not being easily discouraged. I assumed that when people tell me no, it doesn't always mean no; it's just a negotiating posture. So, prayer and strong parenting have helped me succeed.

Anthony's response regarding the role of Blacks in medicine was:

Medical school applications have been dropping precipitously over the past four years, especially this past year, the numbers were low for the class entering in 1990.

I think Blacks have a role in medicine, to be everything from clinicians to academicians to researchers and to political agents, which is what I am aspiring to be. I don't think it's any different than the roles of Blacks who have made it in other fields such as law, business, religion. I think, that with our shortage of manpower, we can't afford to limit ourselves to only taking care of people or just doing bench work. We have to give something back to the community.

Anthony stated the type of practice he will work in will be:

The physician seeking political and social change in medicine through public health and in psychiatry. The practice location will probably be in a federal agency, such as Health and Human Services, in a large inner city either in New York or California. Although, I will be doing policy work, I will not be removed. Much of my work will be concerning and touching minorities and impacting upon their lives.

Anthony offered the following advise to Black young people interested in medicine.

I went bowling with some of the youth in my church, the teenagers, there was a young woman who attends a very academically challenging high school in Boston. It was interesting watching her interact with everyone else. It was as though she was isolated from the other teenagers because she was smart. I asked her what school she attended and stated, you must be pretty smart. I asked her what she wanted to be? She said she wanted to go into psychology. I informed her that I would be entering my psychiatric residency in 18 months and asked if she had ever thought about attending medical school? She said yes, she thought about it, but stated it's too much work. I informed her that getting a doctorate in psychology was no less work. It's interesting that even Black youth who are in a position to actualize their dreams still have self-doubt. It's something that we suffer with from cradle to grave. It's especially endemic and exaggerated during the critical period of adolescence. Yet, adolescents have to make difficult career choices. Adolescents take risks in so many different ways. They take risk by driving fast, or hanging out at parties late at night, although young people have been getting shot. Those are risks too. Why not risk your mind. People say they don't want to fail, they don't want to be embarrassed. Well, if you aren't embarrassed to go on the dance floor, and try to do the electric slide, you shouldn't be afraid to risk your mind. I think that we should become risk-takers in the true meaning of the word entrepreneurship in the way we deal with ourselves.

I'm bright, but I'm not exceptional. I have enough confidence in myself, that I will be blessed to know, what I need to know when I need to know it. Part of the human condition is failure. I know that I'm going to fail at some things, but if I don't try once, then I have

failed. If I try something four times and fail three out of the four times at least I succeeded once. My father used to tell me, "If you reach for the stars, you may not get there, but you will certainly reach the moon." If my world comes down tomorrow and tonight is my last night, I feel confident that I have lived my life as fully as I could. What I've done has not really edified me, but it has glorified and magnified God. I have lived in a manner which other people can gain strength from hopefully.

I have come to a point in my life where even my parents admire me as an individual not just as their son. I respect myself, I love myself. I'm not narcissistic and egotistical so far as thinking that I can walk on water, but I am doing my best. I have to love myself for others to love me and to be able to deal with the hate that I face in life.

It's difficult as a Black man, when I watch the news last night they said 1 in 4 Black men are in jail between the ages of 20-29. What does that say about my group in society? Even if the news is just stating the facts, it sets me up to hate myself, because of things that I have no control over, which is the color of my skin and my genes which make me a man. It causes people to think that I am a dangerous monster. People hold onto their purse when I am around, even though I will end up making more money than they do and I wouldn't steal from them any way. I've got too much going for me to throw it away by stealing. It's a lot to deal with, but if I had a choice of what to come to this earth as, it would be as a Black man. It's the most challenging thing to me. I'm sure Black women feel the same way.

My life is challenging, it's hard, its difficult. I have had wonderful experiences. Many people Black, White, male, female, old and young have made me feel good about myself, life is give and take. Although I'm $148,000 in debt, I feel it was worth it.

My colleagues have said, "You've got a lot of chutzpah, a lot of guts for taking on the challenge of medical school and law school. I don't claim to have done it well, but I did survive. I will complete 11 years worth of education in 9 years. I completed my undergraduate education in 3 years. This isn't to show off, but it was an economical necessity.

Black leaders such as Martin, Malcolm, Frederick Douglass, the 54th Massachusetts Regiment are individuals who have paved the way for me. I am the legacy of my strong Afro-American heritage and the heritage of many other people who have been wronged. Our heritage is not only one of oppression, our heritage to me, is one of overcoming. I have been able to achieve my success because others have come before me and made it possible for me. I want to continue and I want to be an integral part of that legacy. It is not only a legacy for Afro-Americans, but it's a legacy for all Americans and it's a legacy of all people worldwide. As Jesus says, "Inasmuch as ye have done it unto one of the least of these my brethren, ye have done it unto me." I realize that as I attain and I occupy increasing positions of influence and privilege, I will have to help those who need help. It's a part of my character, it's a part of my DNA, it's a part of who I am. I couldn't live with myself if I wasn't doing things for other people.

I have had to delay marriage and I'm still in school at age 26, but it was worth it. I want to live a committed life as Martin said in his prophetic last speech about being a drum major for justice. The old song says if I can help somebody find their way, then my living won't be in vain.

My final message is:

- Have confidence in yourself.
- It's important to be accepted by your peer group, but you don't have to accept the terms that your peer group establishes, you can say no to drugs.
- Have pride in yourself and high expectations of yourself.
- Develop fortitude, don't just go with the flow.
- Stay in school even if there is only a single parent at home. You have a better chance of becoming a professional, i.e., doctor, judge, engineer, than becoming a professional ballplayer.
- Don't believe the hype (don't let the negativity in the community hold you down).
- Focus more on mind power, it's always been square to be smart, but we must change this attitude.

B. Profiles

The following profiles include an abbreviated description of seven of the study participants. The first four profiles include four physicians. One physician is still in post-graduate study as a resident. All of these individuals have successfully completed their medical education. The last three profiles include third and fourth year medical students who are still in the process of completing their medical education.

1. Profile: Dr. Frank Hess

Dr. Frank Hess is a 35 year old Black male who is a physician in one of the large Metropolitan hospitals in Boston. His specialty is in Pulmonary Medicine and Critical Care. Frank attended a traditionally Black medical school for a portion of his medical education and completed his medical education at a traditionally White medical school so that he could be with his wife. Frank Hess grew up in a mainly Black rural community with his parents and six siblings. Frank's father worked as a nurse for twenty years, then he became a hospital administrator and retired finally from politics. His mother was a housewife. Frank is married and he has two children. His wife is a dentist.

Frank attended an all Black high school and his major was liberal arts. He took geometry, algebra and biology in high school. Frank feels that his high school education adequately prepared him for college. He had no contact with a guidance counselor in high school and did not receive assistance in getting into college.

Frank attended two private undergraduate colleges. His major course of study was premedicine. Frank completed all of his premedical school requirements during his undergraduate studies. He received an A- in biology, B+ in chemistry and an A in physics. He attained his bachelors degree in science with a 3.8 grade point average.

Frank feels the factors contributing to his success in medical school were:

- The strong influence of my parents. They developed the desire to fight to be the best that I could be.
- Gods help has also been a strong factor in my success.

The attributes that Frank feels are necessary to succeed in medical school are:

> You must have a desire to learn. You don't have to be an A student to be in medicine. But, you must have the ability to postpone rewards and gains, be able to sacrifice and understand delayed gratification.
>
> I have seen many C students do better professionally and financially than some of the A students. A student must have the desire to care for patients and have a sense of altruism. Biochemistry becomes obsolete in the clinical area. Therefore, you must have the desire to help people and the acumen to acquire good grades.
>
> Self-worth is also a strong factor. Parents must instill in their children the belief that they must do their best in whatever they do. Parents must also put big dreams before their children. If the children have the desire and parents give them the exposure they will aspire.
>
> I believe that it is important for Black youth to attend traditionally Black undergraduate schools. They have more patience with Black students. They teach them a sense of self-worth and no matter what you want to be you can achieve it. Black youth who attend traditionally White undergraduate schools don't always have pleasant experiences. They frequently lack encouragement from faculty if

they are not the cream of the crop, or if they don't excel above average. I believe that Black youth must have the drive to become a physician, some readiness to absorb the material and self-confidence which is not nurtured in White institutions. Black youth frequently do poorly on White standardized examinations. These examinations don't always tell the entire picture. Tests such as the MCAT often screen out people who have not been exposed to this type of testing but who have the intellect to do well. Therefore, it is important for some youth to take courses such as the Kaplan course to help prepare for the MCAT's.

A sense of direction is also an important quality to have. My message to Black youth interested in medicine is:

- Always do your best and aspire to be the best.
- You must persevere to the end, be persistent.
- Do volunteer work in the community, do work with physicians.
- Learn to integrate information so that you learn to deduce. The ability to deduce is important to diagnosing.
- Do not restrict your dreams.
- Get a strong undergraduate education at a traditionally Black school. What Black schools have to offer Black students is important, it's a stepping stone to their success. Black education does not dwarf a students chance to enter medical school. Some Black students may not be candidates to withstand White institutions and Black education is a good alternative.
- Although medical education is expensive it will pay off in the end.

2. Profile: Dr. Charles Wood

Dr. Charles Wood is a 45 year old Black male who is a physician in a hospital in Boston. Dr. Wood is an orthopedic surgeon. He obtained his medical degree from a medical school in Massachusetts.

Charles Wood grew up in a large urban Black community with his parents and three siblings. Neither of Charles' parents was a college graduate. His father worked as a truck driver and his mother was a housewife. Charles is

married and has three children. His wife is a registered nurse practitioner.

Charles attended a predominantly White high school, and his major was special mathematics in the technical course. Charles took four years of mathematics and four years of science including chemistry and physics. Charles feels that his high school education adequately prepared him for college. He had some contact with a guidance counselor in high school but did not receive any assistance in getting into college.

Charles attended a large private university for his undergraduate studies. His major course of study was pharmacology. Charles completed all of his premedical school requirements in undergraduate school. He received an A in biology, A in chemistry and B in physics. He attained his bachelors degree in pharmaceutical science with A 3.4 out of 4 grade point average grading system.

Charles feels the factors contributing to his success in medical school were:

- My background training was a big contributing factor.
- I had a good background in science. I think the biggest problem is the background in science.
- Strong attitude to complete medical school and do it well.

The attributes Charles feels are necessary to succeed in medical school are:

- Very good background in science.
- Very good understanding of science is absolutely essential.
- The willingness to sacrifice is necessary, medicine is physically and mentally demanding over a period of time.

- Having endurance.
- Being able to delay your gratification.
- Being exposed to science early in life.
- Must have a love for science, you must be able to work with science as a tool.
- You must be able to deal with logic, the cause and effect type of logic.

3. **Profile: Dr. Bruce Miles**

Dr. Bruce Miles is a 32 year old Black male who is a physician at a large metropolitan hospital in Boston. His subspecialty is in Pulmonary Disease. Bruce obtained his medical degree from a private medical school outside of Massachusetts.

Bruce grew up in a rural area with his parents and twelve siblings. Neither of Bruce's parents attended college. Both his mother and father were self-employed and worked on the farm they owned.

Bruce attended an all Black high school and his major was business. He wanted to major in mathematics, but it was unavailable because of the town size and because there was not a large enough student interest in mathematics. Bruce took biology, chemistry and algebra I. More advanced mathematic courses were unavailable. Bruce did not feel that his high school education adequately prepared him for college. He had very little contact with a guidance counselor during high school, and he received no assistance in getting into college. But Bruce knew the direction in which he wanted to go; therefore he went to college to pursue his mathematic interest.

Bruce attended a small private all Black college. He majored in science and mathematics. Bruce completed all of

his premedical school requirements in undergraduate school. He received A/B in biology, A in chemistry and A/B in physics. He attained a bachelors degree in biology and chemistry with a 3.7 out of 4 grade point average grading system.

As Bruce reflected on the factor contributing to his success in medical school he indicated:

> The biggest factor was basically believing in myself. Believing and knowing that I could just about do anything I put my mind to and believing in who I am. If my fellow peers can do it, I can do it too. I can do it better, at least that is what my Mom used to say. She said what ever you do, be the best at it.

The attributes Bruce feels are necessary to succeed in medical school are:

- Self-confidence.
- Patience.
- Self-discipline.
- Willingness to work hard.
- Self-denial.
- The ability to stick with it.

4. <u>Profile: Dr. Loretta Clark</u>

Dr. Loretta Clark is a 41 year old Black female who is a first year resident in internal medicine, primary care at a hospital in Boston. Loretta obtained her medical degree from a medical school outside of Massachusetts.

Loretta Clark grew up in a large urban Black community with her parents and four siblings. Neither of Loretta's parents attended college. Loretta's father was a laborer but had to retire because he lost his sight. Loretta's mother died just prior to her re-applying to medical school for the second time. Loretta is divorced and has one son

whom she feels was very supportive and helpful to her while attending medical school.

Loretta attended a private predominantly White high school, she majored in science and mathematics. Loretta took algebra, trigonometry, calculus, biology, chemistry and physics. Loretta did not feel that her high school education adequately prepared her for college. She indicated:

> The transition from high school to college was quite a transition for me. I think it was mostly because I had to work and pay my way through school. But, I knew I had to do that in order to go on for a higher education. I knew I had to work so it was never a decision to say, oh, I won't work, I had to do it.

Loretta's response to the guidance counseling she received in high school was:

> I just want to say, I didn't get any positive feedback. I wanted to be a doctor and no one ever told me, oh yes, you can do it. They gave me other options. I sort of resented that.

Loretta did receive some assistance from the guidance counselor in getting into college. She was given the names of colleges to apply to and advice on how to prepare for the Scholastic Aptitude Test.

Loretta attended an Ivy League private college for her undergraduate studies. Her major course of study was science. Loretta completed all of her premedical school requirements in undergraduate school. She received A/B in biology, A in chemistry, and B in physics. She attained her bachelors degree in Natural Science with a 3.2 out of 4 grade point average grading system.

Loretta reflects on the factors contributing to her success in medical school by saying:

- I just believe in myself. You have to know that you can do it because you get a lot of negative feedback such as maybe this is not for you, maybe this and maybe that. I talk to people across the board from different medical schools, and they all say the same thing, you don't always get good feedback as to you capabilities.
- Having a strong family background.
- Having inner-worth. I don't know where you get it from, religion or somewhere else, I just know that some people have it and people that have it can attain anything. I probably got it from my family.

Loretta's response to the question, what other factors, other than high scores could be used to predict success in medical school?

> I hate to say it but I think I need to see proof on paper that a student can do it. I think they (Black students) can do it. I would recommend to them the same thing that was recommended to me when I initially applied to medical school: reapply next year. I think reapply next year allowed me enough time to prove to myself that I could get A's in graduate school. If a student hasn't done well they must do something to show (the Admissions Committee) that they can succeed. I think what the student (really ends up) doing is proving to him/herself that he/she can (succeed). If a student is struggling and getting low grades and low scores, they must say to themselves, can I (truly) make it through medical school? I think the only thing that helps them realize that they can make it through medical school is if they pull an A.
>
> A low grade doesn't tell me the (student) can't do it. If the (student) told me they got a C in organic chemistry, I would say well, now, what are you going to do about it? I would expect the student to say I'm going to retake organic chemistry. Then I would respond by saying, well, now, try and get an A, you can do it, there is no way you can tell me you can't. If you plan to make it through medical school you can pull an A in any course you try to. You have to, if you can't do that then how can you make it through medical school?

I think what helped me more than anything else was for me to realize that I could (succeed). If an instructor told me that I needed an A in a course, then I would get an A. It may seem silly, but that is how I proved to myself that I could succeed.

If you don't get an A, then get a B. If you get a B it's better than the D you received the first time you tried.

Finally, Loretta responded to the question, which attributes she felt were necessary to succeed in medical school by saying:

To be able to work under pressure, I think that is what medical school does for you. I don't say it's good or bad. I do think some people give you more pressure than you deserve or need or ever will need, but I think it's important to be able to hold up when you are under pressure.

Excuses have no place in medical school. Even a death in the family is sometimes not excusable. Even someone as important as your mother is sometimes not excusable. That is one of the worse things that I can imagine. Yet (medical students) are still expected to perform as well as their peers, inspite of losing the most precious thing to them. These situations occur frequently during your medical school years, the death of a grandparent or other relative; however, you are still expected to continue on. You have to learn to give yourself permission to continue on and you have to tell yourself that it's okay to continue inspite of the crisis going on around you. It's sort of a license to continue on inspite of the bad things that are happening to you.

It was a hard thing for me to realize that I was going into a profession where people are supposed to care about people and find out that the caring is not there. It is not just me that feels this way. I have talked with my colleagues and they feel the same way. You have to be able to function under difficult situations and under pressure.

5. Profile: Wendy Davis

Wendy Davis is a 25 year old Black female who is currently a fourth year medical student at a medical school

in Massachusetts. Wendy is also concurrently enrolled in a Master of Public Health degree program. She will obtain a medical degree and a Master's Degree in Public Health.

Wendy Davis grew up in a racially mixed suburban community with her parents and one other sibling. Both of Wendy's parents are college graduates. Wendy's mother is a chemistry teacher in a high school and her father is a social worker.

Wendy attended a racially mixed high school and she majored in mathematics and science. During high school she took geometry, algebra, trigonometry and calculus, and biology, chemistry, anatomy and physiology, genetics microbiology and physics. Wendy feels that her high school education adequately prepared her for college. She had some contact with the guidance counselor during high school and she did receive assistance from the guidance counselor in getting into college.

Wendy attended a private undergraduate college. Her major course of study was chemical engineering. She completed all of her premedical school requirements in undergraduate school. She received an A in biology, and both of her chemistry and physic courses were pass/fail. She passed both courses. Wendy attained her bachelors degree in chemical engineering with a 4.6 out of 5 grade point average grading system.

Wendy feels the factors contributing to her success in medical school were:

- Parental support.

- Family support.
- Support from other Black students.
- Her belief in God.
- Strong academic preparation prior to college.

Wendy feels these attributes as necessary to succeed in medical school:

- The ability to persevere.
- Having the ability to work hard to overcome negative attitudes such as fellow students and faculty who treat you as though you only were admitted to medical school because you were a minority.
- Must be able to stay on top of your studies because massive study is required in medical school.
- Must be able to ask the supportive services for help when you need it such as tutoring. Never wait, don't be embarrassed to ask for help.

Wendy's message to Black youth interested in medicine:

- You must think early about the field you are going into and start to prepare yourself.
- Start saving your money.
- Do some community outreach to help you determine if this is the field you really want to go into.
- You must be well-rounded.
- You must have direction while in college so that you prepare academically.
- Look at summer programs at medical schools. They will give you a realistic view of what medical school is about.
- Apply to a wide variety of medical schools because you never know what type of candidates the medical school may be seeking.

6. Profile: Stephen Jones

Stephen Jones is a 26 year old Black male, who is currently a fourth year medical student at a medical school outside of Massachusetts. Stephen has taken a year off from medical school to obtain his Master's Degree in Public Health here in Massachusetts. He will return to medical school to complete his fourth year of medical in the fall.

Stephen has three other siblings. He grew up in a large urban city which was mainly Black. Stephen grew up in a single parent home because his father died when he was seven years old. Neither of Stephen's parents was a college graduate.

Stephen attended a predominantly Black high school where his major was science and psychology. He took biology, physics, chemistry, advanced mathematics and precalculus in high school. Stephen feels that his high school education adequately prepared him for college. He had very little contact with his guidance counselor in high school, but received no assistance from the guidance counselor towards getting into college.

Stephen attended a private undergraduate university. His major course of study was premedical and psychology. Stephen completed all of his premedical school requirements during his undergraduate studies. He received a C in biology, B in chemistry and A in physics. He attained his bachelors degree in science with a 2.73 out of 4 grade point average grading system.

Stephen feels that factors contributing to his success in medical school were:

- He did not listen to any of the myths about Blacks.
- He believed in himself.
- The support Black medical students give to one another is very resourceful.
- Mentorship programs are very significant in assisting students to get through medical school.
- Having the ability to relate to patients.
- Extra curricular and community service.
- Having interviewing skills.
- Having compassion.

- The Black Medical Student Association was both supportive and provided a network.

7. **Profile: Janelle Lewis**

Janelle Lewis is a 26 year old Black female who is currently in a joint degree program to obtain her medical degree and her Ph.D. in biochemistry. Janelle is attending medical school in Massachusetts.

Janelle grew up in a small Black community with her parents and three siblings. Both of Janelle's parents are college graduates. Janelle's mother was a school teacher and her father was a school principal.

Janelle attended an all Black high school. She majored in the college preparatory course. During high school she took algebra I & II, geometry, pre-calculus and biology, physical science, chemistry and physics. Janelle feels her high school education adequately prepared her for college. She had some contact with her guidance counselor during high school, but received no assistance from the guidance counselor in getting into college.

Janelle attended a private undergraduate college. Her major course of study was chemistry. She completed all of her premedical school requirements during her undergraduate studies. Janelle was accepted into medical school prior to completing her bachelors degree. She was admitted after her junior year at college into the Early Selection Program at the medical school she currently attends.

The Early Selection Program coordinator visited the undergraduate school Janelle was attending and introduced

the program to the students. Janelle became interested and applied to the program; she was selected to be interviewed and accepted into the program. The Early Selection Program consists of spending the summer before the junior year, the summer before the senior year and the senior undergraduate year in the university associated with the medical school. All of Janelle's premedical school requirements were completed during her undergraduate studies. Janelle attained her bachelors degree in chemistry with a 3.5 out of 4 grade point average.

Janelle's response when asked about factors contributing to her success in medical school were:

> I have rapidly come to the conclusion that it is not all grades, because I have good grades but there were people who had better grades. I think a lot of it has to do with the person and other attributes such as participating in extra curricular activities. It's how well you present yourself and your ability to portray to the medical school admission committee that you really know what you want to do. It's being willing to work and having the ability to find the answers.
>
> - You need good study habits.
> - Must be highly motivated and have a desire to finish.
> - You must be assertive. You must seek people out to get the information you need. You have to force people to teach you because they are not always willing to give up information.
> - You can't wear your heart on your sleeve in medical school or you will get hurt.
>
> Professional Goals: I would like to conduct research. I am interested in academic medicine and would like to teach in a medical school. I would also like to practice some form of medicine, i.e, emergency medicine.

The preceding case presentations and profiles provided an examination and overview of experiences of individuals

who are currently attending medical school or who have graduated from medical school. However, to gain a better perspective of the factors contributing to the success of Blacks in medical school this investigator will present the findings revealed during the interviews.

C. Interview Captions

The following interview captions provide a compilation of comments made by seven of the study participants during the interviews. This method of presenting the material allowed this investigator to include important information which was left out of the profile presentations. However, this does not include statements made by the participants included in the three case presentations.

1. Factors Surrounding and Influencing the Decision to Pursue a Medical Education:

Listed below are a compilation of the comments made by the participants regarding factors influencing their decision to pursue medicine.

Physicians:

- Father's influence.
- Prestigious position.
- Desire to help people.
- Seeking method to apply science.
- Exposure to medicine in college.
- Encouraged by counselor because he did well in science.
- Black physicians speaking to Black students at college helped him realize it was an attainable goal.

Residents:

- Felt it took a special talent to help sick people.
- Exposure to summer program which improved mathematic grades.

Medical Students:

- Did well in biology, therefore steered toward the medical field by high school teachers.
- Had a wonderful experience in biology and liked interacting with people, felt the medical profession was a good field to bring the two interests together.
- Felt the medical profession would help save the world (human lives).
- Need for autonomy in chosen profession.
- To make a decent income.
- Exposure to summer program in science/engineering.
- Interested in helping people especially children.

2. Obstacles Encountered by Respondents Prior to Admission and While Attending Medical School:

The literature has cited many barriers Blacks face while pursuing their medical education. These obstacles continue to hamper efforts to obtain parity. The following situations were provided by the participants in this study as examples of obstacles they faced in medical school.

Physicians:

- One participant commented his major obstacle was the preponderance of White female teachers experienced during an OB/GYN elective course. This participant failed a very subjective examination and had to repeat the course. This participant ultimately received the third highest score of all students taking this OB/GYN course. Another obstacle this participant faced was faculty members passing negative information on to the department head about this participant.
- This participant was left out of the socialization that transpired between the attendings and students. He had an adversarial type relationship with attendings, and he was not included as one of the team players. No overt incidences occurred, it was a feeling. This feeling prohibited this participant from asking questions from time to time, but had no other ill affects.
- This participant commented racism is alive and well in 1990. No matter what you pursue and it was alive throughout medical school. I encountered no overt obstacles, but covert obstacles were there.

Residents:

- This resident indicated the same obstacles Blacks face in life are perpetuated within the medical education system. They are too many to count.
- People felt Black individuals didn't belong in medical school.
- Faculty and professors felt medicine was a male profession.
- Medical school was very tough, there were barriers, but a student could get around the barriers.
- Money was the biggest obstacle this participant encountered.
- Other obstacles encountered were experienced during clinical rotations, such as, patients called me everything but doctor. They assumed I was the maid, the nursing staff undermined me for whatever reasons, but for the most part people tried hard not to be that way.

Medical Students:

- One medical student commented: My White classmates always had the perception all Black students entered medical school through the back door rather than the front door. This student indicated the transition from undergraduate school to medical school was very dramatic, the volume of work students are expected to process in medical school was tremendous. Students are expected to function very independently, there is no coaching, you are on your own.
- This student also commented medical school was a pledging process, and stated a great deal of hazing goes on.
- The final obstacle revealed was the high cost of medical school, there were financial problems experienced by this student as well as problems with housing.
- This medical student addressed the issue of being perceived as unqualified to attend medical school. This student also suffered from mental and verbal abuse. Snide remarks were written on examination papers by faculty members.
- Another student commented: Certain professors and students expressed stereotypical attitudes towards Blacks and women. Black students had to prove themselves more than other students.

3. **When Addressing the Issue of Obstacles Being the Same or Different for Males Versus Females the Following Narrative Comments were Made:**

Physicians:

- Black females with the same amount of intelligence are treated better than their male counterparts, especially if she is light-skinned.
- There were no Black females in medical school when I attended.
- I think it's more difficult for Black females because of the issue of science. Traditionally, it is a White male profession, therefore females are confronted by a sex barrier.

Residents:

- I cannot separate Black males and females. I don't think Black males got any better treatment than Black females.

Medical Students:

- Males don't have to face the sex issue. Most faculty members are White males, they were biased towards females and towards Blacks.
- Black males are (perceived as being) more threatening. It is a male versus male issue rather than a racial issue.
- It's worse for the Black female. Both Black males and females suffer the consequences of racial bias, but Black females also face gender based discrimination. Black females face sexual harassment, and are belittled because they can't pull their physical weight.
- Essentially, its the same for Black males and females. Many of the stereotypes were directed towards my being Black versus my (sex).

4. **Support Systems Available to Participants:**

It was important to determine the types of support systems available to the participants during their medical education pursuit. Therefore, participants were asked to respond to a question regarding support systems available to them during medical school. Responses given were:

Physicians:

- Family, wife and daughter, church, parents, friends.

- Black Assistant Dean and Professor who handled minority recruitment.
- Faculty person over minority affairs gave me support and students gave support to each other.

Residents:

- Not much available, there were good support systems geared towards younger students, but nothing was geared towards older students, I felt isolated.

Medical Students:

- Family, friends in medical school, church, undergraduate sorority members, finance.
- Family very supportive, friends from undergraduate school, minority students in medical school.
- Students in medical school Office of Minority Students.

5. Support Systems Unavailable to Participants:

Additionally, this investigator felt it necessary to gather information from the participants on the types of support systems that could have been more helpful to them during medical school. They indicated the following:

Physicians:

- Better financial base.
- More Black physicians to befriend you or whom you could feel more comfortable with.

Residents:

- Support groups. Other individuals experience the same thing I was experiencing.

Medical Students:

- Individualized instruction especially during the clinical years. A mentorship program.
- More minority faculty, White students are able to develop close relationships with faculty members. Black role models or a mentorship program, so that Black students have someone available whom they have something in common with, someone they can feel comfortable with and develop a rapport with.
- More access to Black physicians.

6. **Support Provided by Medical School Faculty:**

Participants were also asked to address the type of support provided by medical school faculty. The following comments were provided:

Physicians:

- One physician felt faculty were very supportive except during his OB/GYN experience when he was forced to doubt himself.
- Two other physicians also felt the medical school faculty were very helpful to them.
- Another physician commented: They delivered grade work to you, you either sank or swam. Faculty in the clinical areas were more supportive, more one on one teaching (was provided) more of an exchange (existed). It was a learning experience rather than just memorization.

Residents:

- Neither resident felt their medical school faculty had been helpful to them.
- One resident commented: as a medical student I was treated as one of a hundred students. No one cared what I was going through, no one wanted to hear my problems. There was always someone there, but by the time I found them it was always too late. I didn't know who to turn to.

Medical Students:

- Only one medical student felt the medical school faculty had been helpful.
- Another expressed that although the White faculty hadn't been helpful, the minority faculty had been very helpful.
- One medical student stated faculty were not helpful to me, yet White students were able to develop close relationship with White faculty members.
- For yet another medical student the faculty weren't helpful. Sometimes I felt a part of the team during clinical rotations. The team was made up mainly of White males. It was more of a learning experience rather than a mentoring experience.

7. **Role Parents Played in the Success of the Participants:**

To better understand the influence parents have on the success of Blacks in medical school, this investigator

examined the role the participants saw their parents having in their success in medical school. The following comments were provided:

Physicians:

- One physician indicated his parents played a very significant role in his success in medical school.
- Another physician stated his parents were morally supportive.
- One physician's father died prior to his entering medical school and his mother died during his first year of medical school.

Residents:

- One resident indicated her father had not been supportive of her during medical school. He didn't want her to go to medical school. Her mother died prior to her entering medical school, but her mother taught her that she could be whatever she wanted to be.

Medical Students:

- The response from one medical student was, my parents are very supportive, they are very proud, they keep me going when other things fail.
- Another student stated: My parents gave me financial assistance to a moderate degree.
- Yet another student indicated: They taught me to overcome the obstacles.
- And one student responded: They were very supportive of me and they gave me financial support.

8. **Role of Minority Affairs Office:**

The role of the Minority Affairs Office was another issue addressed during the interviews. The following responses were provided:

- It provided a place for students to air their feelings or bounce ideas off.
- It was a nice thing, but not very helpful.
- They helped with whatever problems you had.
- They helped coordinate rotations for students. The office staff provided a supportive role and they coordinated meetings for students having problems.
- It was also a place for students to turn to for general support.
- They provided emotional support for students.
- They helped to establish Black student organizations.

- They provided money for tutorial services.

9. **Factors Contributing to the Underrepresentation of Blacks in Medicine:**

Participants were questioned about their perceptions on the underrepresentation of Blacks in the medical profession. These comments were offered:

Physicians:

- One physician's response was: Many Blacks came from poor families, the economic pressures are stronger, therefore, they seek shorter routes to gain economic success such as law and business.
- Black students don't get the nurturing they need in traditional White institutions of higher education or professional schools. Their self-confidence is not nurtured in these schools, so they lose sight of their goals and go into something else.
- Harvard, Yale and Princeton are not utopias for Black students.
- Another physicians response to the question on the underrepresentation of Blacks in medicine was: Black students tend to shy away from science during their early educational years. Many Black students take non-science programs and therefore lack a strong science background.
- The high cost of medical education, the many years of study and the educational deficits deter many Blacks from pursuing medical school, and many want to make a living quickly.
- One physician felt the underrepresentation was due to a lack of exposure. He stated, exposure initiated my aspiration to pursue medicine.
- He also stated economics is a factor, medical school is very expensive and the length of time it takes to complete medical education is a factor.

Residents:

- One resident felt poverty, the poor academic preparation of Blacks in the educational system and the lack of motivation in schools as being factors.

Medical Students:

- One medical student responded: Many people stop trying after their first rejection from medical school. They do not persist. He stated, you must have good grades, you must have perseverance. Many Black students get discouraged during their premedical program in undergraduate school. They get side-tracked and never

finish. Black students lack the guidance to get into medical school. He also stated grades don't determine the type of physician you will be. If a student has a C grade average, has the ability and works hard, their potential could be developed. He felt cutoff points should be eliminated.

- This medical student felt: Medical school admissions criteria create barriers for Blacks. She felt there is not enough support to get Black students past grammar school, high school and college. She also stated underrepresentation is a manifestation of discrimination. Many Blacks can't get past the hazing and harassment in medical school.
- And one medical student felt the underrepresentation was because of the low tracking system during early school years, the lack of a strong science background, they lack exposure to or the knowledge that medical school is an option. The high cost of medical education was a factor and the length of medical school training while other professions take a shorter time. The lack of scholarship funds available to finance medical education was also cited as a factor.

10. <u>The Role of Blacks in Medicine:</u>

The role of Blacks in medicine was another topic discussed during the interviews and the following comments were expressed by the study participants.

<u>Physicians</u>:

- The role of Blacks in medicine has not been raised by a recognizable voice. The National Medical Association is not well-supported, but it should be.
- It shouldn't be any different than any other physician. Black physicians have an advantage with Black patients. They have the ability to establish a rapport with them. They should encourage interested Blacks to go into medicine.
- First, to be a good doctor. They have the responsibility of helping people, trying to make a difference being role models and of shaping medical policies. There are a lot of disease processes, many of them affected by social factors. It's hard to practice pure medicine and ignore the social factors. I think Black physicians must begin to play a role in the social aspects of medicine as opposed to just practicing pure medicine. It gives me great pleasure to see the role Dr. Louis Sullivan plays in this area such as the long stand he has taken against the tobacco companies.

Residents:

- Black physicians must be role models. They must teach children that they can be successful and have a good life.

Medical Students:

- Black physicians should serve in positions ranging from clinicians, to academicians to researchers. They should serve as political agents. They have a responsibility to give something back to the Black community.
- They should go back into the minority community to promote a higher rate of healing.
- Black physicians are needed who are aware of the cultural differences to help educate Blacks to preventative care. Black physicians are needed in all aspects of the medical profession such as academic medicine and research. We need Black physicians to serve as mentors. Increasing the number of Black physicians will impact on the poor health status of Blacks. Black patients will be more inclined to listen to them and they will treat Black patients with greater respect.

11. **Role of Physicians/Residents in Bringing Equity into Medicine**:

Physicians:

- Respectable citizens in the community and church. To seek out inner city schools to help children. Impress upon students they don't have to attend Ivy League schools to become physicians.
- Has no personal mission, but holds a warmth and understanding for any Black medical student. Will encourage any Black person interested in medicine to pursue it.
- To be the best role model and the best teacher to Black and White medical students. Would like to see more Black medical schools such as Meharry, Morehouse, Howard and Charles Drew, to allow more options for Black students to train at. But, he is not sure that he will have a direct hand in this process.

Residents:

- Being a role model, bringing the reality of medical education to students. Is not concerned about increasing the number of Black physicians, but wants the practice of medicine to be available to Blacks.

CHAPTER V

DISCUSSION AND SUMMARY OF STUDY FINDINGS

The goal of this study was to examine and gain an understanding of the factors leading to successful admission, retention and graduation from medical school, from a limited number of well-informed individuals experienced in the medical school process. The study did not use random sampling and was confined to ten individuals who may or may not be representative or reflective of the Black medical student or Black physician population. However, this investigator contends the information gleaned from this selected case study in conjunction with the extensive literature search has the potential of providing valid and useful information.

The results of this study are based on data collected from the study participants. The study revealed, although all participants were residing in Massachusetts at the time the study was conducted, they were not all born and raised in Massachusetts. They were from Chicago, Massachusetts, Mississippi, New York and one participant was from the Caribbean.

A large proportion, or 60 percent, of the participants were males and 40 percent were females (see Table 1). The increase in the number of Black females entering and graduating from medical school is reflective of the strides women are making in medicine. Medicine has historically been a male profession. Hilliard (1983) indicates the number of females entering the medical profession has

changed dramatically over the past three decades and the change is even more significant with regard to Black females. Minority students in Medical Education: Facts and Figures V (1989) also reflects on these changes. The number of underrepresented minority females entering medical school in 1971 was 21 percent of all minorities, but had grown to 52 percent enrolled in the first year medical school class in 1988. Minorities and Women in the Health Field (1987) provides data specific to Black females; however, the data are not as current. The report also shows minority women have increased their representation in medical school more rapidly than all women or minority males. Women represented 10.9 percent of the total medical school enrollment in 1971-72; 27.8 percent in 1979-80 and 34.2 percent in 1985-86. The data on Black females, for example, reveal Black women represented 22.7 percent of Black medical students in 1971-72; 44.7 percent in 1979-80 and 52.1 percent of Black medical students in 1985-86.

A majority of the participants in this study indicated they had some religious affiliation during their childhood, and 70 percent stated that religion played a very significant role in their lives. Religion and a belief in God was also pointed out by a majority of the participants as being a significant factor contributing to their success in medical school (see Table 1). This study finding of the role of religion as a critical element contributing to the successful completion of higher education was also addressed in the literature reviewed. Brown (1990) points out

religion serves as an anchor and stabilizer for Black students suffering from feelings of isolation and alienation and who are considering dropping out of school. Hughes (1987) found that the spiritual strength of Black students in both traditionally Black universities and predominantly White universities played a significant role in their persistence, retention and success. Hughes contends spirituality is deeply rooted in the Afrocentric culture and Black people call on this strength and belief when going through difficulties and oppressive conditions.

In this study with respect to parents' education, an equal percent of both fathers and mothers had a college or graduates degree (30 percent), the remaining parents had either a grammar or high school education (see Table 1). The low educational attainment of the parents of the participants is comparative to the educational attainment of Black Americans prior to 1960. Blacks have made strides over the past twenty years. The educational level for the average Black adult in 1960 was only an 8th grade education; by 1986 the average Black adult was graduating from high school (Education That Works: An Action Plan for the Education of Minorities, 1990).

Table 1 reveals that 30 percent of the participants reported their father's occupation was professional. However, 30 percent also reported their father was unskilled and 10 percent were skilled. Twenty percent reported their father held administrative or managerial positions, and 10

percent indicated their father was self-employed as a farmer.

Table 1 also reveals that 20 percent of the participants mothers were professional. However, the majority of the participants' mothers held skilled and unskilled positions (30 percent each). Ten percent indicated their mother was self-employed as a farmer and 10 percent lacked an occupation (deceased). These data reveal that more fathers in this study held either professional or administrative/managerial positions. But, on the other hand, more mothers held skilled positions than did fathers.

The family income of 30 percent of the participants was less than $10,000 per year. Another 30 percent of the participants income ranged between $11,000 and $20,000 per year (see Table 1). Ten percent earned from $21,000 to $30,000 per year. However, 10 percent earned between $51,000 to $60,000, another 10 percent earned between $61,000 to $70,000 and 10 percent earned above $71,000. The parental income of this study group is consistent with the data presented by Minority Students in Medical Education: Facts and Figures V (1989) which reveals 16.1 percent of the Black students accepted to medical school in 1988 parental income was $14,999 or less, 17.2 percent parental income was between $15,000 to $29,999, 34 percent of the parental income was $30,000 or more and the remaining parents income was unknown. According to Education That Works: An Action Plan for the Education of Minorities (1990), Blacks have the highest poverty rate of any race in America: it was 31.6

percent in 1988, which represents almost two and a half times the national average of 13.1 percent. This data show 9.43 million Black Americans had poverty level incomes in 1988, and 42.2 percent of all Black children, or twice the poverty rate of all American children, were living in poverty that year. The unemployment rate in 1989 was twice the national level (or 11.8 percent) and the unemployment rate for Black teenagers was even higher at 34.2 percent. The data further indicate Black youth with high school diplomas were less likely to obtain employment than White high school dropouts. These socioeconomic conditions become even more significant when looking at the soaring cost of medical education in conjunction with the shrinking funds available to Black youth interested in pursuing a medical education or currently seeking a medical education. Many Black youth are unable to count on parental support to help them pay for undergraduate or graduate education. These income levels were also pointed out in One-Third of a Nation. A Report of the Commission on Minority Participation in Education and American Life (1988).

Table 1 finally addresses the cost of the participants medical education and medical indebtedness. This table shows 20 percent of the participants' medical education cost between $20,000 and $50,000, 20 percent of the participants medical education cost was from $60,000 to $70,000 and another 20 percent of the participants medical education cost ranged between $80,000 and $95,000. The majority of the participants' medical education cost ranged from

$100,000 to $135,000. One participant did not reveal the actual cost of medical school, but stated medical education costs too much.

The participants also provided information regarding their expected or actual medical education debt. Ten percent had debts between $7,000-$10,000, 30 percent of the participants' debt ranged between $20,000-$50,000, 10 percent of the participants' debt ranged between $80,000 and $95,000, 20 percent of the participants' debt ranged from $100,000-$135,000 and 30 percent of the participants' debt ranged from $140,000 to $165,000.

Jolly, Taksel and Beran (1988) found that the average medical school indebtedness for 1987 graduates was $35,621 and 17 percent of the graduates had debts which were over $50,000. Yet, the average medical indebtedness for the participants in this study was $92,333 which is much higher than the average medical school indebtedness for all medical school graduates. However, the authors Jolly, Taksel and Beran conclude that minority, female or older medical students are more likely to have higher indebtedness than the average medical school graduate.

Table 1

Sociodemographic Characteristics of Participants

Characteristics	RESPONDENTS			
	Physician N=4	Resident N=2	Medical Student N=4	Percent
Sex Distribution				
Male	4		2	60
Female		2	2	40
Age Distribution				
24-25			2	20
26			2	20
27-30		1		10
31-35	2			20
36-40	1			10
41-45	1	1		20
Marital Status				
Single	1	1	4	60
Married	3			30
Separated				
Divorced		1		10
Race				
Black	3		3	60
Afro-American	1	2	1	40

Continued next page

Table 1

Characteristics	RESPONDENTS			
	Physician N=4	Resident N=2	Medical Student N=4	Percent
Geographic Locations Where Respondents Grew Up				
A. A Rural Area (farm, country)				
- Mainly Black	2			20
B. A Small City or Town Less Than 50,000				
- Mainly Black				
- Racially Mixed (community			1	10
mainly Black)			1	10
- Mainly White				
C. A Large Urban City over 250,000				
- Mainly Black				
- Racially Mixed (community		1		10
mainly Black)	2	1	1	40
- Mainly White				
D. A Suburban Area from 50-250,000				
- Mainly Black				
- Racially Mixed			1	10
- Mainly White				

Continued next page

Table 1

Characteristics	RESPONDENTS			
	Physician N=4	Resident N=2	Medical Student N=4	Percent
Classification				
Freshman				
Sophomore				
Junior			3	30
Senior			1	10
Resident (M.D.)		2		20
Physician	4			40
Religion				
Protestant	3	1	3	70
Catholic	1			10
Jewish				
None		1		10
Other			1	10
Religious Significance				
Very Much	2	2	3	70
Some	1		1	20
A Little	1			10
None				

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Table 1

Characteristics	RESPONDENTS			
	Physician N=4	Resident N=2	Medical Student N=4	Percent
Father's Education				
Grammar School	4			40
High School Graduate		1	2	30
College Graduate			1	10
Graduate Degree/ Professional Degree		1	1	20
Mother's Education				
Grammar School	3			30
High School Graduate	1	1	1	30
Some College			1	10
College Graduate		1	1	20
Graduate Degree/ Professional Degree			1	10
Father's Occupation				
Professional (Lawyer, Social Worker)	1	1	1	30
Administrator/ Manager (Principal, Hospital)	1		1	20
Unskilled Laborer	1	1	1	30
Farmer/Self -Employed	1			10
Skilled Laborer			1	10

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Table 1

Characteristics	RESPONDENTS			Percent
	Physician N=4	Resident N=2	Medical Student N=4	
Mother's Occupation				
Professional (Teacher, Systems Analyst)		1	1	20
Skilled Laborer**			3	30
Unskilled Laborer*	3			30
Farmer/Self-Employed	1			10
Deceased		1		10
Family Income				
Under $10,000	2	1		30
$11,000 - $20,000	2		1	30
$21,000 - $30,000			1	10
$31,000 - $40,000				
$41,000 - $50,000				
$51,000 - $60,000			1	10
$61,000 - $70,000			1	10
$71,000 or Above		1		10

*Unskilled laborer included housewife, domestic work.
**Skilled laborer included municipal worker, secretary.

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Table 1

Characteristics	RESPONDENTS			
	Physician N=4	Resident N=2	Medical Student N=4	Percent
Total Cost of Medical Education				
$ 20,000 - $ 50,000	2			20
$ 60,000 - $ 70,000		1	1	20
$ 80,000 - $ 95,000	1		1	20
$100,000 - $135,000		1	2	30
Too Much	1			10
Graduation Debt/ Expected Graduation Debt				
$ 7,000 - $ 10,000	1			10
$ 20,000 - $ 50,000	2		1	30
$ 60,000 - $ 70,000				
$ 80,000 - $ 95,000	1			10
$100,000 - $135,000		1	1	20
$140,000 - $165,000		1	2	30

Another finding of the study revealed the majority of the participants did not select their type of practice or practice location based on their medical school indebtedness (see Table 2).

Table 2

Medical School Indebtedness

Did Medical School Indebtedness Influence	RESPONDENTS Physicians N=4	Residents N=2	Percent
Type of Practice			
Yes	1		17
No	3	1	67
No Response		1	17
Practice Location			
Yes			
No	4	1	83
No Response		1	17

The participants indicated they were able to finance their medical education from fellowships, scholarships, loans, national health service corps, work-study and minimally from parental support (see Figure 5.1).

- Fellowships/research fellowships
- Scholarships
- Loans:
  - Health Education Assistance Loan (HEAL) Program
  - Health Professions Student Loan (HPSL)
  - Guaranteed Student Loan (GSL)
  - Auxiliary Loans to Assist Students (ALAS)
  - MD Student Loan Program
  - PLUS Loan Program
  - Medical School Institutional Loans
- National Health Service Corps
- Work-study (10-15 hours per week)
- Parental support

Figure 5.1 Types of Financial Assistance Available to Study Participants

A. Factors Surrounding and Influencing the Decision to Pursue a Medical Education

Table 3 reveals that an equal number of participants had family members in the health field or medical profession (50 percent) and 50 percent had no family members in the health field or medical profession. However, only 10 percent of the participants had been consciously influenced by a family member in the health fields to pursue a medical education. Thirty percent of the participants had been influenced to pursue medicine by a physician outside of their family. None of the participants' parents were physicians.

A study was conducted by Gough and Hall (1977) which compared medical students from medical and non-medical families. These authors found approximately 16 percent of all students entering medical schools had a parent who was a physician. These students have an advantage in regards to family background, expectations, and knowledge about career options, they were younger on the average and more had attended prestigious undergraduate colleges. This investigator saw the exposure to the medical profession at an early age, having parental role models in the medical profession, having a large network of individuals within the medical profession to assist the student throughout their educational pursuit as being advantages for these students. However, these authors found that there was no distinguishable difference between students from medical or

non-medical families with regards to intellectual ability or academic performance.

The literature also pointed out that it was significant for potential medical school applicants to decide early whether they are going to attend medical school. This allows them the opportunity to take the appropriate required premedical school courses while attending undergraduate school. Table 3 of this study revealed 30 percent of the participants decided to become a physician between the ages of 10 to 13, 30 percent made the decision between the ages of 14 to 16 and a majority of the participants or 40 percent made the decision to become a physician between ages 17 to 20.

Sleeth and Mishell (1977) report the most successful Black medical applicants made the decision to become a physician early. These authors believe many Black undergraduates are poorly prepared for premedical courses; therefore, they avoid them. However, if effective programs are developed for Black high school students, these programs can help Black students overcome their academic deficiencies. Sleeth and Mishell conclude programs designed to help strengthen the academic preparation of Black students in conjunction with support programs in the undergraduates level will help to ensure equity for Blacks. The Johnson Report (1987) also acknowledges the significance of early intervention or special programs geared towards strengthening the academic competitiveness and performance of Black youth.

Table 3

Factors Surrounding and Influencing the Decision to Pursue a Medical Education

	RESPONDENTS			
	Physician N=4	Resident N=2	Medical Student N=4	Percent
Family Members in Medicine/ Health Field				
Yes	1	1	3	50
No	3	1	1	50
Did They Influence Your Decision To Be a Physician				
Yes	1			10
No		1	3	40
Not Applicable	3	1	1	50
Did an Outside Physician Influence Your Decision				
Yes	1	1	1	30
No	3	1	3	70
Age Decided to Become a Physician				
10-13 Years	1		2	30
14-16 Years		1	2	30
17-20 Years	3	1		40

B. Obstacles to Medical School Admission, Retention and Graduation for Blacks'

The literature reviewed addresses academic deprivation as one of the factors relating to the underrepresentation of Blacks in medical school. As previously indicated Blacks have a difficult time competing academically with White students as a result of the many years of educational deprivation they have encountered. Additionally the literature cited Black students being arbitrarily placed in low track classes, as well as the inadequate science and mathematic preparation of Blacks as also contributing to Blacks being academically unprepared to enter medical school. Therefore, this investigator felt the necessity of addressing the academic preparation of the participants in this study. It was hoped that this information would not only verify the literature findings, but also provide some insight as to how these selected individuals were able to succeed in medical school in spite of the poor academic preparation of many Blacks.

Table 4 provides an overview of the secondary school preparation of the participants. A large proportion of the participants, 50 percent, attended predominantly White high schools, 40 percent attended predominantly Black schools and 10 percent attended racially mixed high schools. Eighty percent of the participants majored in college preparatory programs during high school and only 20 percent of the participants lacked a strong science and mathematic program in high school (see Table 4). Eighty percent of the

participants felt academically prepared for college after completing their high school education and 20 percent did not feel academically prepared for college. One of the participants who responded no to this question indicated the only mathematics course taken during high school was algebra I, because this was the only mathematic course available. The other participant who responded no to this question stated the transition from high school to college was difficult mainly because of having to work to pay for school. The majority of participants in this study seemed to be well prepared academically. Additionally, a majority of the participants in this study had strong science and mathematic backgrounds. These findings are inconsistent with the literature reviewed which indicates Blacks are academically unprepared to enter medical school. However, these findings are consistent with the characteristics of candidates who are generally accepted into medical schools (Haynes, 1984).

Authors such as Epps (1989), The Johnson Report (1987), and Joyner (1988) address the need for guidance counselors to encourage students to consider medical education. These authors see the lack of counseling or poor guidance counseling as contributing to the underrepresentation of Blacks in medical education. Table 4 in this study verifies that inadequate counseling exists in the secondary school system. It shows 50 percent of the participants had some counseling, 20 percent had a little counseling and 30 percent had no assistance or encouragement from a guidance

counselor during high school and 70 percent lacked any assistance in getting into college. Additionally, some of the participants stated that they were discouraged from seeking a medical education and were presented with other options. However, these individuals were very determined to achieve their goal and to succeed in their medical pursuit, so they did not allow this deterrent to prevent them from achieving their goals. Both participants are now physicians and they are working in residency programs.

Table 4

Academic Preparation

Secondary Education	RESPONDENTS			
	Physician N=4	Resident N=2	Medical Student N=4	Percent
High School Attended				
- Mainly Black	2		2	40
- Mainly White	2	2	1	50
- Racially Mixed			1	10
- Unknown				
High School Major				
College Preparatory	1		1	20
Advanced College Track			1	10
Science, Psychology			1	10
Science, Mathematics		2	1	30
Liberal Arts	1			10
Special Mathematics	1			10
Business	1			10
High School Mathematics Courses				
Algebra	1			10
Geometry, Algebra	1			10
Geometry, Algebra I & II, Precalculus		1	2	30
Geometry, Algebra I & II, Trigonometry, Calculus	2	1	2	50

Continued next page

Table 4

Secondary Education	RESPONDENTS			
	Physician N=4	Resident N=2	Medical Student N=4	Percent
High School Science Courses				
Biology	1			10
Biology, Chemistry	1			10
Biology, Chemistry, Physics	1	1	1	30
Biology, Chemistry, Physics, Earth Sciences	1			10
Biology, Physical Science, Chemistry, Physics			1	10
Earth Sciences, Biology, Honor Biology, Chemistry, Honor Chemistry, Physics, Advanced Physics			1	10
Biology, Microbiology, Genetics, Physics, Anatomy, Physiology			1	10
Earth Sciences, Biochemistry		1		10
Academically Prepared for College				
Yes	3	1	4	80
No	1	1		20

Continued next page

Table 4

Guidance Counseling Received in High School				
- A Great Deal				
- Some	2		3	50
- A Little	1		1	20
- None	1	2		30
- Assistance Getting into College				
- Yes		1	2	30
- No	4	1	2	70

As previously mentioned, students who make the decision to become a physician by the time they complete high school are in a better position to take the required premedical school curriculum during their undergraduate years. Black students have a better chance of successfully completing medical school if the following situations exist: (1) the student has a strong mathematic and science background in conjunction with proper advising, (2) minority support programs are available during college, (3) the student has the opportunity to work or volunteer in a health care agency or institution, and (4) the student enrolls in a MCAT preparatory program. Table 5 indicates the majority of the study participants completed their premedical school requirements during undergraduate school training. This table shows that a majority of the participants in this study received A and B grades in biology I and II, only 10 percent or one participant received a C grade. The majority of the participants also received A and B grades in chemistry I and II, with 10 percent receiving a C grade, and 10 percent received a pass grade. These findings were also consistent for the grades received by participants in organic chemistry I and II and for physics I and II. The findings of this study are consistent with the findings in a study conducted by Haynes (1984). The study done by Haynes revealed the students accepted to medical school received relatively more A and B grades in the premedical school science courses while the rejected applicants received

relatively more C or lower grades in the premedical school science courses.

Elliott (1985) indicated that the average science GPA for Black applicants admitted to medical school was 3.22. Studies conducted by Gordon (1979) and Johnson, Lloyd, Jones and Anderson (1986) were also reviewed. These studies revealed the overall science GPA for 1977-78 medical school applicants was 3.23. The latter study looked at medical school applicants at Howard University College of Medicine in 1978 and 79 and found the average science GPA was 2.85 and 3.21 in non-science courses.

The findings from the study conducted by this investigator did not concur with the findings of the aforementioned authors. The average GPA for participants in this study was 3.6. This GPA was not reflective of a science or non-science GPA, but a combination of all undergraduate studies. However, a factor which must be taken into consideration is two of the participants GPA's were based on a 5.0 grading system rather than a 4.0 grading system. This investigator believes this factor could account for the higher GPA found in this study.

The principal thrust of this study was to examine factors contributing to the successful admission, retention and graduation of Blacks from medical school. Additionally, as previously mentioned in Chapter I, this study was concerned with the question of whether or not the usual and traditional criteria for judging admission to medical school in fact provides the best predictions of success for Black

students. Authors such as Vega (1988), Evans, Jones, Wortman and Jackson (1975), Sarnacki (1982), Joyner (1988), Sam (1989), Waldman (1977), Johnson, Lloyd, Jones and Anderson (1986) and The Johnson Report (1987) all address the traditional medical school admission criteria and the implications of these criteria on Black medical school applicants.

The traditional medical school admission criteria used to evaluate candidates for admission to medical school includes, but is not limited to, the MCAT, college GPA, quality of the undergraduate college attended, letters of recommendation and the interview reports. However, Sam (1989), Joyner (1988), Vega (1988) and The Johnson Report (1987), all concur that the single most significant criteria used by medical schools is the MCAT. The significance placed on the MCAT has the effect of reducing the number of Blacks entering medical school because many Black applicants receive lower scores on the MCAT than do majority applicants. Yet, both The Johnson Report (1987) and Johnson, Lloyd, Jones and Anderson (1986) suggests MCAT scores alone are inadequate to predict success in medical school. Further, it was noted that to date there is no quantitative or qualitative tool available to predict who will be a good doctor. The MCAT primarily predicts the student's performance during the first year of medical school.

Table 5

Premedical School Requirements

Undergraduate Education	RESPONDENTS			
	Physician N=4	Resident N=2	Medical Student N=4	Percent
Undergraduate Major				
Biomedical	1			10
Chemistry			1	10
Chemical Engineering			1	10
Biology, Psychology		1	1	20
Pharmacology	1			10
Premedicine	1			10
Science	1	1	1	30
Undergraduate Degree				
Biology/Chemistry	2			20
Biology/Psychology		1		10
Chemistry			1	10
Chemical Engineering			1	10
Life Sciences	1			10
Natural Science		1	1	20
Premedical Science			1	10
Pharmaceutical Science	1			10

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Table 5

Undergraduate Education	RESPONDENTS			
	Physician N=4	Resident N=2	Medical Student N=4	Percent
Biology I, II				
Course Grade A	2		1	30
Course Grade B	2	2	2	60
Course Grade C			1	10
Course Grade D and F				
Course Grade Pass				
Chemistry I, II				
Course Grade A	2	1	1	40
Course Grade B	2		2	40
Course Grade C		1		10
Course Grade D and F				
Course Grade Pass			1	10
Organic Chemistry I, II				
Course Grade A	2	1	1	40
Course Grade B	2		2	40
Course Grade C		1		10
Course Grade D and F				
Course Grade Pass			1	10

Continued next page

Table 5

Undergraduate Education	RESPONDENTS			
	Physician N=4	Resident N=2	Medical Student N=4	Percent
Physics I, II				
Course Grade A	1		2	30
Course Grade B	3	1	1	50
Course Grade C		1		10
Course Grade D and F				
Course Grade Pass			1	10
Grade Point Average				
4.6*			1	10
4.3*	1			10
3.8	1			10
3.7	1			10
3.5			1	10
3.4	1			10
3.2		1	1	20
2.73			1	10
Not Applicable - GPA Not Used		1		10

Most GPA based on 4.0 scale.
*Based on 5.0 scale.

Continued next page

This investigator could not compare the findings in the literature because 40 percent of the participants could not remember their MCAT scores, 10 percent or one participant was not required to take the MCAT's prior to being accepted into medical school. This participant entered medical through an early selection medical school program. After this participant entered medical school the MCAT was taken, but used only for statistical purposes. Therefore, the MCAT score was not known. Although 50 percent of the participants provided MCAT scores, there was no mechanism in place to verify the scores given (see Table 6).

Table 6 also included data on the participants' feelings on the MCAT. An equal number of participants felt the MCAT was reflective of their academic ability as did not. Thirty percent took the MCAT's more than once, and 30 percent had taken MCAT preparatory courses with only 20 percent finding the MCAT preparation course to be helpful. Sam (1989) and The Johnson Report (1987) report on the value of taking MCAT preparatory courses. These authors indicate the MCAT preparatory courses will enhance the potential candidates' scores.

The final data presented in Table 6 indicated 80 percent of the participants were accepted to medical school on their first try. Ten percent, or one of the participants, reported the lack of acceptance on the first try was unrelated to academic factors, and one participant took additional courses, reapplied, and was accepted to medical school on the second try.

Table 6

Premedical School Requirements

MCAT's

Undergraduate Education	RESPONDENTS					
	Physician N=4		Resident N=2		Medical Student N=4	
MCAT Scores						
Science Knowledge						
- Biology	9		6	10	13	4
- Chemistry	7		7	10	13	7
- Physics	8		8	12	10	9
*Score Unknown	1	1 1				1 1
Science Problems Skills Analysis						
- Science Problems	6		7	8	12	10
- Reading	6		7	8	8	10
- Quantitative	2		7	8	9	10

*Four respondents could not remember MCAT score, but indicated that their scores were high or above average. One respondent was not required to take the MCAT's - early admission - took MCAT's after admitted for statistical purposes only.

Continued next page

Table 6

	RESPONDENTS			
	Physician N=4	Resident N=2	Medical Student N=4	Percent
Felt MCAT's reflective of True Ability				
Yes	2	2	1	50
No	2		3	50
Took MCAT's More Than Once				
Yes	1	1	1	30
No	3	1	3	70
Took MCAT Preparatory Course				
Yes		2	1	30
No	4		3	70
If Yes, was it helpful?				
Yes		1	1	20
No		1		10
Not Applicable	4		3	70
Accepted to Medical School On First Try				
Yes	3	1	4	80
No	1*	1		20

*Non-academic problem.

The relationship between Black medical students and medical school faculty is mentioned in Table 7. In terms of grading, 10 percent of the participants felt the faculty was always fair in grading, 60 percent or a majority of the participants felt that faculty were mostly fair in grading them and only 10 percent felt that faculty was rarely fair in terms of grading them. Fleming (1981) reflected on the significance of faculty-student relations, she pointed out that faculty play a vital role in the higher educational setting. Fleming further notes although faculty-student relationships are important, frequently Black students have a difficult time forming close relationships with faculty. Hirschorn (1988) found medical school faculty had a negative perception of Black medical students because some of them had to repeat the first year of medical school. She points out medical school faculty are unlikely to extend themselves to help minority students and they do not have high expectations of minority students. A majority of the participants commented on their inability to form close relationships with medical school faculty. Many participants expressed feelings of isolation during their clinical rotations. They also expressed feelings of being excluded from the team and experiencing either overt or covert racism during their medical school training. Wiley (1990) suggests although inadequate funds is a key factor in the underrepresentation of Blacks in medicine, the lack of encouragement, insensitivity and hostility that Black medical students experience during their medical school

training, has also impacted on the underrepresentation of Blacks in medical education.

Griffith and Delgado (1979) further elaborate on professional socialization of Blacks during residency training. These authors report Black residents not only face the usual difficulties experienced during medical training, but they also face additional difficulties because they are Black. Black residents, unless numerous in number, find themselves isolated rather than integrated into the system. The consequence of the paucity of Black medical school faculty is the higher authority over the Black resident most likely will be White; therefore, the performance standards will probably be reflective of a White middle class perspective. These authors further note definitive standards of dress, speech, manners and other behaviors will be expected of the Black resident. However, these performance standards are neither explicitly expressed or clearly defined to the Black resident as a result of institutionalized racism. The Black resident, on the other hand, becomes uneasy and senses that something is wrong, but is unable to pinpoint the problem. The resident's attempt to pinpoint the problem in turn is perceived by the supervising faculty or clinicians as being a challenge or threatening. This vicious cycle is perpetuated and the resident in turn feels alienated by this situation. These authors conclude by stating:

> The ultimate example of any program's arrogance is its wish, whether covert or expressed, to destroy the identity of the Black physician. Rather,

> those responsible for training programs should strive to design socialization routes which recognize the racial diversity of the body of trainees and to promote the learning of behaviors and values which all affirm and reflect equally a reverence for Black and White cultures (Griffith and Delgado, 1979, p. 476).

The aforementioned authors summarize the experiences expressed by several of the participants in this study, especially the case presentation of Dr. Muriel Simms. These authors have provided a clearer understanding of the dynamics which many Black medical students and residents experience. They also provide some assurance to the individuals to let them know they are okay; it is the system of racism that is clearly the problem.

Upon returning to Table 7, 40 percent of the participants had some exposure to Black faculty in their science curriculum. However, they indicated that the Black faculty member usually only presented one segment of the course. The remainder of the course was taught by White faculty. The majority of the participants (or 80 percent) had exposure to Black faculty during their clinical experience. This finding concurs with the literature. Minority Students in Medical Education: Facts and Figures V (1989) points out the paucity of Black medical school faculty at all U.S. medical schools. There were only 238 or 3.9 percent Black medical school faculty. More significant is the finding of 192 or 81 percent of all Black faculty are employed by Howard, Meharry and Morehouse medical schools. These medical schools are predominantly or traditionally Black medical schools. The remaining 46 or 19 percent of

Black faculty are distributed amongst 124 traditionally White medical schools. Therefore, a disproportionately small number of Black faculty are available to serve as role models or mentors to Black medical students or residents. The problem of inadequate numbers of Black faculty in traditional White medical schools is also compounded by the fact many Black students and residents, represent first-generation doctors; therefore, they did not have the networks or familial knowledge that many White students and residents had available to them (Wiley, 1990). This finding makes it essential for medical schools, minority affairs offices or other relevant associations to establish programs to increase the number of Black faculty, role models or mentors available or accessible to Black medical students and residents.

Table 7

Medical School Faculty

	RESPONDENTS			
	Physician N=4	Resident N=2	Medical Student N=4	Percent
Fair in Grading				
- Always Fair	1			10
- Mostly Fair	2	1	3	60
- Rarely Fair		1		10
- No Response	1		1	20
Black Faculty in Medical School				
Science				
- Yes		2	2	40
- No	4		2	60
Clinical				
- Yes	3	2	3	80
- No	1		1	20
Were they helpful?				
- Yes	2	2	1	50
- No	1		2	30
- Not Applicable	1		1	20
Role Models/Mentors				
- Yes	1	2	1	40
- No	2		2	40
- Not Applicable	1		1	20

C. Factors Contributing to the Success of Blacks in Medical School

Although MCAT scores and GPA's have been determined to be two significant criteria used by admissions committees when evaluating medical school candidates, many participants in this study concurred with the idea that non-cognitive factors were also valuable when predicting success of Black medical students. Non-cognitive factors have been viewed in the literature as being predictive of success when reviewing Black or other minority applicants.

> There were, and to some extent still are, incredible barriers. In addition to the usual pressures of medical school, the minority student must be able to handle cultural biases; that is, he must possess a sense of internal control and the determination to press forward in spite of differences and disparities. Moreover, he must accept the new culture of the majority and learn how to blend it with his own. This is an arduous task since he does not have the standard credentials - the multifaceted academic and social exposures which his fellow students take for granted. Only a student of extraordinary stamina can deal with these complex and sensitive issues - a student who manifests an unusual degree of self-esteem and an unyielding determination to succeed. The minority student has done this and therefore proven the concept that non-cognitive skills are as important as cognitive ones in predicting his performance (Watts, 1983, p. 248).

For example, an evaluation of the Simulated Minority Admissions Exercise (SMAE) found non-cognitive variables such as positive self-concept, realistic self-appraisal, understanding and dealing with racism, long-range goals, availability of strong support person, leadership, community service, and medical interests had validity in predicting minority student success.

The SMAE is a training program which was established to teach medical school admission committee members how to detect specific non-cognitive factors from the medical school applicants file and during the interview process. Minority applicants selected through this process are more likely to successfully complete medical school (Sedlacek and Prieto, 1982).

The Johnson Report (1987) also report despite the significance of the MCAT, many admissions committees utilize non-cognitive factors to determine the success of minority applicants. This report reiterated many of the aforementioned non-cognitive variables addressed by Sedlacek and Prieto.

Research has determined that on the whole Black and other minority candidates receive lower MCAT scores and lower GPA's than majority applicants. Therefore, if medical school admissions committees place the emphasis on these two admission criteria they will eliminate many qualified Black applicants and parity will not be achieved. Black students have done well in their preclinical years of medical school regardless of the lower scores obtained on their MCAT's and their GPA's. This finding has prompted researchers and educators to evaluate the significance of non-cognitive or non-traditional criteria such as motivation, self-image and the competitiveness of their undergraduate school (Elliott, 1985; Evans, Jones, Wortman and Jackson, 1975; Rhoads, Gallemore, Gianturco and Osterhout, 1974; Vega, 1988; and Johnson, Lloyd, Jones and Anderson, 1986).

The list of non-cognitive variables or factors provided by the participants in the present study also supports the belief that non-cognitive factors are significant predictions of success for Black students. However, the participants in this study did not negate the significance of a strong science and mathematical background, having good writing and reading skills, or the need for a good academic preparation prior to entering college (see Figure 5.2).

Belief in God, prayer	Patience
Good study habits	Presentation of self
Self-confidence	Assertiveness
Belief in self	Love oneself
Having innerworth	Preseverance
Determination	Highly motivated
Empathy	Endurance
Compassion	Self-discipline
Self-drive	Sticktuitiveness
Willingness to work hard, long hours	
Ability to accept criticism	
Being able to identify when one needs help and asking for help	
Ability to work under pressure/difficult situations	
Developing leadership skills during undergraduate school.	

Figure 5.2 Characteristics which Contribute to the Success of Blacks in Medical School

This investigator must again reflect on the question this study was concerned with. Do the usual and traditional criteria for judging admissions to medical school, principally traditional academic ones, in fact provide the best predictors of success for Black students? Based on the findings of this study, as well as the literature reviewed, this investigator strongly suggests that parity will not be achieved in medical education for Blacks if the traditional medical school admission criteria are used in isolation. The many years of injustice practiced in this country and the poor academic preparation of Black students have resulted in Black applicants' receiving lower scores on the MCAT as well as on their GPA's from undergraduate colleges or universities. Additionally, research has shown that Blacks' have succeeded in medical school despite the low scores obtained on the examinations or other traditional criteria heavily weighted by many medical schools. This finding of successful completion of medical school despite Blacks obtaining lower scores, or their not meeting the traditional criteria, leads this investigator to believe that there are other more significant factors or driving forces at work which seem to be impacting on the success of Black students. Therefore, this investigator believes that it is essential to develop and/or reinforce the use of non-cognitive or non-traditional criteria when evaluating potential Black candidates for medical school.

The study participants saw the following factors as contributing to the success of Blacks in medical education (Figure 5.3).

Strong background/foundation in science
Strong mathematic foundation
Good writing and reading skills
Good academic preparation prior to college
Study groups
Support Black students give one another
Medical student/peer support
Participation in extracurricular activities in undergraduate school
Community service
Having access to Black physicians/mentorship programs
Parental teachings
Church support
Strong family support

Figure 5.3 Factors Contributing to the Success of Blacks in Medical School

Table 8 shows that a majority, or 80 percent, of the medical schools attended by the participants in this study provided Minority Affairs Offices. Although only a small percent of the participants, 30 percent, reported they used the services provided by the Minority Affairs Office, a majority of the participants felt this support system was valuable. They expressed a comfort in knowing that the system was there and available if they needed it. Two participants voiced a concern for the powerlessness of the Minority Affairs Office and for the inadequate funds the Minority Affairs Office has available to provide for important support systems. One participant also voiced a concern because the services provided by the Minority Affairs Office were directed towards the younger student and nothing was provided for the older student returning to the academic environment.

The only participants who stated they had utilized the services of the Minority Affairs Office were the medical students. This investigator was unable to determine the reason for this finding. However, the literature reported the necessity for Minority Affairs Offices as well as strong support programs in medical school if the medical school is committed to graduating their Black medical students.

Table 8

Medical School Provided Minority Affairs Office

	RESPONDENTS			
	Physician N=4	Resident N=2	Medical Student N=4	Percent
Was Minority Affairs Office Provided?				
Yes	2	2	4	80
No	1			10
No Response	1			10
Did/Do you Utilize These Services?				
Yes			3	30
No	1		1	20
No Response	3	2		50

Figures 5.4 and 5.5 indicate a majority of the participants are practicing or plan to practice in large innercity areas. This finding supports the literature review done in Chapter II, which indicates a majority of Black physicians return to the community after completing their medical school training. They serve the poor, the uninsured, and the minority populations.

Another finding in these figures is the commitment of the participants to get involved in political and social change which strongly impacts on the health status of Blacks. These findings will be significant for Black physicians working towards improving the health status of Black people.

Pediatrics.

Academic medicine, research and eventually emergency medicine - will practice in a small or large inner city/ghetto area.

Psychiatry, a physician seeking political and social change in medicine through public health - will practice in a large inner city area.

Emergency medicine, a physician seeking political and social change in medicine - will practice in a large inner city area.

Figure 5.4 Types of Practices Medical Students will Select Upon Completion of Medical School

Pulmonary, critical care - is practicing in a large inner city area.

Orthopedic surgeon - is practicing in a large inner city area.

Pulmonary, academic medicine - is practicing in a large inner city area.

Primary care, administration, academic medicine - is practicing in a large inner city area.

Primary care, internal medicine - will practice in the suburbs.

Internal medicine - will practice in a large inner city area.

Figure 5.5 Types of Practices and Practice Locations of Participating Physicians/Residents

Table 9 shows 100 percent of the participants currently practicing medicine, participate in policy decisions, eighty-three percent of the participants have

worked in the Black community since graduating from medical school. Only 17 percent of the practicing participants are involved in academic medicine.

Table 9

Physicians/Residents Served in the Following Capacities

	RESPONDENTS		
	Physicians N=4	Residents N=2	Percent
Medical School Faculty			
Yes	1		17
No	3	2	83
Participate in Policy Decisions			
Yes	4	2	100
No			
Worked in Community			
Yes	3	2	83
No	1		17

Finally, Figure 5.6 shows the type of community work done by the physicians participating in this study. This finding is also significant, because study participants are again supporting the above finding which indicates a greater number of Black physicians do provide health care to the Black community.

Working with Black youth in schools and in church.
Hypertension screening clinic, Board of Directors of Community Health Center, school physician.
Administrator in community health center.
Will do public health fellowship.
Role model through engineering company program. Works with children in community on improving their health, tutoring, uses educational tapes for children. Feels Blacks must do what they can to improve things.

Figure 5.6 Types of Community Work Done by Physicians/ Residents Participating in Study

CHAPTER VI

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

A. Summary

The major purpose of this study was to examine factors contributing to the success of Blacks in medical education. A second purpose of this study was to determine whether the usual and traditional medical school admission criteria in fact provide the best predictors of success for Black students. The in-depth interviews conducted in this study permitted an explanation focusing primarily on the factors contributing to the success of the participants.

The primary objectives of this study were:

1. To provide an overview of successful Black medical students and Black medical school graduates/physicians.
2. To provide examples of Black role models for Black youth interested in pursuing a medical education.
3. To potentially provide medical school admission committees with alternative criteria to utilize when evaluating Black medical school candidates. This could be accomplished by making the data from this study available to medical schools. This investigator believes if non-traditional criteria are used to evaluate Black medical school applicants, this could be one method of increasing the number of Blacks entering medical school and therefore, ultimately increase the number of Blacks in medicine.

1. **Role of Religion**

While examining the factors contributing to the success of Blacks in medical education, the role of religious affiliations, church or church members and/or a belief in God or a greater being, surfaced as a significant factor contributing to the success of many of the participants during medical school.

The results of this study suggests that religion was a critical element contributing to the success of a majority of the participants in this study. Their spiritual strength contributed to their persistence, retention and success in medical school. Hughes (1987) points out, Black people rely on a deep spiritual belief for strength when faced with difficulties and oppressive conditions. Many of the participants provided strong support of this concept. They relied on the encouragement provided by church members. This encouragement was reinforced on a weekly basis or whenever the students attended church services. This dynamic of spiritual support was a critical element in the survival of the student during their pursuit of a medical education. It is important that this type of information be disseminated amongst Black churches or religious organizations, so they are more cognizant of the contributions they can make in helping to prepare and groom Black youth to achieve their professional goals. Black churches have the opportunity to take a more active role in providing exposure of Black youth to medicine or other professions they may wish to aspire to. This can be

providing exposure of Black youth to medicine or other professions they may wish to aspire to. This can be accomplished by utilizing many professionals within the church membership or community. They are in a position to provide tutorial and enrichment programs in the areas of mathematics, science, reading, etc. The involvement of developing leadership skills in Black youth is already in place in many Black churches. Taking the initiative to sponsor career days within the church or setting up mentorship programs and conducting oratorical contests are additional areas Black churches can take the initiative to help Black youth. In other words, the Black church must take stronger measures to act as an advocate for bringing about greater educational and professional equity for Black youth.

2. **Early Decision**

Another significant finding in this study was the necessity for Black youth to make early career decisions. It is important for potential medical school applicants to determine early on in their education whether they wish to attend medical school. Sleeth and Miskell (1977) report many Black undergraduates are poorly prepared for premedical courses; therefore, they avoid them. Sixty-percent of the participants in this study made the decision to become a physician between the ages of 10-16. This decision allowed these individuals to take advanced mathematic and science courses during high school and helped them to be better prepared to achieve their goals. The other 40 percent of

the participants, although a little older, also made the decision to become physicians between the ages of 17-20. This decision enabled them to take the appropriate required premedical school courses while attending undergraduate school. It is important for Black students to have adequate preparation in their mathematics and science courses prior to taking their premedical courses; because this preparation can make the difference in the students ability to successfully complete their medical school prerequisites.

3. **Intervention Programs**

To reiterate points raised in Chapter II, one factor contributing to the underrepresentation of Blacks in medicine was educational deficits and the academic unpreparedness of Black students. Black students are more likely to be enrolled in elementary and secondary schools in areas suffering from economic deprivation. These schools are plagued by social and behavioral problems, limited parental involvement, and apathetic teachers and educational administrators. Many Black students are placed in vocational or low track classes which lack intellectual stimulation or challenge and have teachers who have low expectations of them. This situation reinforces the belief in these students that they cannot meet high academic standards. However, if effective programs are developed for Black elementary and secondary school students, these programs can help Black students overcome their academic deficiencies.

4. Counseling

The need for committed guidance counselors at the high school level and advisors at the undergraduate school level was also cited as a factor contributing to sucessful admission to medical school. These counselors are needed to encourage Black students to consider medical education. They are also needed to assist these students in selecting the rigorous science and mathematics courses, that will help prepare them to handle the difficult medical school curriculum.

The study participants lacked significant assistance from guidance counselors and some participants indicated they were discouraged form pursuing medical school and were presented with other career options; however, their determination to become physicians prevailed.

5. Academic Preparation

The majority of the study participants felt they were academically prepared to succeed in college. The majority received A and B grades in their premedical school science courses. This finding was consistent with the study findings of Hayes (1984). The average GPA for participants in this study was 3.6. This GPA was a combination of all undergraduate courses and not reflective of the science GPA. Elliot (1985) indicated the average science GPA for Black applicants admitted to medical school was 3.22. A factor to be considered in this GPA was that two of the participants GPA's were based on a 5.0 grading system rather than a 4.0

grading system. This could account for the higher GPA found in this study.

6. Admission Criteria

In summarizing the factors contributing to the successful admission, retention and graduation of Blacks from medical school, this investigator found it necessary to review the traditional medical school admission criteria. The traditional medical school admission criteria have serious implications for Black medical school applicants.

The traditional medical school admission criteria include, but are not limited to, the MCAT, college GPA, quality of the undergraduate college attended, letters of recommendation and the interview reports. However, authors such as Joyner (1988) and Vega (1988) concur that the single most significant criterion used by medical schools is the MCAT. The emphasis placed on the MCAT has the effect of reducing the number of Blacks admitted to medical school because many Blacks receive lower scores on this examination than do majority students. Both the Johnson Report (1987) and Johnson, Lloyd, Jones and Anderson (1986) suggests MCAT scores alone are inadequate to predict success in medical school. The MCAT primarily predicts the students' performance during the first year of medical school. Further, it was noted that to date there is no quantitative or qualitative tool available to predict who will be a competent doctor.

7. **Relationships with Faculty**

This investigator was unable to draw any conclusions from the MCAT scores provided by the participants in this study. Many of the participants did not know or remember their MCAT scores.

Although Fleming (1981) reflects on the significance of faculty-student relations, she notes frequently Black students have a difficult time forming close relationships with faculty. Hirschorn (1988) posited that medical school faculty frequently have a negative perception of Black medical students because some of them had to repeat the first year of medical school. She states many medical school faculty are unlikely to extend themselves to help minority students and they have low expectations of these students. A majority of the participants in this study commented on their inability to form close relationships with medical school faculty. Many expressed feelings of isolation during clinical rotations. They expressed feelings of being excluded from the team and they either experienced overt or covert racism during their medical school training. Wiley (1990) suggests the insensitivity and hostility that Black medical students experienced during their medical school training impacts on the underrepresentation of Blacks in medical education. Griffith and Delgado (1979) elaborate on the professional socialization of Blacks during residency training. These authors provide a clearer understanding of the dynamics which many Black medical students and residents experience.

They also provide some assistance to the individuals going through these experiences to let them know they are not the problem, it's the system of racism that clearly is the problem.

8. Isolation

However, the ability of Black medical students and residents to withstand the racism and the feelings of isolation and exclusion is exemplary of the characteristics necessary to succeed in medical school. In addition to the negative experiences, many Black medical students and residents face during their medical education, they still have to also withstand the rigorous academic and clinical demands placed upon them. Only students with remarkable endurance have the ability to handle these difficult and delicate situations.

9. Alternative Admission Criteria

Research has shown that Blacks have succeeded in medical school in spite of Black applicants lower scores obtained on the MCAT's. As previously stated in Chapter V, this finding of successful completion of medical school despite the lower scores obtained on MCAT's or their not meeting the traditional criteria, leads this investigator to the conclusion that there are other more significant factors or driving forces contributing to the success of Blacks in medical school. It is essential to utilize non-traditional and non-cognitive criteria when evaluating potential Black candidates for medical school.

10. Support Systems

Another critical finding of this study was the necessity of strong support systems in relation to the success of Blacks in medical school. Patterns emerged when the participants discussed the support systems available to them in medical school. The support systems included strong parental and family support systems. The need for parental support did not just surface during medical school, but was very evident during the participants' early childhood years in the types of values, character building traits and self-confidence that emerged during the interview process.

Another support system addressed was the minority affairs office. This was mentioned by many of the participants who felt they knew they could turn to this office if they had a problem. This office was there to provide support as well as to intervene if necessary. However, the Office of Minority Affairs was not found to be effective by all of the participants. One participant felt this office lacked sufficient funds to provide vital support services, i.e., tutorial services. Another participant found the Office of Minority Affiars was ineffective during her traumatic experiences in medical school. This participant saw the office as a "token" office which lacked any real power to intervene when problems arose. This finding will be important when making or considering recommendations because the Office of Minority Affairs should be a vital part of Black students' support system.

This office should be able to help ensure the successful completion of medical school for Black medical students.

All participants expressed the support they received from fellow students and from the Black or minority student organizations provided in medical schools. This system was not only valuable for support, but it was also utilized for academic or for study purposes. This peer support system must be acknowledged and there is a need to formalize this peer or buddy system so that it is availabe for all Black students. The peer system is also important because although many participants expressed Black role models or mentors was a system they wished was available to them during the medical school experience, the literature indicated and the study supported the lack of Black role models or mentorship programs available to Black students. Role models and mentors have the potential to be support systems, provide assistance when students are faced with difficult situations, provide guidance to the students and help combat some of the isolation Black students experience during medical school. This system would also be beneficial in view of the difficulty Black medical students have in developing faculty-student relationships as previously mentioned.

B. Conclusion

The American dream is based on the premise that the opportunity to achieve success is within the grasp of anyone who is willing to work hard, anyone who is ambitious, highly motivated, creative, self-confident or a risk-taker. This

presumed belief has been depicted throughout American history. However, today we have evolved into a credentiated and high technologically oriented society. With this evolution, higher education becomes the primary gatekeeper for entry into prestigious and lucrative professions. These professions include medicine, business and finance, law, engineering, science, education and politics.

The dream to aspire into prestigious and/or lucrative professions is realistic for the majority; however, for members of certain minority groups, specifically, the Black minority group, the gates to higher education are frequently barred.

It is important to realize that exclusionary practices or a lack of equitable representation of certain minorities in educational systems or professions is detrimental not only to those underrepresented minorities, but also to the welfare of this country as a whole. Exclusionary practices perpetuate a system of inequity. There is a lesson to be learned: a chain is only as strong as its weakest link and likewise this country, as powerful as it is, is still vulnerable because of many of its practices of racism. America needs to grapple with those issues and make a decision not based on pragmatic issues, but on moral issues of equity for all of its citizens.

Even a decision based on a pragmatic standpoint indicates this country has and will continue to suffer ill effects because of its exclusionary practices. It is suffering from a brain drain, because a large segment of the

minority population is not prepared to be productive academically, scientifically or technologically in spite of the highly competitive world economy. For example, this country is competing against countries such as Japan, Korea, Taiwan and Europe in the areas of science, technology and the economy. America can no longer afford to have only a segment or portion of its population being productive. It needs a majority of its population being productive. Strengthening and improving the academic preparation of Blacks will not only increase the number of Blacks qualified to become physicians, but it will increase the number of Blacks qualified to become engineers, businessmen and women, physicians, educators, scientists, etc.

In this highly technological world economy, Japan has begun to surge ahead of the United States, with European countries, Korea and Taiwan following on their heels. Foreign investors are buying more and more of American property and businesses; this country can no longer afford to fight off its competitors with one arm, its minority arm, tied behind its back. This perpetuates the brain drain. Until this country acknowledges the need to recognize the value and potential of each individual, Black or White to fulfill vital and essential roles in this society, it is vulnerable. Herein lies the Achilles heel. Therefore, it is essential for this country to take immediate measures to strengthen its weak links.

This study confirmed the finding which indicates minorities can and do succeed when given the proper tools,

the opportunity and adequate support systems. The literature revealed one of the consequences of exclusionary practices in medical education is the underrepresentation of Blacks in medical education and in the medical profession. The repercussions of this underrepresentation of Blacks in medicine has resulted in medically underserved Black communities, poor health status amongst Blacks, a dearth of Black medical providers, medical role models, researchers and educators. Black physicians are needed to address the severe unmet health care needs of Blacks, the poor and other minority citizens.

A well organized and collaborative approach must be developed and implemented to bring about true equity in medical education and to address the disadvantage created by decades of exclusion, deprivation, segregation and discrimination at all levels of the educational system. It is the hope of this investigator that the information gleaned from this study will impact on medical educators interested in bringing equity for Blacks into the medical profession. It is also hoped that this study will affect the lives of some Black youth interested in medicine. This investigator hopes it serves to provide exposure to medicine based on the experience of Blacks who have already pursued and achieved a medical dream. So they will realize it is a viable goal for them to attain. It is hoped that it will inspire them if this goal seems unobtainable, give strength if they are encountering obstacles, and provide fortitude to be persistent in facing the many barriers they will

encounter in pursuing a medical education. They may be able to realize that others have had the same experiences, but succeeded because of their persistence.

In conclusion, the findings of this study suggests the following factors or ingredients contribute to the success of Blacks in medical education.

1. **Exposure and Access**

It is important for Black youth to have exposure to the medical profession, if they are going to have this goal as a viable option for them. This exposure will allow them, especially if exposed early in life, to dream; to be more serious about their education and to take the course necessary to prepare them academically for medical school. None of the study participants had parents in the medical profession. This is not atypical with Blacks having only 2.9 percent representation in the medical profession. Therefore, it is critical to establish other vehicles or mechanisms to provide this exposure such as Black churches and community agencies collaborating with Black physicians to set up programs and presentations to Black youth.

Community schools should conduct health career days, and bring black physicians in to talk to Black youth about the medical profession and let them know it is a viable option for them. The educational system should develop and implement health career programs and academic tracks for middle school and high school students. The educational system must commit to providing an adequate number of Black and White guidance counselors who are committed to working

with and advising Black students and their parents regarding the curriculum and academic preparation necessary to pursue their goals. It is also important for guidance counselors to be aware of and present medical school options to Black youth.

Medical schools should collaborate with junior and senior high schools and undergraduate schools to participate in health career programs. Additionally, they should provide medical school exposure programs during the summer. Medical schools also need greater commitment to bringing equity into the medical profession and creating greater access to Black students through programs such as The Early Medical School Selection Program (EMSSP). These programs help improve the transition process from undergraduate school to medical school. They also help provide an organized period of sociocultural adjustment to promote self-confidence, and to ensure greater academic performance and graduation from medical school. Culbert (1988).

Another important factor is the necessity for parents to be more involved in their children's education. They must find out about the different careers available to their children, and take an active role in ensuring that their children get the type of academic coursework necessary for them to succeed in medical school or in any other profession they may want to choose. Parents must find means and seek resources available to provide exposure to the medical profession. This can be done through their physician,

community health centers, or by calling community agencies for information.

2. **Personal Characteristics**

Although the participants in this study felt Blacks need a strong science and mathematic background to be able to successfully complete the rigorous and challenging curriculum of medical school, many also felt there were other factors that were more significant for Blacks to have if they want to complete medical school. These characteristics include the following:

- a high degree of self-confidence and self-esteem
- motivation
- having the ability to postpone rewards or delayed gratification
- having an unyielding sense of determination, perseverence and/or endurance to succeed
- having good study habits
- having the ability to withstand racism.

After reviewing the study, it became evident that many of the participants had a strong science and mathematics background, but some did not. This investigator drew conclusions from this finding one of which was that Blacks can strengthen their science and mathematics backgrounds during undergraduate school. But, the factor that seemed more important was the individual's dream or goal to pursue medicine. This finding focused this investigator in the direction of the aforementioned characteristics. Characteristics such as motivation and determination coupled

with intellectual ability seemed to help these participants. The participants drew on their ability to withstand racism to get them through many difficult racial provoked experiences they encountered during medical school. Many participants expressed their determination to succeed in spite of these negative encounters. They found that although their self-confidence and self-esteem were often shaken, they were able to bounce back and still feel good about themselves.

Participants also addressed the need to be able to withstand the pressures of medical school. They had very challenging coursework and long hours during clinical rotations, as well as many long hours of study. It was their persistence and endurance that carried them over these hurdles.

Participants revealed their need to be able to postpone rewards and have long-range vision. Many of their friends or acquaintences had completed their education, had decent incomes, a family, home, etc., while they were still struggling through medical school. They had to be able to understand that these rewards and many others would be there for the asking or choosing, after they completed medical school.

3. **Support Systems**

The findings of this study indicate religion or some religious affiliation has been shown to be a strong dynamic contributing to the success of Blacks in higher education and in medical school. Brown (1990) points out that

religion serves to anchor and stabilize numerous Black students who consider dropping out of school because of deep feelings of isolation and alienation. Hughes (1987) also contends religion is deeply rooted in the Afrocentric culture and Black people call on this strength and belief when going through difficulties and oppressive conditions. Therefore, this investigator feels it is essential to include the Church and religion as a signficant support system that medical schools can make available to their non-resident Black students. They can provide a directory of churches available in the surrounding communities.

Another strong support system which surfaced in the study was parental and family support. Many of the participants saw the encouragement and emotional support they received from their family as being a significant factor in their success in medical school. Hughes (1987) elaborates on another important Afrocentric culture, the family. This author addresses the close relationships of Black families and suggests that parents, families and community friends are a source of encouragement, strength and survival for Black students.

Peer support was also seen as being very valuable to the participants in this study. Peers can be there for support, they provide a sounding board for one another, and they can provide study groups. This system is significant for many reasons, for example, it is a system which is already in place, it is not dependent upon funding from any source or agency and it is there for a large portion of a

students medical education. Although peer systems can develop naturally during the educational process, it is important for this process to be formalized into programs such as the buddy system which pairs matriculated students up with freshman students.

The development of an effective Minority Affairs Office can be another system of support for Black students in medical school. The study findings revealed one of the participants went through medical school without the benefit of a Minority Affairs Office, but this individual was able to utilize a Black faculty member as a sounding board and support person. However, a concern did arise. Some participants spoke of the powerlessness of this office due to the lack of available funding to provide the necessary services such as tutorial services, counseling services, or the ability to establish a mentorship program for students.

It is important for medical schools to develop a serious commitment to the Minority Affairs Office if they hope to reverse the dearth of Blacks in the medical profession. This office has the potential to assist in the recruitment and retention of Black students who are educationally disadvantaged or who are facing the backlash of racism during the medical educational experience. Brown (1990) indicates the primary services provided by support service programs are: tutorial and counseling services, academic advising, and performance monitoring. This author further sees the overriding objective of support service programs as assisting students in becoming members of the

campus community. In order for this office to function proficiently it needs to have adequate funding, autonomy, decision-making power within the medical school, an adequate number of qualified staff to meet the needs of the Black student population, be recognized as an integral part of the medical school, valued by administration and faculty, and have a clear sense of mission and purpose.

4. **Financial Resources**

A major concern of the participants in this study was their medical school indebtedness and immediate access to guaranteed loans and scholarships. Culbert (1988) agrees that a major concern for medical students is the medical school indebtedness. He discusses an alternative means of financing medical education, namely, the military or uniformed services. Although the military has had negative connotations for Blacks, he sees it as a viable option for Black medical students. He further states the military service offers health professional scholarships which do not limit the student's career options and they pay salaries to their house officers which are higher than civilian residencies. However, the majority of the participants indicated that although the medical school indebtedness was high, they felt the benefits of achieving their goal made it worthwhile.

5. **Specially Designed Medical School Programs**

The development of special programs geared towards improving admission, retention and graduation from medical school is another factor which surfaced during this study.

Participants in this study addressed the need for the existence of such programs. They also felt it was important for Black medical school candidates to utilize these programs during their medical school pursuit. One such program is the Early Medical School Selection Program at Boston University. Culbert (1988) states this program is replicable. This program has the capacity to expose students to the rigors of medical school while in undergraduate school. It also lowers the repetition rates and improves the retention rates of Black students.

6. **Non-traditional Admission Approaches**

- Ensure that the Medical School Admissions Committee is diverse in nature and includes Black physicians and medical students, as well as representation from the Minority Affairs Office. These individuals must have decision-making power on the committee.
- Provide medical school admission committee members with training to develop their ability to identify non-academic or non-cognitive characteristics or variables during the application reveiw process. Additionally, this training will enhance the committees proficiency, so they are better equipped to elicit these non-cognitive characteristics during the interview process with Black candidates. This technique has already been established and is called the Simulated Minority Admissions Exercise (Sedlacek and Dario, 1983).

- Establish non-traditional criteria to evaluate Black students by i.e.,

  1. MCAT cut-off points - not necessarily reflective of the traditional high scores, but scores reflective of successful completion from medical school.
  2. Incorporate the characteristics mentioned under personal characteristics into the criteria used to evaluate Black candidates.
  3. Review community services or volunteer work in hospitals, doctors offices or community health agencies as recognition of the candidates motivation to pursue the field of medicine.
  4. View letters of recommendation from clergy and community agencies, as well as faculty or advisors, as valuable indicators of the applicants character.
  5. Have Black applicants write essays which include personal information about themselves, their educational experiences, personal ambitions and goals, and how they intend to handle the rigorous challenge of medical school.
  6. Require Black applicants to attend an admissions forum which will allow them to mix and mingle with faculty and Black students. This forum will allow applicants to follow a

medical student around during clinical rounds or sit-in on a class. Then set up a social function which will allow the candidate to relax, thereby relieving some of the pressure associated with interviews. The student will be better able to evaluate the candidate during this process and make recommendations to the admissions committee.

In conclusion, Blacks do have the potential to successfully complete medical school and become productive and valuable members within the medical profession, within the Black race and within the society as a whole. This can occur only if Blacks are afforded the opportunity of a quality education, exposure and access to medical school; the medical profession and adequate support systems and adequate financial resources. Historically, Blacks have suffered from many setbacks due to exclusionary practices and racism, but this country can no longer afford the vulnerability created by these practices. This country and the medical profession must take the necessary steps to bring equity into medicine. A quote taken from Chapter V sums up the problem succinctly.

> There were, and to some extent still are, incredible barriers. In addition to the usual pressures of medical school, the minority student must be able to handle cultural biases; that is, he must possess a sense of internal control and the determination to press forward in spite of differences and disparities. Moreover, he must accept the new culture of the majority and learn how to blend it with his own. This is an arduous task since he does not have the standard credentials - the multifaceted academic and social

> exposures which his fellow students take for granted. Only a student of extraordinary stamina can deal with these complex and sensitive issues - a student who manifests an unusual degree of self-esteem and an unyielding determination to succeed. The minority student has done this and therefore proven the concept that non-cognitive skills are as important as cognitive ones in predicting his performance (Watts, 1983, p. 248).

C. Recommendations for a Change in the System

Based on the study findings, this investigator has developed a list of institutions necessary to create change, and made recommendations which have the potential of bringing equity for Blacks within the medical profession.

1. Resources Available to Create Change

a. Academic Unpreparedness:

(1) Black community and institutions

(2) Black physicians

(3) Politicians

(4) State and federal government

(5) Educators

(6) Medical schools

b. Economic Deprivation

(1) Black community and institutions

(2) Black physicians

(3) Private sector

(4) Federal government

2. Strategies for Effective Change

a. Black Community and Institutions. The level of awareness in the Black community should be raised regarding the enormity and magnitude of the problems which occur as a result of the poor academic preparedness of Black

youngsters. Once this is achieved, community residents, churches, businesses, social and human service organizations, community leaders, professional, etc., can engage in a cooperative endeavor to address the issue and pressure politicians, government agencies and educational institutions to improve the quality of the public education Black children receive at all levels.

Black churches must take a more active role in developing programs that help support and assist Black youth throughout their educational experience. This can be achieved by setting up programs that have tutorial, mentorship and leadership components, conduct workshops that promote self-esteem and self-confidence in Black youth and create programs that develop study and test taking skills. Black churches can bring representatives from medical schools and from the medical profession to introduce Black youth to the options available to them. Black churches can also develop collaborative relationships with community agencies that have some of the aforementioned programs already in place, so they can benefit from agency experience and utilize some of their resources.

Black parents need to become actively involved in the education their children receive. Parents must provide greater support and encouragement to children to achieve and succeed in their educational pursuits. Parents must encourage children to pursue medical education or a profession of their own interest. They must be made to

realize that they can achieve if they believe in themselves and are willing to work to achieve their goals and dreams.

Blackwell (1987) recommends that minority students and their families to take some responsibility for themselves. He states that minority families must create a learning environment in their home, develop their children's interest in learning, and establish discipline and respect for authority. Families have a responsibility to provide their children with the ability to establish future goals and ambitions. Minority families also need to work more closely with the elementary and secondary school systems.

They need to make sure their children's homework assignments and school projects are completed. They should also pay closer attention to their children's class attendance as well as the friends their children select. Minority children must become more competitive to survive in the academic arena.

b. **Black Physicians' Responsibility.** It is important for Black physicians to take more responsibility for increasing the number of Blacks entering the medical profession. Tuckson (1984) recommends the following steps must be taken to achieve this goal. (1) They must participate in the policy decisions that impact on the future health of Blacks on local, state and federal levels; (2) They must help ensure greater access to medical education for Blacks; (3) They must encourage Black students during their primary and secondary school years to consider medical education, and help direct them to take the

necessary science and mathematic curriculum to prepare them for medical school; (4) Black physicians should devote more time serving as role models and mentors to Black youth; (5) They need to participate on medical school admission committees in a decision-making capacity; (6) They should provide support to the four historical Black medical schools and help bring more funding into these institutions.

c. **The State and Federal Government**. The federal government also has a vital role in bringing parity into the medical profession. As Blackwell (1987) states the federal government must take the lead in creating change. The government must encourage states and institutions to create greater access to educational opportunities. The federal government must continue to provide funding to higher education and support affirmative action programs in higher education, this includes withdrawing funding from institutions not in compliance with civil rights court orders.

Congress must legislate measures that will safeguard existing rights from Presidents unwilling to enforce these laws. The federal government must take the lead in ensuring equal employment and economical opportunities for Blacks. The government must create programs to eliminate the high dropout and pushout rate amongst Black high school students and must ensure that Black students have access to quality education throughout their educational process.

Finally, the federal government must continue to provide funding to historically Black colleges to ensure

maintenance, survival and to enhance their educational programs. The historically Black colleges continue to maintain enrollment of at least 90 percent Black. This will help to increase the number of Black students available for graduate and professional schools.

d. **Medical Schools Responsibilities Must Be To:**

- Reaffirm their commitment to equity in medical education for Blacks. Work towards ensuring equal access to Blacks and achieve population parity within the next ten years.
- Establish minority affairs offices, managed and operated by people of color, in all medical schools. The director of the minority affairs office and the medical director or medical consultant participate and must have equal decision-making powers on the medical school admissions committee. The medical school must provide the minority affairs office with the necessary budget and funding to provide the programs and services to ensure the successful admission and completion of medical school for Blacks.
- Develop mentorship programs within the medical school setting. This study revealed the need for more Black role models and mentors. Both have a valuable role in contributing to the success of Blacks' in medical school. According to the Johnson Report (1987) role models and mentors

provide valuable standards of accomplishment for medical students. They provide inspiration, upward mobility, a sense of caring, respect for the students' strengths and weaknesses. They inspire the belief that medicine is a viable and attainable goal.

- Mentors can help alleviate some of the alienation and isolation Black students often encounter while pursuing a medical education. Their support, guidance and motivation can make the difference in the student's ability to withstand the many difficulties they may encounter.
- Commit to and increase the number of people of color on their clinical as well as academic faculty and in their administrative and office staff.
- Develop alternative or non-traditional admissions criteria to evaluate Black applicants pursuing a medical education. This criteria should be more reflective of the attributes necessary for Black students to achieve academic success in medical school.
- Recruit and provide support to minority students at the secondary school level and early in college through programs that are thought-out and designed to motivate and develop Black students who show academic promise and an interest in medicine.

- Develop more programs such as the Early Medical School Selection Program or the Medical Opportunities Program which helps to recruit, retain and graduate Black medical students.
- Participate in the Robert Wood Johnson's Minority Medical Education Program which is a six-week summer program that provides: (1) academic enrichment programs to develop mathematics, science and problem-solving skills; (2) develop structured laboratory experience; (3) provide counseling regarding the selection and application process for medical school; (4) provide MCAT preparation and review; and, (5) provide for participant follow-up.

e. **Private Institutions**. Private institutions and philanthropists are also valuable to increasing the number of Blacks entering the medical profession.

Blackwell (1987) indicates the corporate structure, private foundations, and the professional associations continue to provide funding and their expertise to support programs that ensure greater access and opportunity for minority students. He says it is not only important to maintain their level of previous commitment to this goal, but they must expand their efforts. The private sector must continue to support both need-based scholarships and financial awards based on merit to minority students who have exhibited exceptional academic ability. He also

recommends that they develop their own outreach and early identification programs.

f. **Politicians' Responsibilities:** Politicians should develop and support policies and legislation that ensures equal educational opportunities for all Black students. They should also ensure adequate funding be available to develop and maintain the necessary programs that will provide Black students with a quality education.

g. **Educators' Responsibilities:**

- Ensure that a quality education is provided to all Black students in the public school system.
- Ensure that qualified and motivated teachers are provided in predominantly Black schools and increase the number of Black teachers and administrators in the school system. They must provide public schools with psychologists and counselors to work with problem and high-risk students.
- Remove the tracking systems that exist in the schools and allow all Black students an opportunity to obtain a quality education.
- Develop health career programs to expose the Black students to the various health professions available to them. They should also have Black professionals make presentations on the various professions thus serving as role models to the students.

- Develop work study programs in the various health settings for interested students as well as for exposure.
- Redesign and strengthen the mathematic and science programs to ensure Black students are better prepared to achieve success in their higher educational pursuits.
- Develop and integrate into the mathematics, science and health professions curriculum and contributions made by Blacks to these fields.
- Require guidance counselors to provide guidance, assistance and support to Black students in their career and academic pursuits. Provide materials to the students and their parents on the careers, schools and programs available and assist in application process.
- Provide college entrance examination and test taking courses for the students starting at the mid-school level.
- Develop and implement programs to increase the retention rates of Black students to make it equal to that of the White students.

D. Recommendations for Future Research

The study findings were valuable and they corroborated the existing research dealing with Blacks in medicine, however, it may be helpful to conduct this study using a

large sample of individuals who have achieved success in medical school.

Additional research should also be conducted to establish minimum baseline MCAT and GPA standards necessary for Blacks to successfully complete medical school.

APPENDICES

APPENDIX A

POPULATION OF THE UNITED STATES, BY RACIAL/ETHNIC CATEGORY: 1970, 1980 and 1987

Racial/Ethnic Category	1970 Census		1980 Census		1987 Projections	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
TOTAL	203,211,926	100.0	226,504,825	100.0	243,084,000	100.0
ALL MINORITIES	33,563,946	16.6	45,622,193	20.1		
Asians	1,538,721	0.8	3,500,636	1.5		
Underrepresented Minorities[1]	32,025,225	15.8	42,121,557	18.6		
American Indians	827,268	0.4	1,418,195	0.6		
Blacks[2]	22,125,355	10.9	26,097,479	11.5	30,007,000	12.3
Hispanics	9,072,602	4.5	14,605,883	6.4	18,312,000*	7.5
NON-MINORITIES	169,647,980	83.4	180,882,632	79.9	206,233,000	84.8

*1987 estimate of the Hispanic population does not exclude either Black or White Hispanics.

[1]Includes American Indians, Black Americans, and Hispanic Americans.

[2]Excludes Blacks of Hispanic origin or descent.

SOURCE: U.S. Bureau of the Census, Projections of the Population of the United States by Age, Sex, and Race: 1983 to 2080, Current Population Reports, Series P-25, No. 952.

U.S. Bureau of the Census, Projections of the Hispanic Population: 1983 to 2080, Current Population Reports, Series P-25, No. 995.

APPENDIX B

FIRST-YEAR ENROLLMENT IN SCHOOLS OF ALLOPATHIC MEDICINE IN THE UNITED STATES, BY RACIAL/ETHNIC CATEGORY: ACADEMIC YEARS 1968-69 THROUGH 1986-87

Academic Year	First-Year Enrollment	First-Year Minority Enrollment	Under-Represented Minority[1]	Racial/Ethnic Category					
				Black American	American Indian	Hispanic American[2]	Asian American	Other Minority	White American[3]
	Number of Students								
1968-69	9,863	413	292	266	3	23	121	--	9,450
1969-70	10,422	641	501	440	7	54	140	--	9,781
1970-71	11,348	998	808	697	11	100	190	--	10,350
1971-72	12,361	1,279	1,062	881	23	158	217	--	11,082
1972-73	13,570	1,440	1,175	961	33	181	231	34	12,130
1973-74	14,154	1,622	1,292	1,019	44	229	259	71	12,502
1974-75	14,763	1,949	1,473	1,106	71	406	275	91	12,814
1975-76	15,295	1,912	1,391	1,036	60	461	282	73	13,383
1976-77	15,613	2,024	1,400	1,040	43	512	348	81	13,589
1977-78	16,136	2,146	1,458	1,094	51	615	395	--	13,990
1978-79	16,501	2,225	1,443	1,061	47	665	452	--	14,276
1979-80	16,930	2,463	1,545	1,108	63	790	502	--	14,467
1980-81	17,186	2,585	1,548	1,128	67	818	572	--	14,601
1981-82	17,268	2,933	1,671	1,196	70	902	765	--	14,335
1982-83	17,254	3,069	1,626	1,145	62	926	936	--	14,185
1983-84	17,150	3,124	1,658	1,173	75	893	983	--	14,026
1984-85	16,997	3,275	1,672	1,148	77	926	1,124	--	13,722
1985-86	16,929	3,208	1,798	1,030	61	953	1,164	--	13,721
1986-87	16,819	3,703	1,677	1,174	61	954	1,514	--	13,116

Continued next page

APPENDIX B

Academic Year	First-Year Enrollment	First-Year Minority Enrollment	Racial/Ethnic Category: Under-Represented Minority[1]	Black American	American Indian	Hispanic American[2]	Asian American	Other Minority	White American[3]
	Percent								
1968-69	100.0	4.2	3.0	2.7	*	0.2	1.2	--	95.8
1969-70	100.0	6.2	4.8	4.2	0.1	0.5	1.3	--	93.8
1970-71	100.0	8.8	7.1	6.1	0.1	0.9	1.7	--	91.2
1971-72	100.0	10.3	8.6	7.1	0.2	1.3	1.8	--	89.7
1972-73	100.0	10.6	8.7	7.1	0.2	1.3	1.7	0.3	89.4
1973-74	100.0	11.5	9.1	7.2	0.3	1.6	1.8	0.5	88.5
1974-75	100.0	13.2	10.0	7.5	0.5	2.7	1.9	0.6	86.8
1975-76	100.0	12.5	9.1	6.8	0.4	3.0	1.8	0.5	87.5
1976-77	100.0	13.0	9.0	6.7	0.3	3.3	2.2	0.5	87.0
1977-78	100.0	13.3	9.0	6.8	0.3	3.8	2.4	--	86.7
1978-79	100.0	13.5	8.7	6.4	0.3	4.0	2.7	--	86.5
1979-80	100.0	14.5	9.1	6.5	0.4	4.7	3.0	--	85.5
1980-81	100.0	15.0	9.0	6.6	0.4	4.8	3.3	--	85.0
1981-82	100.0	17.0	9.7	6.9	0.4	5.2	4.4	--	83.0
1982-83	100.0	17.8	9.4	6.6	0.4	5.4	5.4	--	82.2
1983-84	100.0	18.2	9.7	6.8	0.4	5.2	5.7	--	81.8
1984-85	100.0	19.3	9.8	6.7	0.5	5.4	6.6	--	80.7
1985-86	100.0	18.9	10.6	6.1	0.4	5.6	6.9	--	81.1
1986-87	100.0	22.0	10.0	7.0	0.4	5.7	9.0	--	78.0

*Less than 0.05 percent.

[1]Includes Black Americans, American Indians, Mexican Americans, and mainland Puerto Ricans.

[2]Beginning in 1977-78, the general "other" category was dropped and a Hispanic classification was added, which is defined to include any person of Spanish culture or origin, regardless of race.

[3]Category includes all foreign students, and race not specified.

SOURCE: Association of American Medical Colleges, Division of Educational Measurement and Research. American Medical Association. "Annual Report on Medical Education in the United States, 1985-86" in Journal of the American Medical Association 256:12, 1563, September 26, 1986.

APPENDIX C

TOTAL ENROLLMENT IN SCHOOLS OF ALLOPATHIC MEDICINE IN THE UNITED STATES, BY RACIAL/ETHNIC CATEGORY: ACADEMIC YEARS 1968-69 THROUGH 1986-87

Academic Year	Total Enrollment	Total Minority Enrollment	Racial/Ethnic Category						
			Under-Represented Minority[1]	Black American	American Indian	Hispanic American[2]	Asian American	Other Minority	White American[3]
	Number of Students								
1968-69	35,833	1,275	854	783	9	62	421	--	34,558
1969-70	37,690	1,630	1,178	1,042	18	118	452	--	36,060
1970-71	40,238	2,294	1,723	1,509	18	196	571	--	37,944
1971-72	43,650	3,072	2,425	2,055	42	328	647	--	40,578
1972-73	47,366	3,918	3,102	2,582	69	451	718	98	43,448
1973-74	50,751	4,840	3,765	3,049	97	619	883	192	45,911
1974-75	53,554	5,974	4,324	3,355	159	1,224	959	277	47,580
1975-76	55,818	6,361	4,524	3,456	172	1,473	1,022	238	49,457
1976-77	57,765	6,787	4,715	3,517	186	1,645	1,177	262	50,978
1977-78	60,039	7,260	4,880	3,587	201	2,050	1,422	--	52,779
1978-79	62,213	7,596	4,898	3,537	202	2,265	1,592	--	54,617
1979-80	63,800	8,128	5,086	3,627	212	2,512	1,777	--	55,672
1980-81	65,189	8,614	5,209	3,708	221	2,761	1,924	--	56,575
1981-82	66,298	9,724	5,503	3,884	229	3,093	2,518	--	56,574
1982-83	66,748	10,345	5,544	3,869	235	3,305	2,936	--	56,403
1983-84	67,327	10,798	5,600	3,892	258	3,358	3,290	--	56,529
1984-85	67,016	11,374	5,707	3,944	257	3,410	3,763	--	55,642
1985-86	66,585	11,831	5,655	3,849	235	3,458	4,289	--	54,754
1986-87	66,125	12,538	5,722	3,892	242	3,521	4,883	--	53,587

Continued next page

APPENDIX C

Academic Year	Total Enrollment	Total Minority Enrollment	Racial/Ethnic Category						
			Under-Represented Minority[1]	Black American	American Indian	Hispanic American[2]	Asian American	Other Minority	White American[3]
			Percent						
1968-69	100.0	3.6	2.4	2.2	*	0.2	1.2	--	96.4
1969-70	100.0	4.3	3.1	2.8	*	0.3	1.2	--	95.7
1970-71	100.0	5.7	4.3	3.8	*	0.5	1.4	--	94.3
1971-72	100.0	7.0	5.6	4.7	0.1	0.8	1.5	--	93.0
1972-73	100.0	8.3	6.5	5.5	0.1	1.0	1.5	0.2	91.7
1973-74	100.0	9.5	7.4	6.0	0.2	1.2	1.7	0.4	90.5
1974-75	100.0	11.2	8.1	6.3	0.3	2.3	1.8	0.5	88.8
1975-76	100.0	11.4	8.1	6.2	0.3	2.6	1.8	0.4	88.6
1976-77	100.0	11.7	8.2	6.1	0.3	2.8	2.0	0.5	88.3
1977-78	100.0	12.1	8.1	6.0	0.3	3.4	2.4	--	87.9
1978-79	100.0	12.2	7.9	5.7	0.3	3.6	2.6	--	87.8
1979-80	100.0	12.7	8.0	5.7	0.3	3.9	2.8	--	87.3
1980-81	100.0	13.2	8.0	5.7	0.3	4.2	3.0	--	86.8
1981-82	100.0	14.7	8.3	5.9	0.3	4.7	3.8	--	85.3
1982-83	100.0	15.5	8.3	5.8	0.4	5.0	4.4	--	84.5
1983-84	100.0	16.0	8.3	5.8	0.4	5.0	4.9	--	84.0
1984-85	100.0	17.0	8.5	5.9	0.4	5.1	5.6	--	83.0
1985-86	100.0	17.8	8.5	5.8	0.4	5.2	6.4	--	82.2
1986-87	100.0	19.0	8.7	5.9	0.4	5.3	7.4	--	81.0

*Less than 0.05 percent.

[1]Includes Black Americans, American Indians, Mexican Americans, and mainland Puerto Ricans.

[2]Beginning in 1977-78, the general "other" category was dropped and a Hispanic classification was added, which is defined to include any person of Spanish culture or origin, regardless of race.

[3]Category includes all foreign students, and race not specified.

SOURCE: Association of American Medical Colleges, Division of Educational Measurement and Research.

APPENDIX D

GRADUATES OF SCHOOLS OF MEDICINE IN THE UNITED STATES, BY RACIAL/ETHNIC CATEGORY: ACADEMIC YEARS 1968-69 THROUGH 1985-86

Academic Year	Total	Minority Graduates	Under-Represented Minority Graduates [1]	Black	Mexican American[2]	Mainland Puerto Rican	Other Hispanic	American Indian	Asian	Other Minority	Non-Minority Graduates
	Number of Graduates										
1968-69	8,059	2	2	142	10	3	--	3	--	--	3
1969-70	8,267	2	2	165	3	9	--	--	--	--	3
1970-71	8,974	2	2	180	3	3	--	3	--	--	3
1971-72	9,551	2	2	229	3	3	--	3	--	--	3
1972-73	10,391	492	398	341	39	10	--	8	--	94	9,899
1973-74	11,613	724	612	511	79	19	--	3	--	112	10,889
1974-75	12,714	928	798	638	110	28	--	22	--	130	11,786
1975-76	13,561	1,090	929	743	130	29	--	27	--	161	12,471
1976-77	13,607	1,108	963	752	144	38	--	29	--	145	12,499
1977-78	14,393	1,471	1,152	793	172	46	94	47	319	--	12,922
1978-79	14,966	1,505	1,155	774	194	52	86	49	350	--	13,461
1979-80	15,135	1,565	1,170	768	192	65	112	33	395	--	13,570
1980-81	15,673	1,623	1,209	766	201	76	123	43	414	--	14,050
1981-82	15,652	1,719	1,260	763	225	74	153	45	459	--	13,933
1982-83	15,728	1,812	1,329	813	214	70	188	44	483	--	13,916
1983-84	16,343	2,111	1,432	818	220	94	241	59	679	--	14,232
1984-85	16,318	2,221	1,471	828	242	89	247	65	750	--	14,097
1985-86	16,117	2,373	1,464	824	233	89	269	49	909	--	13,744

Continued next page

APPENDIX D

Academic Year	Total	Minority Graduates	Under-Represented Minority Graduates [1]	Racial/Ethnic Category: Black	Mexican American [2]	Mainland Puerto Rican	Other Hispanic	American Indian	Asian	Other Minority	Non-Minority Graduates
					Percent						
1968-69	100.0	2	2	1.8	0.1	3	--	3	--	--	3
1969-70	100.0	2	2	2.0	3	0.1	--	*	--	--	3
1970-71	100.0	2	2	2.0	3	3	--	3	--	--	3
1971-72	100.0	2	2	2.4	3	3	--	3	--	--	3
1972-73	100.0	4.7	3.3	3.3	0.4	0.1	--	0.1	--	0.9	95.3
1973-74	100.0	6.2	5.3	4.4	0.7	0.2	--	*	--	1.0	93.8
1974-75	100.0	7.3	6.3	5.0	0.9	0.2	--	0.2	--	1.0	92.7
1975-76	100.0	8.0	6.9	5.5	1.0	0.2	--	0.2	--	1.2	92.0
1976-77	100.0	8.1	7.1	5.5	1.1	0.3	--	0.2	--	1.1	91.9
1977-78	100.0	10.2	8.0	5.5	1.2	0.3	0.7	0.3	2.2	--	89.8
1978-79	100.0	10.1	7.7	5.2	1.3	0.3	0.5	0.3	2.3	--	89.9
1979-80	100.0	10.3	7.7	5.1	1.3	0.4	0.7	0.2	2.6	--	89.7
1980-81	100.0	10.4	7.7	4.9	1.3	0.5	0.8	0.3	2.6	--	89.6
1981-82	100.0	11.0	8.1	4.9	1.4	0.5	1.0	0.3	2.9	--	89.0
1982-83	100.0	11.5	8.4	5.2	1.4	0.4	1.2	0.3	3.1	--	88.5
1983-84	100.0	12.9	8.8	5.0	1.3	0.6	1.5	0.4	4.2	--	87.1
1984-85	100.0	13.6	9.0	5.1	1.5	0.5	1.5	0.4	4.6	--	86.4
1985-86	100.0	14.7	9.1	5.1	1.4	0.6	1.7	0.3	5.6	--	85.3

*Percent less than 0.05.

--This racial/ethnic category not in use during this year.

[1]Includes all minority racial/ethnic categories except Asian and Other minority.

[2]Data not available for sufficient number of racial/ethnic categories for meaningful totals.

[3]Data not available for this year.

SOURCE: Association Medical Association. "Medical Education in the United States, 1985-86" in Journal of the American Medical Association 256:12, September 26, 1986. Also prior issues. Division of Student Services, Association of American Medical Colleges.

INCOME

The diagrams below show the distribution of parental income of acceptees into the 1987 entering class.

Percent of accepted students

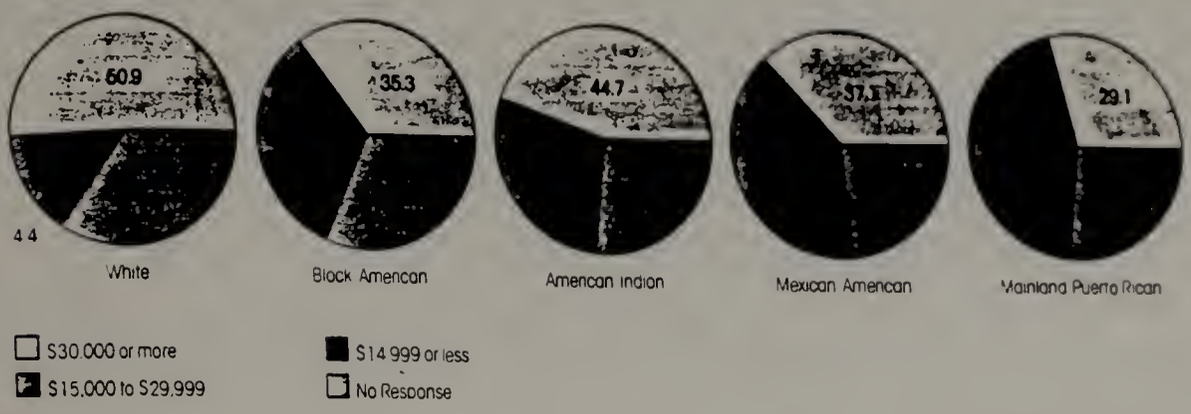

Table 9. Percent of minority applicants and accepted students in various parental income levels 1986-87 and 1987-88

Parental Income	1986-87		1987-88	
	Applicants	Acceptees	Applicants	Acceptees
Less than $5,000	46	30	43	28
$5,000-9,999	50	48	49	43
$10,000-14,999	67	63	70	63
$15,000-19,999	64	62	59	54
$20,000-24,999	73	71	71	71
$25,000-29,999	56	56	54	63
$30,000-49,999	185	198	181	191
$50,000 or more	154	174	174	185
No Response	306	297	299	303
Total	1000	1000	1000	1000

Table 10. Percent of applicants in various parental income levels 1987, by ethnicity

	No Income	$14,999 or Less	$15,999 to 29,999	$30,000 or More	No Response
Black	25	136	172	353	313
Other Hispanic	04	95	136	424	341
American Indian	08	122	187	447	236
Mexican American	13	163	215	371	238
Asian American	13	72	113	467	335
Puerto Rican Mainland	10	133	235	291	332
Puerto Rican Commonwealth	00	221	238	272	269
White	07	37	104	509	343
Unknown	06	34	59	237	664

SOURCE: Minority Students in Medical Education: Facts and Figures IV. The Association of American Medical Colleges Section for Minority Affairs. 1988.

MINORITY MEDICAL FACULTY

Figures in tables and charts depict minority faculty at all schools including Howard, Meharry, Morehouse, University of Puerto Rico and Ponce. In 1987 229 Blacks, 2 American Indians, 1 Mexican American and 1 Puerto Rican were on faculty at Howard, Meharry and Morehouse; and 255 Puerto Ricans and 37 other Hispanics were on faculty at the schools in Puerto Rico. Minority faculty accounted for 2.7% of all faculty of all medical schools.

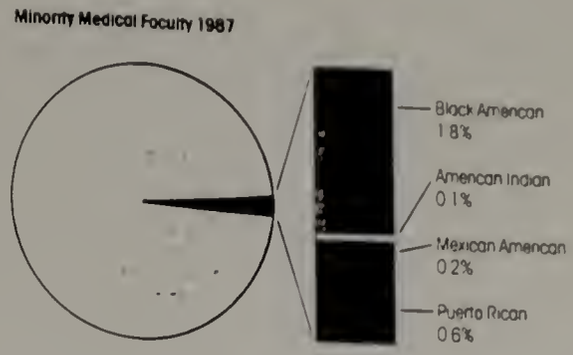

Table 32. Medical school faculty, number & percent distribution by ethnic origin for men & women 1981 and 1986

	Male				Female				Total			
	1986		1981		1986		1981		1986		1981	
Ethnic Origin	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Black American	696	1.5	564	1.4	344	3.3	246	3.1	1040	1.8	810	1.7
American Indian	37	0.1	30	*	10	0.1	7	*	47	0.1	37	*
Mexican American	112	0.2	88	0.2	17	0.2	17	0.2	129	0.2	105	0.2
Puerto Rican	320	0.7	218	0.5	123	1.2	93	1.2	443	0.8	311	0.7
Sub-total	1165	2.5	(900)	(2.3)	494	4.7	(363)	(4.6)	1659	2.9	(1263)	(2.7)
Asian	3,110	6.6	2,564	6.4	951	9.0	755	9.7	4061	7.0	3,319	7.0
Other Hispanic	686	1.5	581	1.5	147	1.4	105	1.3	833	1.4	686	1.4
Caucasian	38621	81.8	33,123	83.1	8,142	76.9	6,109	78.1	46,763	80.9	39,232	82.2
Unknown	3638	7.8	2,711	6.8	849	8.0	490	6.3	4487	7.8	3,201	6.1
Total	47,220	100.0	39,879	100.0	10,583	100.0	7822	100.0	57,803	100.0	47,701	100.0

Note: Percentages may not add to 100.0 percent because of rounding.
Source: AAMC Faculty Roster
** Less than 0.1 percent*

SOURCE: Minority Students in Medical Education: Facts and Figures IV. The Association of American Medical Colleges Section for Minority Affairs. 1988.

APPENDIX G

COVER LETTER SENT TO PARTICIPANTS

38 Murray Street

W. Peabody, MA 01960

Dear

I would like to thank you for agreeing to participate in the study that I am conducting on Factors Contributing to the Successful Enrollment, Retention and Graduation of Blacks in Medical School. I hope that the information obtained from this study will be useful to Blacks interested in medicine as well as to admission committees who establish criteria to evaluate Black medical school applicants.

Enclosed is a copy of the interview questions for your review. I look forward to meeting with you on

Sincerely,

Mary E. Bennett

APPENDIX H

WRITTEN CONSENT FORM

A Qualitative Study of Factors Contributing to the Successful Enrollment, Retention and Graduation of Blacks in Medical School

I, Mary E. Bennett, am a graduate student at the University of Massachusetts, in Amherst. The topic of my doctoral research is: "A Qualitative Study of Factors Contributing to the Successful Enrollment, Retention and Graduation of Blacks in Medical School." I will be interviewing physicians, residents and medical students in the third or fourth year of medical school, who are currently residing in the Massachusetts area. You will be one of approximately ten participants.

As a part of this study, you will be asked to participate in one in-depth interview. A list of interview questions has been developed to use during the interview process. The interview will focus on demographic factors, financial issues and medical school indebtedness, obstacles encountered prior and during medical school, the traditional medical school admission criteria as a prediction of success for Black students and factors that you see as contributing to your success in medical school. As a participant you will share your medical school experience. The list of interview questions will not prohibit me from clarifying information or from asking additional questions if necessary. My primary role will be to direct the interview and be an active listener.

My objective will be to analyze the material presented during the interviews. I will also gain an understanding of the factors leading to the successful completion of medical education, from a limited number of individuals who are currently in medical school or individuals who have completed their medical education. As a part of the dissertation I may present case studies based on the interviews as a "profile" using direct quotations or by summarizing the material presented during the interview. I may wish to use the interview material to develop a list of criteria for medical school admission committees to potentially use when evaluating Black candidates. I may also wish to use the interview material for journal articles or presentations, or for educational purposes. Finally, I may wish to write a book based on my dissertation.

The interviews will be audio taped and either transcribed by me or my typist (who will also be committed to maintaining the confidentiality of the participants). Pseudonyms orinitials will be used for the profiles or quotations to preserve the participants identity. All quotations used from the interview process will be an accurate reflection of the information obtained during the interview.

All participants may withdraw from the interview process at any time. Participants may withdraw specific excerpts from the interview if they notify me by the completion of the interviews. Additional written consent will be requested if I want to use the material presented for any other purpose other than what is stated in this form.

In signing this form, you are assuring me that no financial claims will be made on me for the use of the material presented in the interviews. Additionally, you are stating that no medical treatment will be required by you from the University of Massachusetts, should any physical injury result from participating in the interview process.

I, _____, have read the above statement and agree to participate as an interviewee under the conditions stated above.

_____
Signature of Participant

_____
Date

_____
Interviewer

APPENDIX I

INTERVIEW QUESTIONS FOR MEDICAL SCHOOL STUDENTS

Prepared By: Mary E. Bennett

*Adapted from Leserman (1981)

1. Name: _____
(Last) (First) (Middle)

a. Give the name of the medical school you attend or attended.

2. Date of birth:
(Month) (Day) (Year)

3. Sex: ____ Male ____ Female

4. Marital Status: ____Single ____Married ____Separated
____ Divorced ____ Widowed

5. If you are married, did you get married while attending medical school?

_____ Yes _____ No _____ Not Applicable

6. Do you have any children? _____ Yes _____ No

7. What is your racial or ethnic background? (Please be specific.)

_____ Black _____ White _____ Hispanic

_____ Other _____

8. What religious group were you born into? (Please be specific.)

____ Protestant ____ Catholic ____ Jewish ____ None

____ Other _____

9. How much signficance does religion play in your life?

____ Very Much ____ Some ____ A Little ____ None

10. Which of the following areas best describes the place where you grew up?

a. _____ A rural area (farm, country)

b. _____ A small city or town less than 50,000

__Mainly Black __Racially Mixed __Mainly White

c. _____ A large urban city over 250,000

__Mainly Black __Racially Mixed __Mainly White

d. _____ A surburban area from 50,000 to 250,000

__Mainly Black __Racially Mixed __Mainly White

11. What is the name of the high school which you graduated from?

_____

12. What was your major course of study during high school?

_____

a. Which mathematic and science courses did you take in high school?

_____

13. Do you feel that your high school preparation adequately prepared you for college?

_____ Yes _____ No

14. What type of guidance counseling did you receive in high school?

____ A Little ____ Some ____ A Great Deal ____ None

a. Did your guidance counselor assist you in getting into college?

_____ Yes _____ No

15. Which college or university did you do most of your undergraduate training?

_____

16. Was it a public or private college or university?

_____ Public _____ Private

17. What was your major course of study in college?

_____

a. What area is your undergraduate degree in?

_____

b. What was your grade point average in undergraduate school?

_____

18. When/where did you take your pre-medical requirements?

_____

a. What grades did you receive in the following courses?

Biology _____

Chemistry _____

Physics _____

19. What is the highest level of education attained by your father?

Grade School								High School				College				Postgraduate			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20 (and over)

20. What is the highest level of education attained by your mother?

Grade School								High School				College				Postgraduate			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20 (and over)

21. What is the highest level of education attained by your siblings?

Grade School								High School				College				Postgraduate			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20 (and over)

22. What is the highest level of education attained by your grandparents?

Grade School								High School				College				Postgraduate
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17 18 19 20 (and over)

23. What is the highest level of education attained by your spouse?

Grade School								High School				College				Postgraduate
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17 18 19 20 (and over)

24. What is/was your father's occupation?

_____

a. Was he employed by himself or someone else?

_____ Self _____ Someone Else

25. What is/was your mother's occupation?

_____

a. Was she employed by herself or somone else?

_____ Self _____ Someone Else

26. What roughly is/was your family income?

_____ Under $10,000

_____ $10,000 to $20,000

_____ $20,000 to $30,000

_____ $30,000 to $40,000

_____ $40,000 to $50,000

_____ $50,000 to $60,000

_____ $60,000 to $70,000

_____ $70,000 or Above

27. Do you have any family members in the medical profession or other health field?

Relationship To You: _____

Specific Field: _____

28. Did they have any influence on your decision to become a physician?

_____ Yes _____ No

Explain: _____

_____

_____

29. Were there any other physicians other than family who influenced your decision to become a physician?

_____ Yes _____ No

Explain: _____

_____

_____

30. At what age did you decide to become a physician?

_____ Years Old

31. What factors influenced your decision to become a physician?

_____

_____

_____

32. Did you work in any other occupation or profession prior to entering medical school?

_____ Yes _____ No

If yes, which occupation? _____

33. What score did you receive on your Medical College Admissions Test (MCAT)?

Science Knowledge:

Biology _____ Chemistry _____ Physics _____

Science Problems Skills Analysis:

Reading _____ Quantitative _____

34. Do you feel that your MCAT scores reflect your true ability?

_____ Yes _____ No

Explain: _____

_____

_____

35. Did you take your MCAT's more than once?

_____ Yes _____ No

36. Did you take a MCAT preparatory course prior to taking your MCAT's?

_____ Yes _____ No

If yes, did you find the course helpful to you?

_____ Yes _____ No

37. Were you accepted to medical school on your first pursuit?

_____ Yes _____ No

38. What obstacles, if any, did you meet with as a Black male/female pursuing a medical education?

_____

_____

_____

39. Do you feel that the obstacles were the same or different for your male/female counterpart pursuing a medical education?

_____

_____

_____

40. What will the total cost of your medical education be?

_____

_____

_____

a. How extensive do you expect your debts to be by the time you complete your medical education?

_____

_____

41. How are you financing your medical education?

_____

_____

_____

42. What types of support systems have been available to help you while pursuing your medical education?

_____

_____

_____

43. What types of support systems might have better helped you that were unavailable?

_____

_____

_____

44. Have the medical school faculty been supportive of you?

_____ Very Much _____ Very Little _____ Not At All

45. Would you say that the medical school faculty have been fair in their grading?

_____ Always Fair _____ Mostly Fair _____ Rarely Fair

46. Have you had any Black faculty during your medical school training?

Science Courses: _____

Clinical Area: _____

a. Did you find them helpful in your achieving success in medical school?

_____ Very Helpful _____ A Little Helpful

_____ Not Helpful At All

b. Did they serve as role models/mentors for you in medical school?

_____

_____

47. What specific factors would you say have most contributed to you being accepted and retained in medical school?

_____

_____

48. What role did or do your parents continue to play in your acceptance to and continued success in medical school?

_____

_____

49. Is there a Minority Affairs Office in your medical school?

_____ Yes _____ No

If yes, what role if any do they play in your success in medical school?

_____

_____

a. Do you utilize any services from this office?

_____ Yes _____ No

If yes, which services do you utilize?

_____

_____

50. My research has shown that Blacks are underrepresented in medical education and the medical profession.

a. Can you give any reasons why there are so few Blacks in medicine?

_____

_____

_____

b. What is your feeling about the role of Blacks in medicine?

_____

_____

_____

51. What field or type of practice do you see yourself working in once you have completed your medical education?

_____ Research:

_____ Clinical Research

_____ Medical Laboratory Research

_____ Medical School Faculty

_____ Internal Medicine

_____ Surgery

_____ Pediatrics

_____ Obstetrics/Gynecology

_____ Psychiatry

_____ Pathology

_____ Radiology

_____ Family Practice

_____ Public Health Medicine

_____ Physician Seeking Political and Social Change in Medicine

52. What type of practice location do you see yourself working in?

_____ Rural Area

_____ Small City

_____ Suburbs

_____ Large City (inner-city, ghetto area)

_____ Large City (non-ghetto area)

53. Do you feel that your medical school indebtedness will influence you?

Type of Practice: _____

_____ Yes _____ No

Practice Location: _____

_____ Yes _____ No

54. How much money do you invision yourself making after you complete your medical education?

_____ Under $25,000

_____ $25,000 to $35,000

_____ $35,000 to $45,000

_____ $45,000 to $55,000

_____ Over $55,000

55. Would you recommend medical school to other young Black men/women?

_____ Yes _____ No

56. What type of advice would you give to them?

_____

_____

_____

_____

Thank you.

APPENDIX J

INTERVIEW QUESTIONS FOR PHYSICIANS

Prepared By: Mary E. Bennett

*Adapted from Leserman (1981)

1. Name: _____
(Last) (First) (Middle)

a. Give the name of the medical school you attend or attended.

_____

2. Date of birth:
(Month) (Day) (Year)

3. Sex: ___ Male ___ Female

4. Marital Status: ___ Single ___ Married ___ Separated
___ Divorced ___ Widowed

5. If you are married, did you get married while attending medical school?

___ Yes ___ No ___ Not Applicable

6. Do you have any children? ___ Yes ____ No

7. What is your racial or ethnic background? (Please be specific.)

___ Black ___ White ___ Hispanic

___ Other_____

8. What religious group were you born into? (Please be specific.)

___ Protestant ___ Catholic ___ Jewish ___ None

___ Other_____

9. How much signficance does religion play in your life?

___ Very Much ___ Some ___ A Little ___ None

10. Which of the following areas best describes the place where you grew up?

a. ___ A rural area (farm, country)

b. ___ A small city or town less than 50,000

__Mainly Black __Racially Mixed __Mainly White

c. ___ A large urban city over 250,000

__Mainly Black __Racially Mixed __Mainly White

d. ___ A surburban area from 50,000 to 250,000

__Mainly Black __Racially Mixed __Mainly White

11. What is the name of the high school which you graduated from?

_____

12. What was your major course of study during high school?

_____

a. Which mathematic and science courses did you take in high school?

_____

13. Do you feel that your high school preparation adequately prepared you for college?

___ Yes ___ No

14. What type of guidance counseling did you receive in high school?

___ A Little ___ Some ___ A Great Deal ___ None

a. Did your guidance counselor assist you in getting into college?

___ Yes ___ No

15. Which college or university did you do most of your undergraduate training?

_____

16. Was it a public or private college or university?

___ Public ___ Private

17. What was your major course of study in college?

_____

a. What area is your undergraduate degree in?

_____

b. What was your grade point average in undergraduate school?

_____

18. When/where did you take your pre-medical requirements?

_____

a. What grades did you receive in the following courses?

Biology_____

Chemistry_____

Physics_____

19. What is the highest level of education attained by your father?

Grade School								High School				College				Postgraduate			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20 (and over)

20. What is the highest level of education attained by your mother?

Grade School								High School				College				Postgraduate			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20 (and over)

21. What is the highest level of education attained by your siblings?

Grade School								High School				College				Postgraduate			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20 (and over)

22. What is the highest level of education attained by your grandparents?

Grade School								High School				College				Postgraduate			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20 (and over)

23. What is the highest level of education attained by your spouse?

Grade School								High School				College				Postgraduate			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20 (and over)

24. What is/was your father's occupation?

_____

a. Was he employed by himself or somone else?

___ Self ___ Someone Else

25. What is/was your mother's occupation?

_____

a. Was she employed by herself or somone else?

___ Self ___ Someone Else

26. What roughly is/was your family income?

___ Under $10,000 ___ $40,000 to $50,000

___ $10,000 to $20,000 ___ $50,000 to $60,000

___ $20,000 to $30,000 ___ $60,000 to $70,000

___ $30,000 to $40,000 ___ $70,000 or Above

27. Do you have any family members in the medical profession or other health field?

Relationship To You:_____

Specific Field:_____

28. Did they have any influence on your decision to become a physician?

___ Yes ___ No

Explain:_____

_____

_____

29. Were there any other physicians other than family who influenced your decision to become a physician?

___ Yes ___ No

Explain:_____

_____

_____

30. At what age did you decide to become a physician?

___ Years Old

31. What factors influenced your decision to become a physician?

_____

_____

_____

32. Did you work in any other occupation or profession prior to entering medical school?

___ Yes ___ No

If yes, which occupation?_____

33. What score did you receive on your Medical College Admissions Test (MCAT)?

Science Knowledge:

Biology ____ Chemistry ____ Physics ____

Science Problems Skills Analysis:

Reading ____ Quantitative ____

34. Do you feel that your MCAT scores reflect your true ability?

___ Yes ___ No

Explain:_____

_____

_____

35. Did you take your MCAT's more than once?

___ Yes ___ No

36. Did you take a MCAT preparatory course prior to taking your MCAT's?

___ Yes ___ No

If yes, did you find the course helpful to you?

___ Yes ___ No

37. Were you accepted to medical school on your first pursuit?

___ Yes ___ No

38. What obstacles, if any, did you meet with as a Black male/female pursuing a medical education?

_____

_____

_____

39. Do you feel that the obstacles were the same or different for your male/female counterpart pursuing a medical education?

_____

_____

_____

40. What was the total cost of your medical education be?

_____

_____

_____

a. How extensive were your debts when you completed your medical education?

_____

_____

41. How did you finance your medical education?

_____

_____

_____

42. What types of support systems were available to you in medical school?

_____

_____

_____

43. What types of support systems might have better helped you that were unavailable?

_____

_____

_____

44. Were the medical school faculty supportive of you during your medical training?

___ Very Much ___ Very Little ____ Not At All

45. Were the medical school faculty fair in their grading?

___ Always Fair ___ Mostly Fair ____ Rarely Fair

46. Did you have any Black faculty during your medical school training?

Science Courses:_____

Clinical Area:_____

a. Did you find them helpful in your completing medical school?

___ Very Helpful ___ A Little Helpful

____ Not Helpful At All

b. Did they serve as role models/mentors to you in medical school?

_____

_____

c. Do you see yourself as a role model/mentor for Black youth____ medical students____ ?

47. What factors contributed to your success in medical school?

_____

_____

48. What attributes do you feel are necessare for success in medical school?

_____

_____

49. What role did your parents play in your success in medical school??

_____

_____

50. Was there a Minority Affairs Office in your medical school?

___ Yes ___ No

If yes, what role if any did this office play in your success in medical school?

_____

_____

51. My research has shown that Blacks are underrepresented in medical education and the medical profession.

a. Can you give any reasons why there are so few Blacks in medicine?

_____

_____

_____

b. What is your feeling about the role of Blacks in medicine?

_____

_____

_____

52. What field or type of practice do you have?

_____

53. What type of practice location do you work in?

___ Rural Area ___ Large City (inner-city, ghetto area)

___ Small City ___ Large City (non-ghetto area)

___ Suburbs

54. Did your medical school indebtedness influence your choice of:

Type of Practice:_____

___ Yes ___ No

Practice Location:_____

___ Yes ___ No

55. As a student how much money did you invision yourself making as a physician?

___ Under $25,000

___ $25,000 to $50,000

___ Over $50,000

56. Have you realized your financial expectations?

___ Yes ___ No

57. What role if any do you feel you should play in bringing equity for Blacks into medical education or the medical profession?

_____

_____

_____

_____

58. Are you on the faculty of a medical school?

___ Yes ___ No

If yes, which medical School?

_____

59. Do you see a need for Black physicians to participate in policy decisions that impact in the future health of Blacks on local, state and federal levels?

___ Yes ___ No

60. Have you done any work in the community?

___ Yes ___ No

If yes, what have you done?

_____

_____

_____

_____

If no, do you feel that this is something that you should be doing?

___ Yes ___ No

Thank you.

APPENDIX K

INTERVIEW QUESTIONS FOR MEDICAL SCHOOL FACULTY MEMBER

Prepared By: Mary E. Bennett

1. Name: _____
(Last) (First) (Middle)

2. Which medical school are you currently on the faculty of?

_____

3. Sex: ___ Male ___ Female

4. What is your racial or ethnic background? (Please be specific.)

___ Black ___ White ___ Hispanic

___ Other _____

5. What is your area of specialization?

_____

a. Are you an M.D.? ___ Yes ___ No

b. Are you an Ph.D.? ___ Yes ___ No

c. Do you have a practice? ___ Yes ___ No

If yes, what type of practice? _____

6. Are you a tenured faculty member?

___ Yes ___ No

7. Do you feel that you have a responsibility towards Black students which is above and beyond your job description?

___ Yes ___ No

If yes, please explain? _____

_____

_____

8. Do you have a heavy advising load?

___ Yes ___ No

9. Do you serve on the medical school admissions committee?

___ Yes ___ No

If yes, do you have decision making authority on this committee?

___ Yes ___ No

10. What course/courses do you teach?

Science Courses: _____

_____

Clinical Areas: _____

_____

11. Do you see yourself as a role model/mentor to Black medical students?

___ Yes ___ No

If yes, how significant do you see the role in relationship to their retention and graduation from medical school?

_____

_____

_____

12. How academically prepared do you find Black medical students?

___ Very Prepared ___ Moderately Prepared

___ Poorly Prepared

13. What factors do you see as contributing to the success of Black medical school students?

_____

_____

_____

14. Do you feel that high academic credentials are a requirement for Black students to succeed in medical school?

_____

_____

15. What non-traditional criteria would you recommend to medical school admissions committee members?

_____

_____

_____

16. Do you see a decline in Black medical student enrollment?

___ Yes ___ No

a. What factors does the cost of medical education play in Black enrollment?

_____

_____

_____

17. What role, if any, do you feel you should have in bringing equity for Blacks into medical education or the medical profession?

_____

_____

_____

18. Do you see a strengthening or weakening of medical school commitment to Black enrollment, retention and graduation from medical school?

_____

_____

_____

19. Do you see a need for Black physicians or Black faculty to participate in policy decisions that impact on the future health of Blacks on local, state and federal levels?

___ Yes ___ No

If yes, in what capacity? _____

_____

_____

_____

Thank you.

APPENDIX L

MEDICAL SCHOOLS ATTENDED BY PARTICIPANTS

Boston University School of Medicine

Brown University Program in Medicine

Cornell University Medical College

Case Western Reserve University School of Medicine

Harvard Medical School*

Meharry Medical College School of Medicine**

Tufts University School of Medicine

University of Illinois College of Medicine

University of Medicine and Dentistry of New Jersey Robert Wood Johnson Medical School (formerly Rutgers Medical School)

University of Pennsylvania School of Medicine

*More than one participant attended this institution.
**One participant spent first 2 years at traditionally Black medical school and last 2 years at traditionally White medical school.

APPENDIX M

UNDERGRADUATE INSTITUTIONS OF HIGHER EDUCATION

Tougaloo College Mississippi*

Brown University

Northwestern University

Massachusetts Institute of Technology*

Oakwood College

Northeastern University

Wesley University

Harvard University

*More than one participant attended this institution.

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