Aging and Health: African American Elders
Second Edition

Julee Richardson, Ph.D.

Includes summaries of available research findings for African American elders. Topics include mortality and morbidity, cardiovascular diseases, diabetes, access and health care utilization, health beliefs and practices, and religion and the church as a caregiving institution.

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PREFACE TO THE SECOND EDITION

Those of us at Stanford Geriatric Education Center (SGEC) are pleased to present this Second Edition of Dr. Richardson’s review of the available literature bearing on the health of older African Americans. Since the completion of the first edition of the review in 1990, the literature that even then was massive has grown substantially making it necessary to increase the review from 69 to 98 pages. In addition to updating the literature on morbidity and mortality, barriers and use of health care services, Dr. Richardson has added several new subject areas, including a section on ethics and caregiving and expanded reviews of the blossoming literature on utilization of surgical and other procedures.

We would like to thank not only our colleague and SGEC Core Faculty member, Julee Richardson, for her hard work and insight that she contributed to this second major resource, but also to our other colleague who has supported the production of this review with such dedication. Merry Lee Eilers, MA, Information Specialist of the Stanford Geriatric Education Center (SGEC), has been a major contributor by her diligence in obtaining the literature and helping to see that the references are correct.

It is our hope that this review will be useful to faculty, researchers, clinicians, and students in health risks. We would be delighted to have comments on the review or suggestions for other resources that would be helpful.

September 1996

Gwen Yeo, PhD, Director
Stanford Geriatric Education Center

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# AGING AND HEALTH: AFRICAN AMERICAN ELDERS
Second Edition

by

JULEE RICHARDSON, PHD

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The purpose of this paper is to examine the literature on the physical health of elderly blacks from 1980 to the present. The paper developed originally out of the need for health care training curricula specific to black elders. Portions of the review cover health issues of "older" blacks (defined in this paper as aged 55-64) because of the extensive literature specific to this age group which has been stimulated by observed racial differences in their morbidity and mortality. A further rationale for including data on this population is the evidence that social and behavioral determinants earlier in the life cycle impact upon physical health in old age. The category of African American elders as used in this paper refers to a racial group age 65 and older who has both extensive cultural and social class diversity.

The review examines the assumptions upon which the research has been based. The primary focus is the sociocultural, psychosocial, epidemiological, behavioral, and environmental concerns affecting the health of African American elders. The paper does not deal extensively with clinical manifestation, pathophysiology, and the consequence of treatment intervention, although in some instances they are also included. A review of the mental health issues affecting older black Americans is not included since the physical health literature was so massive in itself. This in no way is meant to imply, however, that depression and other mental health concerns are not important to the overall health status of black elders. The goal of this review has been to provide the data in a way that will be helpful to health care trainees in the delivery of their services to black elders. It is specifically aimed at helping service providers: (a) identify the assumptions upon which treatment is based; (b) evaluate the appropriateness of these assumptions; (c) clarify who among the black elderly population is prone to certain health risks; and (d) help patients prioritize
their individual health needs while recognizing the resources these elders may have for coping with illness and frailty. Although the attempt in this review has been to be thorough, there may be omissions of critical articles.

A macrohistorical perspective of the current cohort of black elders is presented in Part I to provide clinicians with some of the social and political change experienced by black elders over their life course (F. M. Baker, 1982). This cohort analysis is included to highlight the fact that future cohorts of black aged will be quite different. For some, diseases like systemic lupus and sickle cell anemia will have been life long chronic conditions. There will be entire populations of future black aged who will have spent much of their life time as uninsured consumers of health care. Others will have used only Medicaid/MediCal, while some elders will have experienced the continuity and quality of care afforded to those of higher socioeconomic status regardless of race. Similar to those aged before them, the black elders of the future will bring to the health care setting attitudes and behaviors based upon significant historical experiences with the health care system and policies developed during their life time.

In Part II the focus is morbidity/mortality, physical functioning, and health care, with specific attention to the major health risks most often cited in the literature. The issues these topics raise are discussed at length. Included are chronic diseases which pose major health concerns for elders. There is also an overview of health care utilization, medication use, assessment, and clinical care. In addition to the topics in the first review this second edition includes a section on glaucoma and cataracts, health promotion, and a limited discussion of ethics. An update of the literature in most of the major topic areas helps complete this review.

Health beliefs and practices observed in black elders are varied, complex, and both similar and dissimilar to whites. Part III reviews findings on the observed attitudes and practices among some specific populations of blacks, (e.g., poor, rural and Southern blacks). These groups are not illustrative of all older blacks, and are not meant to negate the heterogeneity within the population of black elders. The discussion of social supports, caregiving and the family will provide research findings on some of the helping networks upon which frail black elders may find themselves dependent.

Since this paper is part of a collection focusing on ethnogeriatrics, the task has been to present key differences between racial groups relevant to health (e.g., social class distribution), recognizing that black Americans by virtue of race and a unique place in U.S. history, do not always fit the conceptual framework of ethnicity, which includes factors such as language and assimilation, important to other ethnic and racial groups who have immigrated (some fairly recently) to the U.S.. To the extent that the categorizations presented for black elders and health beliefs may not always fit the readers’ knowledge of individuals or groups, the writer offers this explanation.
Black elders are a heterogeneous population (F. M. Baker, 1982; Federal Council on Aging, 1979; Fujii, 1980; Gibson & J. S. Jackson, 1987; J. J. Jackson, 1977). Although there are generalizations made about the health conditions and practices of black elders, this does not preclude their diversity. It would be contrary to the purpose of this review if the reader were to adopt the erroneous expectation of a "typical" black elder. Among blacks many within-group differences exist including health status, risks, beliefs, and methods of coping. By recognizing this heterogeneity, we decrease the risk of fostering simplistic cultural pejoratives.

Cohort Analysis

Recognizing that each black elder is unique and has his/her own microhistory and individuality, these elders do, however, share significant historical events which, from a macrohistorical perspective, have helped shape their attitudes and behaviors (F. M. Baker, personal communication, Texas, 1990). Black elders have experienced to a greater or lesser degree racism, war, upward social mobility, gentrification and an escalation of urban crime.

For example, the black elder who is now 80 in 1996 was age 5 in 1921 and no doubt overheard adult conversation describing the Red Summer in which black soldiers returning from WWI were violently attacked and hanged (F. M. Baker, 1982). These elders lived through the times of W. E. B. DuBois, Marcus Garvey and the Harlem Renaissance. During the 1940s, in their 20s, some of these elders served in WWII with racially segregated military units. Many black females had the opportunity to trade their mops and buckets, pots and ladles, wash tubs and irons for employment in munitions factories located in the urban North (F. M. Baker, 1982), although this was not their first opportunity for war-related employment. These black elders have experienced racial segregation, and they have applauded trailblazers like Jackie Robinson, Marion Anderson and Adam Clayton Powell. Many have been leaders to black youth engaged in the historic Civil Rights movement (F. M. Baker, 1982) and others have mourned the loss of sons and daughters to Vietnam and an illegal drug culture. Today some may find themselves rearing grandchildren and great-grandchildren amidst widening gaps between "old knowledge" and "new technology" because their children are substance abusers who are unable to care for their offspring. Second-time-around parenting under these circumstances is fraught with caregiving issues that impact upon the physical and emotional health of the grandmother caregivers (Minkler & Roe, 1993).

According to F. M. Baker (1982), black elders in the late 1980s and 90s face a resurgence of racial prejudice, economic recession/depression, and increasing conservatism within the U.S. similar to that observed during their adolescence in the 1930s. Historically, many contemporary black elders were forced to use a racially segregated mainstream health care system (F. M. Baker, 1982) that was sometimes free and not necessarily inferior. For some black elders, today's health care is

Demographic Overview

The older black population is increasing at a faster rate than the older white population, and black elders constitute an increasingly greater proportion of the total aged population (R. N. Butler, 1989; Manuel, 1988). In 1990 there were 2.5 million blacks aged 65 years and older comprised of 1.5 million females and 1.0 million males (National Caucus & Center on Black Aged, Inc. [NCCBA], 1992; U.S. Bureau of the Census & Spencer, 1989). This represents 8 percent of the total black population. Projections indicate that by 2020, older blacks will make up 8.6 percent of the total U.S. population age 65 and older and 9.6 percent of this population by 2050 (NCCBA).

The most significant percentage increase in the elderly population for both blacks and whites is among the old-old (age 85 and older) (Manuel, 1988) which, in the future, will be more densely comprised of females (J. J. Jackson & Perry, 1989; Manuel, 1988). During the 1980s there have been increases in female preponderance, the largest of which occurred among cohorts 70 and over (J. J. Jackson & Perry). This increased female prevalence reflects the growing longevity gaps between females and males (J. J. Jackson & Perry). According to Havlik and Suzman (1987) black females who survive to age 85 will have the longest life expectancy for males and females of both racial groups.

Increasingly, health care professionals can expect to see greater numbers of black females who, according to Manuel (1988), will reflect the psychological and socioeconomic problems inherent to widowhood and singlehood in later years. Future aging populations can be expected to place increasing demands on the health care system. Although it is assumed that future cohorts of white elders will be in better physical health, we are uncertain to what degree this will be true for future cohorts of black elders. There are those who suggest that there will be little, if any, change due to societal inequities (Watson, 1986).

Since the late 1970s there has been a widening gap between the poverty rates of black and white elders (Center on Budget and Policy Priorities, 1988). The 1988 data show that approximately 32 percent of the black elderly population were below the poverty level as compared to 10 percent for whites and 22 percent for Hispanics (U.S. Bureau of the Census & Spencer, 1989). The 1990 data show that 33.8 percent of African American elders were poor (Fein, 1993; NCCBA, 1992).

Black male elders in 1990 had a median income of $7,450, a decrease from the median income in 1989 of $7,617. The median income for females in 1990 was
$5,617, a figure that falls below the poverty index (NCCBA, 1992). The proportion of African American elders receiving SSI decreased from 19.0 percent in 1986 to 18.0 percent in 1990 while, at the same time the proportion living in poverty increased from 31.0 percent to 33.8 percent (poverty index below $6,268 for an individual, $7,905 for a couple [NCCBA, 1992]).

**Table 1**

<table>
<thead>
<tr>
<th></th>
<th>Total Population</th>
<th>Number</th>
<th>Poor</th>
<th>Percent Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>957 (38.4%)</td>
<td>297</td>
<td>131</td>
<td>44.0</td>
</tr>
<tr>
<td>Females</td>
<td>1,535 (61.6%)</td>
<td>621</td>
<td>373</td>
<td>60.1</td>
</tr>
</tbody>
</table>


Throughout this review the data will show a strong relationship between low income and disease incidence. In fact, poverty is a major factor in disease mortality and morbidity. It may play an even greater role than race (Boring, Squires, & Heath, 1992; Freeman, 1991) or other factors.

Limited financial resources will also determine the health services purchased by the near poor who do not qualify for Medicaid/MediCal programs. In the future we can anticipate that increased numbers of African American elders will be competing in the medical marketplace for services no longer available to them because of escalating health care costs and decreased federal funds for elder health care programs.
PART II
MORTALITY/MORBIDITY AND HEALTH CARE

Overview

The life expectancy of blacks is shorter than whites, and it is not projected to reach that of whites until 2080 (U.S. Bureau of the Census & Spencer, 1989). Life expectancy for black males in 1990 is 67.7 years compared with 72.7 years for white males. Black females have a life expectancy of 75 years versus 79.6 years for white females (U.S. Bureau of the Census & Spencer). There is roughly a 30 year lag in the benefits of increased health technology as it impacts upon increased longevity in the black population (Report of the Secretary's Task Force on Black & Minority Health ["Report of the Secretary's Task Force"], 1985).

Between 1979 and 1984, the major causes of death in middle-aged and elderly U.S. blacks (40 to 85+) varied by age and gender (J. J. Jackson & Perry, 1989). The three leading causes of death (not in rank order) for females age 40 and older as well as males age 55 and older were diseases of the heart, cancer, and cerebrovascular diseases (J. J. Jackson & Perry). However, for middle-aged black males 40 to 49, the five leading causes of death (in descending order) were diseases of the heart, cancer, homicide and legal intervention, accidents and their adverse effects, and chronic liver disease and cirrhosis (J. J. Jackson & Perry). Essentially, blacks die of the same diseases as whites but at an earlier age and there is evidence to indicate that improvements in life expectancy for both groups will result in a greater pool of disabled elders (Chirikos & Nestel, 1985).

Longitudinal data from the Evans County Study of cardiovascular disease in subjects ages 40 to 74 indicate a black/white mortality crossover for black males at age 73 and females at age 85 (Wing, Manton, Stallard, Hames, & Tyroler, 1985). Should blacks live to reach these ages they may, on an average, expect a remaining lifetime that is longer than that of their white counterparts. As yet, there is no adequate explanation for this phenomenon, although the selective effects of high early mortality, differences in age-related chronic disease risks, protective factors (Wing et al.), and socioeconomic status have been offered (Markides & Machalek, 1984). The age at which the mortality crossover occurs has increased within the past few decades which tends to support a social vs. genetic causality (J. J. Jackson & Perry). It has also been argued that the crossover is an artifact of the data with increasing evidence from more recent death rates which show that it is disappearing (J. J. Jackson & Perry). Age-adjusted death rates for the 20 years covered by the Evans County Study show black males with the highest mortality followed by white males, black females and white females (Wing et al.). Overall patterns of black male and female mortality were more similar than in whites (Wing et al.). According to Manton (1982), the lack
of mortality convergence between the races is due more to the rapid health improvement among whites than a lack of improvement among blacks.

Gornick et al. (1996) would argue that the documented differences in black and white mortality, as shown in their study of 26.3 million Medicare beneficiaries in 1993, are more related to race than income. Although African American males made up the smallest group in this sample \( N = 787,403 \), they had the highest mortality rate. There was a relatively small difference between higher income black males \( (\geq \$20,501) \) and the lower income black males \( (\leq \$13,100) \) which were 8.1 per 100 beneficiaries per year vs. 7.7 per 100 beneficiaries per year (Gornick et al.). The mortality rate for African American women \( (N = 1,262,827) \) is quite alarming since the mortality rate (again though relatively small) increased with increased income (Gornick et al.). This pattern may become more significant in future cohorts of upwardly mobile, higher SES black females.

Much of the literature on blacks and health generally follows the same trends as the gerontological literature which focuses on perceived social, environmental, and behavioral weaknesses/deficits rather than the strengths within black populations (Gibson, 1989). Much of the clinical research lacks a multidisciplinary approach; the central focus is racial differences (Anderson & Cohen, 1989) although increasingly the research is beginning to examine diversity within the black elder population.

The decade-old issue of double jeopardy (or the cumulative disadvantage of race and age) as it relates to health disadvantages in later life is still unresolved (Dowd & Bengtson, 1978; Ferraro, 1987, 1989; M. Jackson, Kolody, & Wood, 1982); the same is true to a lesser degree for the concept of "age as a leveler." Both are still evident in the literature. The most recent discussion suggests that health differentials narrow with age (Gibson, 1989; Markides, 1981), failing to support the double jeopardy/health hypothesis (Ferraro, 1987, 1989; J. J. Jackson & Perry, 1989). Longitudinal data are still needed to systematically negotiate this theoretical and conceptual maze (Markides & Mindel, 1987). The literature in this area still falls short of any systematic, comprehensive recent reviews that could perhaps settle the ongoing debates concerning racial differences in mortality and morbidity (J. J. Jackson, 1988).

Overall Functional Level and Disability

Using a subsample of data collected in the early 1980s taken from the National Survey of Black Americans (NSBA), and the Three Generational Black Family Study (TGBFS) of 734 noninstitutionalized black Americans ages 65 to 101 years, Gibson and J. S. Jackson (1987) found a wide range of physical functioning from the extremely able to the extremely disabled. In this black-specific study of self-reported physical health and functional limitations, the probability of disability was not a straightforward linear progression, nor was age a strong determinant of physical
functioning (Gibson, 1991; Gibson & J. S. Jackson). The significant predictors of functional limitation were self-reports of physical health status, recent levels of stress-distress, and income. There were no gender differences in factors explaining physical functioning (Gibson & J. S. Jackson). It should be noted, however, that more objective measures of physical health could have resulted in different findings (Gibson & J. S. Jackson).

There is a direct relationship between functional impairment and early retirement (Stanford, Happersett, Morton, Molgaard, & Peddecord, 1991). In a community-based sample of whites, blacks, and Mexican Americans in San Diego County ages 45-64, functional impairment was higher for subjects electing early retirement regardless of race or ethnic group (Stanford et al.).

Elders between the ages of 65 and 74 were found to be the most disabled, and, as a whole, represented a more debilitated younger group than the 75 to 79 year olds who were the least disabled and more robust (Gibson, 1991; Gibson & J. S. Jackson, 1987). Of the older groups, the highest probability of physical limitation and disability was found in the 80 to 84 year old group rather than in the 85 and over age group. Gibson and J. S. Jackson note that 40 percent of the 80 and over group reported being slightly or not at all limited in their activities. The elders found most likely to be extremely functionally limited lived in the South, and were 80 to 84 years of age. Their emotional support came from family, friends, and church members. For black elders reporting difficulty with activities of daily living (ADL) and instrumental activities of daily living (IADL), actual need is a major determinant in the use of community-based services such as meals programs, transportation, and senior centers (Kart, 1991). In general however, blacks in this cross-sectional study age 55 and over were not found to be significant users of these community-based services (Kart). Gibson and J. S. Jackson’s discussion of the American’s Changing Lives data set from the University of Michigan Institute of Social Research suggests to the writer that within-group health comparisons of black elders reveal a more positive view than has been assumed in most black/white comparisons. (See J. S. Jackson, Chatters, & R. J. Taylor, 1993, in Section III: Health, Social Functioning and Well-Being).

Chirikos and Nestel (1985) found in a longitudinal study (National Longitudinal Surveys of Labor Market Experience) of a national representative sample of 3,518 white males and 1,420 black males aged 45 to 59 (studied first in 1966), that a higher percentage of older black males reported the presence of functional disabilities. At follow-up in 1976 and 1981 the disabilities increased with age for both groups. Functional disabilities were significant predictors of mortality; however, some functional capacities were restored after durations of two years or more. Unfortunately, the data do not allow an analysis of some of the substantive issues of survivorship differences between the two racial groups, nor was there any indication of the type of functional disabilities that were restored.
It is generally accepted that patients tend to report their health more favorably than do their physicians, and poor functioning is significantly associated with poor health perceptions. M. W. Linn, Hunter, and B. S. Linn (1980) examined self-assessed health, impairment and disability in a sample of elders (age 65 and older) from lower middle and lower socioeconomic status (SES). Fifty-three percent of the sample were black, 35 percent white and 12 percent Cuban. Self-reported health status, disability in ADLs, and physician- and interviewer-rated impairment showed the following: (1) disability and self-assessed health were highly correlated in all but the Cuban subjects; and (2) the physician’s assessment/rating had little effect on this relationship except among Cuban subjects. Similarities among the three groups included: (a) medical histories; (b) the five most frequent diagnoses (e.g., arthritis, hypertension, heart conditions, nervous conditions, cataracts); and (c) the proportion of each group that had been admitted to the hospital within a six month period. Whites had undergone more surgery within their lifetime and blacks reported experiencing more pain than the other groups. Their experience with pain may have accounted for greater disability as measured by their performance of ADLs. Physician- and patient-rated health were only minimally correlated for blacks and whites, which was attributed to the fact that both racial groups assessed their health as more favorable than did the physicians. Serious consideration should be given to the implication that health perceptions may affect the use of health care services, compliance, and seeking early intervention for a problem, particularly for elderly patients who perceive themselves as healthy, regardless of their actual medical conditions.

Data from the 1982 Long Term Care Survey, a national sample of community resident Medicare patients reporting long term problems with the ADLs or IADLs, indicate that black elders have a higher proportion of functional and cognitive impairment than white elders (Macken, 1986). According to these data, functional impairments occur at an earlier age. In this study, the category of "all other" races in which black respondents have been included represents only 8.9 percent of the total sample. Persons of unknown race are also grouped into this category. This insufficient sampling of blacks, the non-discrete category of all other races and the exclusion of older blacks not covered by Medicare argue for replication of the study with greater attention to an appropriate black sample.

Guralnik and Kaplan (1989) in a prospective analysis of a subsample taken from the Alameda County Study focus on high level of physical functioning as an indicator of healthy aging. This longitudinal study of 841 elders ages 65-69, with 496 survivors at follow-up 19 years later, indicated that the predictors of high functioning as measured by ADLs, IADLs, exercise, and recreation were: (a) race not black; (b) higher income; (c) absence of hypertension and arthritis; (d) being a non-smoker; (e) moderate body weight; and (f) consuming moderate amounts of alcohol. These data support other evidence on the positive relationship of income to health in elders and the impact of chronic disease on overall health and functioning. In view of the fact that approximately one quarter of the blacks were of low SES, it is important to note that
using measures of exercise and recreational activity as indicators of level of functioning may not be valid for low income blacks whose financial resources and lifestyle do not support time for exercise or recreational activity. More studies are needed on representative samples of blacks from the perspective of healthy aging that examine within-group variations by factors such as sex, income, education, and marital status within an appropriate behavioral context.

Lubben, Weiler, and Chi (1989) examined gender and ethnic/racial differences in ADLs, health practices, and social support among 1,021 very low income blacks, whites, Hispanics and Asians. Subjects in this study were 1982 MediCal recipients age 65 and over. Measurement instruments included items used in the Alameda County Study mentioned above. Controlling for age, education, living arrangements, functional status and income, there were no statistically significant differences in ADL or self-reported health by ethnicity or gender, although there were distinct trends. Using whites as the reference category against which the other groups were compared, the findings indicate that: (a) Hispanics and blacks were most like whites except for Hispanics age 75 and older who were twice as likely as whites to engage in physical activity and younger black elders who were only half as likely as their white counterparts to maintain recommended body weight. Asian elders (65 to 74) generally adhered to more desired health practices than either of the other three groups who were similar. More of this poor elderly population were current smokers (22 percent) than in the U.S. elderly population in general (16 percent), and black and white smoking habits were similar. Findings in this study should not be generalized to elders in higher economic groups, even among the same ethnic/racial groups, and the usefulness of the data is also limited, as it is in many studies, by the fact that whites were used as the reference group.

The data on overall functioning and disability rely upon self-report, and measures of functional disability lack consensus. J. J. Jackson's (1988) overview of the Social Determinants of the Health of Aging Black Populations lends insightful observation of the critical conceptual, theoretical and methodological issues in the current research. The issues raised included: (a) the usefulness of excess deaths as a measure of health disparities between blacks and whites; (b) many different research conclusions based upon different measures of physical health and disability; (c) health disparities and ratio-standards models (e.g., comparisons of blacks and whites according to certain prescribed standards) which may exaggerate racial differences leading to assumptions that there should not be a significant difference between blacks and whites in rates of mortality and morbidity; (d) lack of clarity in relationships of health issues to age differences versus age change; and, (e) use and study of small or inadequate samples which limit generalization and increase statistical imprecision. The author concurs that these issues still merit important consideration. In fact, analyzing the data on mortality and health status for age-specific subgroups rather than the 65+ African American elderly as a whole, yields mortality and health differentials that favor whites in younger age groups of the elderly, e.g. 55-64, 65-74,
and African Americans in the older age groups, e.g. 75-84 and 85+ (Gibson, 1994). According to Gibson (1994) further investigation with adequate samples of the oldest age groups is needed, particularly since there does not seem to be the same strength or relationship between age and health in black elders as is true for their white counterparts.

Coronary Disease

Coronary heart disease (CHD) and stroke account for 24 percent of the excess mortality among black males and 41 percent among black females (Morbidity and Mortality Weekly Report [MMWR], 1986). (Excess mortality is defined as the difference between the number of deaths actually observed in the minority population and the number of deaths that would have occurred in that group if both minority and non-minority populations had the same age- and sex-specific death rates). According to Gillum (1982), precise trends in CHD mortality for blacks prior to 1979 are difficult to determine because of reporting techniques which result in underreporting, inaccuracies, and use of the classifications "non-white." Since 1968, however, mortality from CHD appears to have decreased (R. Cooper, 1981; R. Cooper, Steinhauer, W. Miller, David, & Schatzkin, 1981; Gillum & Liu, 1984; Markides & Mindel, 1987) but this decline seems to have slowed for African Americans (R. S. Cooper & Ghali, 1991). Blacks are also more likely to exhibit one or more risk factors (e.g., smoking, overweight, and hypertension) associated with CHD (Curry, Oliver, & Mumtaz, 1984; Langford, Oberman, Borhani, Entwisle, & Tung, 1984; Rowland & Fulwood, 1984) along with higher rates of complications linked with hypertension (Peniston, Swarup, Barnwell, & Crittenden, 1991). The data indicate both interstate and intergenerational differentials in CHD prevalence among blacks (Gillum & Liu, 1984; Leaverton, Feinleib, & Thom, 1984). Although many sources show higher CHD incidence in the black population, Evans County, Georgia data indicate a lower CHD/IHD (ischemic heart disease) incidence and prevalence in blacks than in whites independent of age, total cholesterol levels, smoking, and blood pressure (Heiss et al., 1984).

The hodge podge of literature on CHD presents a contradictory, confusing and insufficient picture (L. Adams, Africano et al., 1984; Garfinkel, 1984; Gillum, 1982). Both CHD prevalence and mortality is higher in African American women than white women and this appears to be true even after age 65 (Garfinkel, 1984; Gillum, 1982; Gillum & Liu, 1984). According to R. S. Cooper and Ghali (1991) some of the distinguishing features of CHD in black females compared to white females is a higher incidence and greater occurrence of angina. Hypertension, diabetes mellitus, and weight are all factors in this greater prevalence (R. S. Cooper, Simmons et al., 1986; Garfinkel, 1984). However, these factors alone did not account for the increased risk of cogestive heart failure in a large HMO sample of African American women ages 40 to 60 years (Alexander, Grumbach, Selby, Brown, & Washington, 1995). Poorer cardiovascular fitness in black females as compared with whites and Hispanics earlier
in the life cycle (Farrell, Kohl, & Rogers, 1987) may have bearing upon this later life CHD prevalence and mortality.

Keil, Loadholt, Weinrich, Sandifer, and Boyle (1984), in a study of coronary heart disease in South Carolinians, found that low SES was associated with a threefold excess risk of CHD in black males and that black females had the highest rate of all types of nonfetal CHD. Historically, many black women have had to be independent and competent and the financial support of the family. The fact that in the past older black females (age 55 and older) had a higher proportion of self-reported nervous breakdowns than either black males or whites of both sexes (J. J. Jackson, 1971) may indicate that there is some psychic cost and perhaps even physical cost for the extreme and varied role demands placed upon them. James (1984b) suggests that the higher rates of CHD in black women than in white women may be related to life circumstances, economics, and coping styles, all of which need to be examined particularly since, higher educational levels appear predictive of lower CHD mortality in the black female population (Keil, Sutherland et al., 1993).

Some of the data suggest higher rates of mortality and acute care discharges from congestive heart failure in blacks than whites. This is in keeping with the greater prevalence of hypertension (Gillum, 1987). In a comparative study of black, Cuban, and Anglo elders, heart problems and hypertension were greatest in the black sample (M. W. Linn et al., 1980). Blacks, however, are less likely than whites to see a heart specialist (Office of Minority Health Resource Center, 1988c). The impact of cigarette smoking on coronary vascular disease mortality and elevated cholesterol is fairly similar for both blacks and whites (Report of the Secretary’s Task Force, 1985). Between 1973-1974 and 1985, Folsom et al. (1987) found changing patterns in the smoking habits of urban blacks which indicate a significant decrease in the number of cigarettes smoked per day. Dissimilarities appear upon examining the incidence of electrocardiographic abnormalities predictive of coronary heart disease, which show a greater incidence of these abnormalities in blacks (Report of the Secretary’s Task Force on Black & Minority Health ["Report of the Secretary’s Task Force"], 1986). The data also indicate a low incidence of coronary disease in high SES black populations (Keil, Loadholt et al., 1984) and no significant difference between blacks and whites in coronary mortality rates (Keil, Sutherland et al., 1993).

The literature continues to indicate that rates of coronary artery bypass surgery differ by race and that African Americans are underusers of invasive diagnostic and surgical treatment such as coronary angiography and coronary bypass (Cooper & Ghali, 1991; Giles, Anda, Casper, Escobedo, & H. A. Taylor, 1995; Goldberg, Hartz, Jacobsen, Krakauer, & Rimm, 1992; Johnson, Lee, Cook, Rouan, & Goldman, 1993; Maynard, Fisher, Passamani, & Pullum, 1986; McBean & Gornick, 1994; Oberman & Cutter, 1984; Peniston et al., 1991; N. A. Scott et al., 1994; Tunis, Bass, Klag, & Steinberg, 1993; Wenneker & Epstein, 1989). These differences in cardiac procedures exist even when patients from both racial groups experiencing myocardial infarctions
present equally to hospitals with high technology cardiac services (Blustein & Weitzman, 1995).

The data are disturbing to the degree that they suggest differences in treatment recommendations, as evidenced in the Coronary Artery Surgery Study (CASS). For this non-randomized group of subjects with coronary disease, coronary artery bypass was recommended for 46.5 percent of blacks and 59.5 percent of whites (Maynard et al.). Race was a significant predictor of recommended therapy, and the difference in treatment was not due to clinical manifestations. No explanation is given for these findings (Maynard et al., 1986). Wenneker and Epstein (1989) note that blacks in their study who received invasive treatment were receiving care from physicians in training, rather than from senior staff, which may have been a factor in the treatment decisions.

Medicare beneficiary data in 1986 and 1992 indicate that fewer black beneficiaries undergo cardiac operations, e.g. coronary angioplasty and coronary artery bypass graft surgery, than their white counterparts. However, during this six year period of heightened utilization, rates for invasive cardiac procedures did increase at a faster pace for blacks than whites. Future comparisons of these data will be needed to determine if this seemingly increased utilization will continue over the next decade (McBean & Gornick, 1994) and for future cohorts of blacks. (See Table 2).

Table 2
Number and Rates of Heart Procedures for Medicare Beneficiaries 65+ by Race: 1986 and 1992

<table>
<thead>
<tr>
<th>Procedure and Race</th>
<th>1986 Rate per 1,000 Enrollees</th>
<th>1992 Rate per 1,000 Enrollees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiac Catheterization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>226,381 9.52</td>
<td>409,074 16.19</td>
</tr>
<tr>
<td>Black</td>
<td>9,924 4.97</td>
<td>23,539 11.05</td>
</tr>
<tr>
<td>Coronary Angioplasty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>31,433 1.32</td>
<td>125,610 4.98</td>
</tr>
<tr>
<td>Black</td>
<td>839 0.42</td>
<td>4,703 2.21</td>
</tr>
<tr>
<td>Coronary Artery Bypass Graft</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>68,753 2.89</td>
<td>121,020 4.79</td>
</tr>
<tr>
<td>Black</td>
<td>1,620 0.81</td>
<td>3,920 1.85</td>
</tr>
</tbody>
</table>

Note: Only medicare enrollees 65+ who were not members of an HMO are included. Source: McBean and Gornick, 1994
Some of the explanations which have been offered for these differences in therapeutic management include: (a) SES; (b) costs of Medicare deductibles, copayments and out-of-pocket expenses; (c) lack of private insurance as a supplement to Medicare; (d) the acceptability of the procedure to the patient; (e) perceptions of the physician toward CHD in blacks; (f) higher reported prevalence of angina pectoris among whites; (g) disease severity (Giles et al., 1995; McBean & Gornick, 1994; Oberman & Cutter, 1984); and (h) race and sex (Giles et al.). Certainly Gornick et al. (1996) make a strong case for black/white differences in angioplasty and coronary artery bypass among black Medicare beneficiaries with ischemic heart disease as being the results of barriers to services related to race and income. They also lend insight to differences based upon income within the African American sample. For example, these data show that the least affluent black group (< $13,100) was hospitalized for ischemic heart disease 13 percent less often than their most affluent counterpart (> $20,501). They also show that the least affluent had a lower rate for angioplasty by 24 percent and a 16 percent lower rate for coronary artery bypass surgery (Gornick et al., 1996). More research will continue to be needed if we are to better determine when and if there are any changes in cardiac disease prevalence or the type of therapeutic intervention given to blacks.

Survival rates for both racial groups regardless of mode of therapy were generally the same except for older blacks (50+) with multiple vessel disease. These patients had a poorer survival rate with surgical management (Oberman & Cutter, 1984). In general, the data indicate that even with advanced coronary artery disease, myocardial revascularization in urban blacks may give fairly good results (Scott et al., 1994; Peniston et al., 1991; Sterling et al., 1986; Watkins, Gardner, Gott, & Gardner, 1983) with similar survival rates for both African American males and females (Liao, R. S. Cooper, Ghali, & Szocka, 1992). However, there are contradictions (McBean & Gornick, 1994) and differences between long term and short term survival rates (R. S. Cooper & Ghali, 1991). See Peniston et al., 1991, for an overview of cardiovascular surgery in blacks.

It has been inferred that some African American elders may be reluctant to undergo such invasive cardiac procedures. Belief in the efficacy of the treatment may be a major criteria in decision-making. The African American patient must also trust the physician. The literature does not explore the importance of trust or belief in the efficacy of the treatment when examining racial differences in cardiac surgery. Although the concept of trust may be difficult to operationalize it needs to be examined. Life long experiences with institutionalized racism may foster a distrust which could perhaps be difficult to overcome when deciding to undergo an invasive cardiac procedure.

The CHD literature lacks consensus, and it is unwise to draw any definitive conclusions beyond the fact that CHD is a leading cause of death for both blacks and whites (L. L. Adams, Watkins et al., 1986). Our gaps in the current knowledge are
encapsulated by L. Adams, Africano et al. (1984) who urge that we give immediate attention to reliable CHD data from representative samples of blacks. A definite gap in the literature is the failure to investigate the risk factors associated with cardiovascular disease, e.g., hypertension, elevated blood cholesterol, diabetes mellitus, sedentary lifestyle, obesity, personality, and cigarette smoking within the context of socioeconomic differentials, biological risk factors, access/utilization of health care services, and life experience specific to blacks (James, 1984a; Kasl, 1984). James (1984b) in a discussion of socioeconomic influences on CHD interprets the available data to suggest that low SES may be an important contributor to CHD in blacks. Coping styles employed by the poor and near poor to handle recurring behavior stressors may influence their susceptibility to CHD (James, 1984b). He discusses the need for future research in this area to shed light on how low SES may be linked to increased risk of CHD in blacks and other populations.

**Myocardial Infarction**

Myocardial infarctions (MIs) are more often fatal in black males and occur at a younger age than in the white population (Gillum, 1982; Roig et al., 1987). Although there is a higher overall mortality associated with myocardial infarctions in blacks, there is a mortality crossover between the ages of 65 to 70 years, after which there are more fatalities in the white population (Garfinkel, 1984; Roig et al.). Because of the greater incidence of sudden deaths, (i.e., those occurring within 1 hour of the onset of symptoms), many black men die before reaching the hospital (R. S. Cooper, Simmons et al., 1986; Gillum, 1982; Gillum & Liu, 1984). Should they reach the hospital, the data show that their chance of survival is greater than for black females (R. S. Cooper, Simmons et al.). With the exception of those in higher SES categories, black males have been found to have the highest incidence of sudden death (Keil, Loadholt et al., 1984).

A key factor in survival from a heart attack is the time lapse between the onset of symptoms and receiving treatment. The data indicate that African Americans in the urban inner city, have a longer elapsed time between the onset of chest pain and arrival at the emergency room (R. S. Cooper & Ghali, 1991). Of the poor and working class black patients admitted to Cook County hospital with documented acute MIs (between the ages of 37 to 79 for males and 32 to 91 for females), the elapsed time from onset of symptoms to reaching the hospital was a mean of 21 to 24 hours (R. S. Cooper, Simmons et al., 1986). Very few of the patients came by ambulance or made use of 911 emergency services. The factors contributing to delay warrant investigation. Although there is a fairly sizeable body of literature on whites covering this topic, we are just beginning to examine the factors contributing to delay in older black populations (R. S. Cooper & Ghali, 1991; R. S. Cooper, Simmons et al., 1986). Intervening variables which the writer suspects may increase the likelihood of delay for low income blacks include the availability of a telephone, transportation, and knowledge of heart attack symptoms; however, these data are not available.
Hypertension

Hypertension affects approximately 37 percent of black males and 64 percent of black females aged 65 and over (P. F. Adams & Collins, 1987). Between the ages of 55 and 64 years U.S. blacks experience one and one half to two times the rate of hypertension as do whites (W. R. Harlan, Hull et al., 1984; Roberts & Rowland, 1981), and blacks continue to show high rates of hypertension into the later years. There is some evidence that the highest incidence of hypertension in black females occurs between ages 70-74 with those 85 and over having the lowest incidence of hypertension (Miles & Bernard, 1992). (For a comprehensive review of aging and hypertension in blacks, see Anderson, 1988).

Hypertension in African Americans is characterized by earlier onset, greater severity and earlier mortality than in non-blacks (Tyroler et al., 1984), frequently related to more end-organ damage (Francis, 1990). There is also a greater likelihood of blacks developing end-stage renal disease as a result of hypertension than is true for whites (Report of the Secretary’s Task Force, 1986). Black males are particularly at risk for greater severity (Tyroler et al.). Data on mortality rates indicate that across all age groups, blacks are more likely to die from complications of hypertension than their white counterparts (Myers, Anderson, & Strickland, 1989). The greatest racial differences in morbidity occur between ages 25 and 64 with the lowest black/white discrepancy among elders aged 70 and over (Myers et al.).

Over the past twenty years there has been a significant improvement in hypertension control with a greater improvement among blacks of both sexes and white females (R. Cooper, Steinhauer et al., 1981; Folsom et al., 1987; Report of the Secretary’s Task Force, 1986; Rowland & Fulwood, 1984). Although the data indicate age-adjusted declines in death rates for which hypertension has been a contributing factor for all race/sex groups between 1968-1977, the decline in non-white populations occurred at younger ages (Wing & Manton, 1981), with U.S. blacks continuing to have a significant excess of hypertension (Report of the Secretary’s Task Force, 1986).

The literature, in general, is fairly consistent in indicating a positive relationship between body weight and the prevalence and degree of hypertension. However, there are other data which show no correlation between obesity and hypertension in blacks (Boyle, 1970). Differences in weight alone is unable to explain the observed racial differences in blood pressure (McDonough, Garrison, & Hames, 1964). This would indicate that the relationship between obesity and hypertension is not as clear cut or as strong in blacks as in whites, and that perhaps weight has more of an indirect relationship in the etiology of hypertension in blacks than has been assumed (Anderson, 1988; Myers et al., 1989; Dustan, 1990). Although obesity and hypertension are common companions in black women this combination is not as prevalent in white women (Dustan). On the other hand, African American males and
white males have similar incidence of obesity, yet African American males have higher rates of hypertension (Dustan).

Patterns of lifestyle changes aimed at reducing blood pressure and serum cholesterol are evident in the Multiple Risk Factor Intervention Trial (MRFIT). In this study both black and white males, regardless of level of education or SES, made extensive changes in their eating and smoking habits. However, this was not an elder population (Connett & Stamler, 1984). Although the data are limited, some of the intervention programs promoting better health in older blacks appear to be effective in stabilizing and marginally reducing systolic blood pressure (F. R. Butler, 1987; Haber, 1986). Excess body weight continues to be a significant problem (Folsom et al., 1987).

The research on hypertension is a compilation of clinical, epidemiological, and biological data often from discipline-bound perspectives comparing blacks and whites by examining observed differences in morbidity, mortality, and related factors (Myers et al., 1989). Often this research has focused on complex biological variables which have taken precedence over the examination of possible sociocultural factors, (Falkner, 1987), reflecting the assumption that biological differences between the two racial groups explain much of the variation. According to Myers et al., most studies of social differences related to hypertension have used small, nonrepresentative samples, and they have failed to control for social class and within-group differences. The relevant data are insufficient to conclude that there is a genetic basis for black/white differences in hypertension that is independent of socio-economic factors (Myers et al.).

Both whites and blacks from lower SES groups tend to have higher blood pressures than their higher SES counterparts (Report of the Secretary’s Task Force, 1986). The data indicate an inverse relationship between socioeconomic status and blood pressure (Report of the Secretary’s Task Force, 1986) which may serve as an indicator of lifestyle differences that create greater risk for hypertension. Social class, either independently or in relationship to other psychosocial variables including environmental factors, may be an important determinant of hypertension in black populations. How these relationships may function remains an enigma (Report of the Secretary’s Task Force, 1986). Myers et al. (1989) provide a comprehensive overview of a biobehavioral (e.g., combined effects of biological, psychological, and behavioral factors) model of hypertension and related research.

Data on personality characteristics and hypertension in a sample of rural, black male North Carolinians, age 17 to 60, indicate that John Henryism, or "making it!" because of sheer determination amidst overwhelming odds, (measured by a 12 item Likert scale) may contribute to hypertension (James, Hartnett, & Kalsbeek, 1983). The hypothesis is that in cases of high John Henryism the inverse relationship between SES and hypertension should be stronger for those of lower SES background,
increasing the likelihood of elevated blood pressure because of more difficult circumstances. Coping with perceived job stress without adequate coping mechanisms, (e.g., little formal education, feeling that race has hindered one’s chances of achievement or success, and anger inhibition) appeared to be key factors in elevated blood pressures. Low SES black males scoring high on John Henryism appear more likely to be hypertensive than higher SES black males (James, Strogatz, Wing, & Ramsey, 1987). For some black elders (age 65 and older) regardless of sex, making it and coping amidst the overwhelming odds of poor health and poverty may have a relationship to hypertension and other stress-related diseases; however, the empirical data are lacking. Additional research is warranted (James, 1984a) and as Myers et al. (1989) suggest, one approach may be to make use of ambulatory blood pressure monitoring technology to assess stress reactivity under more realistic conditions. It is interesting to note that in a study of 60 black female hypertensive patients treated at a large public hospital the subjects’ health beliefs attributed hypertension to “nerves,” stress, and worry, which the respondents had observed could exacerbate the condition (Heurtin-Roberts & Reisin, 1992). Weight control and diet were not considered by the subjects to be effective in treating hypertension, while stress reduction in the form of avoiding worry and/or stress was considered to be effective (Heurtin-Roberts & Reisin).

Based upon prior research, Klag, Whelton, Coresh, Grim, and Kuller (1991) examined the relationship between blood pressure and skin color. The researchers hypothesized a genetically determined susceptibility to high blood pressure. This susceptibility would be stronger in blacks with darker skin, indicative of more African ancestry in their gene pool. Thus, blacks with darker skin would have a higher incidence of hypertension than lighter skin blacks. Four hundred and fifty seven black subjects, from three different geographical areas, were used. Skin color was measured on the medial part of the upper arm. Blood pressure was higher in darker skin subjects from lower socioeconomic status with no high school education, but not for black subjects, regardless of shade, who were well employed or more highly educated. In fact, no relationship was found for subjects of higher socioeconomic status (Klag et al.).

Discussion of these data suggests that blacks with darker skin from lower socioeconomic strata are more likely to experience limited access to economic and social resources (Klag et al., 1991). It is assumed by the writer that higher blood pressure in the dark skinned low SES group is a response to this stress. Environmental factors such as poverty, racism, and diet could be the most significant determinants of excess hypertension in blacks (Klag et al.).

This analysis is also in keeping with the concept of John Henryism and the struggle to overcome almost insurmountable social and economic barriers. These data may also reflect the effects of institutional racism upon African Americans with darker skin color. A more valid measure of skin color would have been the face,
specifically the area between the eyes (done in previous research) since the upper arm is one of the lighter parts of the body. The assumptions about white and black gene pool mixtures is disturbing to the writer. Here it appears to outweigh the study of more important variables such as education, gender and poverty in relationship to hypertension and darker skin color in blacks.

In a study of black patients discharged after acute care, J. M. Miller and B. S. Miller (1986) found a higher incidence of alcoholism and hypertension in males age 60 and over than in their female counterparts. Patients diagnosed as alcohol abusers were 20 percent more likely to develop hypertension than were the nonalcoholic control group.

Considerable investigation of patient adherence to the prescribed hypertensive treatment has documented the failure of subjects to remain under continuous medical care and to follow the prescribed treatment; 15 to 30 percent of known hypertensive individuals terminate treatment (Cummings, Kirscht, Binder, & Godley, 1982). The relationship between health beliefs, perceived efficacy of the treatment, knowledge of the illness, and barriers to receiving medical care have been documented as variables that affect patient compliance (Richardson, 1983), and they were the subject of much investigation in the late 1970s and early 1980s. Compliance with the prescribed hypertension regimen has also been found related to use of the emergency room for blood pressure checks and lack of a primary care physician (Shea, Misra, Ehrlich, Field, & Francis, 1992). Indications are that compliance is a major problem. Although a review of the compliance literature per se is not included in this paper, there does seem to be better hypertension control in some black populations (Folsom et al., 1987).

A focus in the literature seems to be on the effectiveness of prescribed medications and biological differences between the races which play a role in the pathology and treatment of hypertension in blacks. There is evidence to suggest that blacks show a different treatment response than whites. Blacks seem to have a greater salt sensitivity and are less able to excrete the excess sodium found in today's diets (Luft, Weinberger, & Grim, 1982). Thiazide diuretics and calcium entry channel blockers are found to be more effective in lowering blood pressure in blacks than beta-blockers (Francis, 1990; Moser, 1990). Biological differences shown in some data as the cause of observed racial differences in hypertension include: (a) differences in renal physiology; (b) lower self-reported potassium and calcium intake; (c) sodium handling; and (d) the mechanisms controlling calcium metabolism. These data are inconclusive, and they do not preclude the need for clinicians to assess each individual patient.

Data from the Hypertension Detection and Follow-Up Program, a five year national, randomized, clinical trial of the effectiveness of antihypertensive therapy in reducing all causes of mortality in hypertensive individuals screened from the general
population, (29 percent of the sample were black and 71 percent white), show that black males had higher rates of mortality than their white counterparts (Report of the Secretary’s Task Force, 1986). The differences between these two racial groups at baseline were electrocardiogram and left ventricular abnormalities; more of the black males were on hypertensive medications and had a history of diabetes or a stroke (Report of the Secretary’s Task Force, 1986). Males under age 60 were often unaware of their high blood pressure, and of those with the knowledge, only 20 percent were being treated. Less than 10 percent of this treated population were under control (Wagner et al., 1984). The data also indicate that the cost of hypertensive treatment may pose a barrier to health care for lower socioeconomic groups, particularly black females (Shulman, Martinez, Brogan, Carr, & Miles, 1986). Subjects who were both the poorest and had the most severe hypertension needed to spend a greater proportion of their income on medications to achieve adequate control (Shulman et al.).

Cholesterol

Mean cholesterol levels were comparable for blacks and whites in the National Health and Nutrition Examination Surveys or NHANES (NHESI, NHANESI and II, 1960 to 1980). Elevated serum cholesterol was greater in persons above the poverty level (Yetley & Johnson, 1987). Although mean serum cholesterol levels had decreased significantly in whites, the same was not true in black populations (National Center for Health Statistics, National Heart, Lung, and Blood Institute Collaborative Lipid Group, 1987). Regardless of race, females middle-aged and older (55 to 74) had the highest prevalence of elevated levels of serum cholesterol (Yetley & Johnson).

Heiss et al. (1984), in a review of the Evans County Study, highlight data indicating that in comparison to white males, black males had: (a) lower total cholesterol levels; and (b) higher levels of HDL cholesterol. Their findings suggest that there are differences in the lipid profile of middle-aged persons indicating a relative antiatherogenic profile in black males. A view expressed in the literature is that these higher concentrations of antiatherogenic HDL cholesterol in black males are potentially protective against CHD mortality and morbidity (Curry et al., 1984; Gillum & Grant, 1982; Heiss et al.; Report of the Secretary’s Task Force, 1986).

It has also been speculated that higher levels of HDL cholesterol in blacks is genetically rather than environmentally determined (Curry et al., 1984; Gartside, Khoury, & Glueck, 1984; Gillum & Grant, 1982; Glueck, Gartside, Laskarzewski, Khoury, & Tyroler, 1984; Heiss et al.). Gartside et al. suggest that higher HDL cholesterol is a physiologically adaptive mechanism which serves as a protection for Africans against sleeping sickness. He further suggests that this same physiological mechanism is still present in blacks today although it may not serve the same purpose. Although black females appear to have some of these same differences in HDL cholesterol, they are not of the same magnitude as the male differences (Heiss et
al., 1984). The pandemic obesity in the older black female population has been attributed to the fact that the HDL differences do not function in the same protective manner for females as they do in black males (Gartside et al.).

In a sample of 100 males aged 20 to 69 from the Framingham Study, blacks were found to have a significantly lower HDL cholesterol level than whites (P. W. F. Wilson et al., 1983). It is important to note that the Framingham data are based upon a study population of black subjects who are highly educated, in fact more highly educated than the white subjects, and who represent a relatively affluent group of U.S. blacks (P. W. F. Wilson et al.). This very select homogeneous population may help explain why education was not significantly associated with different levels of HDL cholesterol in black males. It certainly supports the notion that socioeconomic status (as measured at least by education) may have more of a relationship to health conditions than even race. How and what to measure as key SES or environmental variables lacks clarity and consensus. This gap in the literature, as well as the apparent conflicting evidence on HDL between the Evans County and Framingham data need to be examined further.

**Cerebrovascular Disease**

Cerebrovascular disease is the third leading cause of death in black populations (Gillum, 1988). Between the ages of 35 to 74 blacks are more likely to die from strokes than their white counterparts (Gillum, 1988). Blacks younger than age 75 have a 2.3 times higher incidence of intracerebral hemorrhage than their white counterparts (Broderick, Brott, Tomsick, Huster, & Miller, 1992). Epidemiological data show a decline in stroke mortality for U.S. blacks until the early 1980s after which there appears to be an upward trend in stroke mortality (Gillum, 1988). Until age 75, black females appear to have a higher incidence of stroke than black males (Gillum, 1988).

According to the Report of the Secretary's Task Force on Black & Minority Health (1986) stroke mortality is greater in blacks than in whites, even with the decline in stroke mortality for non-white populations, much of which, reports the Task Force, has been observed in younger black populations. Another study indicates that young and middle-aged African Americans are at greater risk of cerebral hemorrhage than whites are probably related to risk factors such as hypertension, cigarette smoking, obesity and diabetes (Broderick et al., 1992; DiPietro, Ostfeld, & Rosner, 1994). There are those who suggest that hypertension and diabetes do not adequately explain the higher incidence of strokes in blacks and that more research is needed (Kittner, L. R. White, Losonczy, Wolf, & Hebel, 1990). The data show geographical differences in the incidence of stroke mortality, particularly in the Southeast region of the U.S., which has the highest rate of stroke mortality for black males (Report of the Secretary’s Task Force, 1986). In a comparative study of strokes in populations of whites, blacks and Hispanics some of the differences included: (a) a slightly greater likelihood of a recurrent stroke in whites than in blacks or Hispanics during the first six months
following the first stroke; and (b) increasing risk in blacks and Hispanics which continued to rise for a year following the original stroke (Sacco, Hauser, Mohr, & Foulkes, 1991). One of the risk factors associated with a second stroke for all three subject groups was an abnormal first electrocardiogram (Sacco et al.).

In a field investigation of stroke survivors, males had a higher age-adjusted stroke prevalence ratio regardless of race. Black subjects of either sex had a higher age-adjusted prevalence ratio than did whites. For all groups the prevalence ratios increased with age (Schoenberg, 1986). The literature on cerebrovascular disease appears more consistent than the CHD literature.

Cancer

In 1947 the age-adjusted cancer mortality in blacks was approximately 20 percent lower than that of whites. Over the past 30 to 40 years there has been a catastrophic increase in both cancer incidence and mortality (Boring, Squires, & Heath, 1992; Leffall, 1975). The literature indicates that factors related to this increase include: an historical underreporting (Leffall, 1975); SES (American Cancer Society, 1986; Baquet, Horm, Gibbs, & Greenwald, 1991; Dayal, Power, & Chiu, 1982; Devesa & Diamond, 1983; Freeman, 1991; Report of the Secretary’s Task Force, 1985); genetics (National Cancer Institute, 1984; Vernon, Tilley, Neale, & Steinfeldt, 1985); stage at diagnosis (Eley et al., 1994; Hill et al., 1995; Mandelblatt, Andrews, Kerner, Zauber, & Burnett, 1991; Weaver et al., 1991); sociocultural and environmental issues that include diet (Boring et al., 1992; Devesa & Diamond, 1983; Freeman, 1991; Report of the Secretary’s Task Force, 1985; Weaver et al., 1991); and differences in medical treatment (Akerley, Moritz, Ryan, Henderson, & Zacharski, 1993; Freeman, 1991; Hankey & Myers, 1987). Inadequate patient education and lack of confidence in the medical treatment of cancer contribute to a delay in seeking health care (Report of the Secretary’s Task Force, 1985). Today, cancer is the second leading cause of death among African Americans (Boring et al.).

Excess cancer deaths for black males and females are similar across age; however, a greater percentage of females die between the ages of 45 and 69 years (Report of the Secretary’s Task Force, 1985). The older female population (groups 60+) has an even higher rate of invasive cervical cancer than their white counterparts (Baquet, 1988). Older black females who routinely receive treatment for chronic illness fail to have routine PAP smears, and although their hypertension or diabetes may be controlled, they are dying from cancer in disproportionate numbers (National Institute on Aging Information Programs, 1986). Older black women, both urban and rural, delay regular PAP smear screening (Bearman, MacMillan, & Creasman, 1987; L. C. Harlan, Berstein, & Kessler, 1991; Sawyer, Earp, Fletcher, Daye, & Wynn, 1990; J. E. White, Begg, Fishman, Guthrie, & Fagan, 1993) as do African American females from lower socioeconomic groups who tend to delay regular PAP smear screening 6 years or more (Bearman et al., 1987). Survival in black women age 75 and older with both
cervical and uterine cancer decreases with age (Baquet, 1988). An examination of tumor grade among postmenopausal women with endometrial cancer indicate that black women have more poorly differentiated tumors that are less responsive to treatment than white women's tumors. These findings were partially explained by non-use of estrogen replacement, screening, stage at diagnosis and other social determinants (Hill et al., 1995).

Breast tumors are more advanced in black females when diagnosed and often require more extensive surgery (Dayal et al. 1982; Eley et al., 1994; NCCBA, 1987; Vernon et al., 1985). Mammography does not appear to be as effective in earlier diagnoses for African American women as white women (Women's Health, 1995). Data from the Surveillance, Epidemiology and End Results (SEER) Program and the 1987 National Health Interview Survey (NHIS) describe the mammography screening behavior of older minorities and whites (Caplan, Wells, & Haynes, 1992). According to these data 83.5 percent of black women ages 75 and over reported never having had a mammogram, compared to 75 percent for white women (Caplan et al.). The reason most often given by these women age 65 and older for not having a mammogram was that it had not been recommended by their physician. Gornick et al. (1996) also support these data. However, the poorer income women (≤ $13,100) had a lower mammography rate than the higher income (≥ $20,501) group; the rate was 33 percent lower for poor white females and 22 percent lower for poor African American females. See Gornick et al. for other utilization data.

The consensus of the literature seems to be that black women have a lower incidence of breast cancer than white women but poorer breast cancer survival rates, even when controlling for age, SES, stage, and delay in seeking treatment (Northern California Cancer Center, 1991; Vernon et al., 1985).

Black males have a greater likelihood of dying from cancer than any other population (Office of Minority Health Resource Center, 1988a), especially prostate cancer which has a 60 percent excess incidence (Northern California Cancer Center, 1990; Office of Minority Health Resource Center, 1988a; Report of the Secretary's Task Force, 1985; Underwood, 1992). The likelihood of developing prostatic cancer increases after age 50 (Northern California Cancer Center, 1990; Office of Minority Health Resource Center, 1988a) although older black males (70+) seem to have a less aggressive prostate cancer with a better survival rate than younger black males (age 50) (Pienta et al., 1995). Early detection is a significant factor in successful treatment of prostate cancer, yet black men (similar to black women) are diagnosed at later stages (Price, Colvin, & Smith, 1993). A retrospective study of 1,606 U.S. Department of Defense tumor registry patients with prostate cancer found that the black patients exhibited a higher relative risk of cancer in younger age groups, presented with a higher stage, and demonstrated increased progression in distant metastatic disease than the white men. When controlled for stage, grade, and age, race did not affect survival, but blacks demonstrated a clear trend of longer survival for
distant metastatic disease. No racial differences were found in behavioral risk factors, tumor grade or size, wait time, or type of treatment (Optenberg et al., 1995). In a study of disease perceptions among 290 male subjects, Price et al. (1993) found that black men in the sample did not know that they were more at risk than white males, nor did they know the signs and symptoms of prostate cancer.

African American elders have higher rates for some medical procedures and lower rates for other procedures. In the study by Gornick et al. (1996) of 26.3 million Medicare beneficiaries, of which African American males represented 787,403 subjects age 65 and older, the data on orchiectomy is worth noting. In this sample black subjects had a high rate of bilateral orchiectomy and, unlike white males, this rate was not associated with income (Gornick et al.).

Up to the age of 75 years, African American males have a higher rate, for all cancers combined, than their white counterparts and also poorer survival rates, particularly for older males (Baquet, 1988). Among the old-old (85+), the sites most often associated with cancer mortality are prostate, lung and colon/rectum (Miles & Bernard, 1992). As with black women this higher incidence has been attributed to SES, sociocultural factors, exposure to risk factors, genetic predisposition (Northern California Cancer Center, 1990) and differences in treatment (Akerley et al., 1993). In looking at VA patients, Page and Kuntz (1980) found that when cancer treatment is the same and not dependent upon the patient's ability to pay, income and race do not appear to affect cancer survival. These data are supported by the study of lung and colon cancer, in another VA setting in which access to comparable medical treatment is the same regardless of socioeconomic differences (Akerley et al.).

The risk factors associated with cancer in blacks are tobacco, alcohol, diet, obesity and occupation (Baquet, 1988; Report of the Secretary’s Task Force, 1985). The number of African Americans who smoke has declined and lung cancer incidence and mortality has also declined for African American males (Boring et al., 1992). The data examining smoking cessation factors interestingly show that African Americans are more likely to be wake-up-smokers, having their first cigarette within ten minutes of waking (Royce, Hymowitz, Corbett, Hartwell, & Orlandi, 1993). This pattern of behavior along with smoking high-tar/nicotine menthol cigarettes may cause blacks to be more nicotine dependent (Royce et al.).

The literature on cancer cites genetic predisposition or race as a key factor in cancer types, incidence, and survival patterns (National Cancer Institute, 1984; Vernon et al., 1985). The possibility of biological differences between blacks, whites and Hispanics in the disease course has been postulated (Vernon et al.). It has also been suggested that some cancer sites in blacks appear to have more aggressive types of tumors resulting in poorer survival rates (Baquet, 1988). These sites are associated with physiological cancer differences in blacks and whites (National Cancer Institute, 1984). Black female elders are likely to have their breast and cervical cancer
diagnosed at late stages, particularly if they are from lower socioeconomic strata and use public hospitals (Mandelblatt, Andrews et al., 1991). Within group differences are apparent in cancer incidence. For example, African American males in Northern California have one of the highest rates of prostate cancer (Northern California Cancer Center, 1990) and blacks living in the Chicago area have differences in cancer incidence depending upon whether they live in the southern or northern part of the county (Boring et al., 1992). The data indicate that the differences in breast cancer survival rate between African American and white women are due to the advanced stage of the disease at diagnosis (Eley et al., 1994). Since the original review there has been more investigation into the social determinants that play a role in the etiology and pathophysiology of cancer in older black Americans. More is still needed.

According to many studies socioeconomic status, e.g. income, and education, is related to cancer incidence, mortality and morbidity (Baquet et al., 1991; Boring et al., 1992; Freeman, 1991; Hill et al., 1995). This relationship is apparent regardless of race (Boring et al.). One third of the African American population live in poverty (Freeman, 1991). This disproportionate number of African Americans of lower socioeconomic status accounts for much of higher cancer incidence in the black population (Baquet et al.). The data are beginning to demonstrate that poverty, with the accompanying characteristics of less formal education and differences in access to quality patient care, etc., may have an even stronger relationship to his or her cancer incidence than race (Boring et al.).

**Diabetes Mellitus**

Since the turn of the century, the black population has experienced a considerable increase in diabetes prevalence and mortality (Roseman, 1985). Data on male draftees from both World War I and II showed a much lower rate of diabetes for blacks than their white counterparts (Roseman). Between 1963 and 1981, the prevalence of diabetes increased 175 percent in blacks and 106 percent in whites (Roseman). With this increased prevalence, the male/female ratio among black diabetics seems to be declining (Lieberman, 1988). The increased prevalence of diabetes mellitus is thought to be the result of the increased: (a) incidence of blacks with the diagnosis of Type II, or Non-Insulin Dependent Diabetes Mellitus [NIDDM]; (b) number of elders at risk for diabetes; and (c) longevity of individuals with diagnosed diabetes mellitus. Data from the National Health and Nutritional Examination Survey II (1976-1980) also support this greater prevalence of diabetes in blacks (Yetley & Johnson, 1987), which among U.S. blacks is associated with excess mortality and morbidity (Vander Zwaag et al., 1983). Although fraught with methodological problems and sample bias, the consensus of research on African blacks suggests that the prevalence of diabetes is less common than in black Americans (Roseman).

The most common view is that there is a 50 percent higher rate of diabetes among black females, the majority of whom are overweight, and a 16 percent higher
rate of diabetes in black males, than their white counterparts (Lieberman, 1988; Report of the Secretary's Task Force, 1985; Roseman, 1985). A few studies, however, have found the opposite. Again, in the Evans County study, black males had a lower rate of diabetes than white males (Roseman). Likewise, in the Chicago study (1973) and the Kaiser Permanente Northern California study 1964-1968, diabetic prevalence was lower in blacks than whites (Roseman). In a study of employed persons (N=28,895 whites and N=2,607 blacks), ages 25 to 64, the prevalence of diabetes and hyperglycemia was found to be the highest among white males (R. Cooper, Liu et al., 1984). The rates of previously diagnosed diabetes were similar for each race-gender group (R. Cooper, Liu et al.).

As with the majority population, more than 95 percent of blacks with diabetes mellitus have NIDDM (L. S. Lieberman, 1988) and prevalence increases with age. Blacks over age 65 have nearly three times the incidence of diabetes as their white counterparts (Lipson, Kato-Palmer, Boggs, Moore, & Pope, 1988). Older blacks are at greater risk for diabetes, and the data indicate that the incidence of diabetes is eight times more frequent in the age group 65 to 74 years (L. S. Lieberman). The full significance of diabetes is its role as a contributing factor in other major diseases. For example, it predisposes the patient to a two-fold increase in myocardial infarction (Danowski, Ohlsen, & Fisher, 1980). Blacks frequently exhibit and are at a greater risk of diabetic complications than whites (Office of Minority Health Resource Center, 1988b; Roseman, 1985). These complications include heart disease, stroke, kidney failure, and blindness (Office of Minority Health Resource Center, 1988b), as well as peripheral vascular disease with complications that may lead to the amputation of the lower extremities. Black diabetics die earlier with diabetes as the underlying cause more frequently than whites. The latter tend to live longer with diabetes and to die of other diseases, with diabetes mellitus as an associated condition (Manton, 1980). The excess mortality among black Americans suggests that perhaps diabetes mellitus is more severe in blacks, although this view does not take into consideration the influence of SES, age at onset, medical care and hypertension (Roseman, 1985). Black and Hispanic diabetics have fewer physician visits and are more likely to be hospitalized than white diabetics (A. K. Taylor, 1987). They also purchase more medication and medical supplies than their white counterparts (A. K. Taylor).

The data indicate that the rate of undiagnosed diabetes for both blacks and whites between the ages of 20 to 74 is almost equal to the diagnosed rate (M. I. Harris, Hadden, Knowler, & Bennett, 1987; L. S. Lieberman, 1988; Roseman, 1985). Black females appear to have the highest rates of both diagnosed and undiagnosed diabetes (Roseman, 1985). However, studies of impaired glucose tolerance (IGT) show that the IGT rate for blacks does not increase with age and that impaired glucose tolerance rates in black women are the lowest for the four race and sex groups (Roseman). According to the Report of the Secretary’s Task Force on Black & Minority Health (1985), the incidence of Type II diabetes may very well be underestimated in ethnic/racial persons because of methodological problems with
measurement criteria and definition. As many as a half million black elders may have diabetes mellitus (L. S. Lieberman). This greater prevalence seems to occur between middle-age and age 65 (Gartside et al., 1984; Report of the Secretary’s Task Force, 1985).

Obesity is the single most important risk factor for diabetes, and in many adults the two problems are almost one in the same (L. S. Lieberman, 1988; Office of Minority Health Resource Center, 1988b). The duration of obesity and the amount of adipose tissue are significantly associated with diabetes mellitus Type II (L. S. Lieberman). According to the Report of the Secretary’s Task Force on Black & Minority Health (1985), controlling obesity could perhaps prevent 300,000 cases of diabetes a year and thus the disproportionate rate of diabetes in ethnic populations.

In a study of 40 middle and low income older black diabetics between the ages of 50 to 89 to determine factors motivating compliance with the prescribed regimen, Richardson (1983) found that: (a) the majority of subjects were noncompliant; and (b) although 89 percent of the noncompliers adhered to the medication regimen, 85 percent of these subjects failed to adhere to the prescribed dietary regimen. Noncompliers were grouped according to specific types of behavior based upon the qualitative influence of health beliefs, behavior, attitudes, and food attachments. The most likely dietary noncompliers were the chronically obese who expressed attitudes of helplessness and hopelessness. Overall compliance was influenced by perceptions of the treatment efficacy, fear of illness consequence, response to food, and sociocultural barriers to health care, and particularly the patient’s perceptions of the physician’s interest and concern (Hopper, 1993; Richardson, 1983). The weight of subjects was associated with compliance. Maintaining rapport with the same physician over time was almost impossible in the clinic setting, and this lack of continuity was associated with lower diabetic compliance (Richardson, 1983). Limited financial resources often made it difficult for these older diabetics to follow the prescribed diet (Lipson et al., 1988; Richardson, 1983). Items such as fresh fruits and vegetables, lean meats and high fiber foods are frequently unaffordable, requiring substitutions that were incompatible with the goals of the prescribed dietary regimen (Richardson, 1983). Greater compliance with increased age as well as a greater perception of disease severity seems related to a greater reliance upon professional health care than folk or popular medical practices (Reid, 1992).

In examining diabetes treatment programs, Mazzuca, Weinberger, Kurpius, Froehle, and Heister (1983) examined communication between 19 clinicians and 29 patients. The statements that were predictive of high patient comprehension were those: (a) demonstrating respect; (b) providing current clinical information; and (c) acknowledging the patient’s input. The importance of doctor/patient communication and relationship is borne out elsewhere (Lipson et al., 1988; Richardson, 1983).
In their study of self-efficacy as a determinant in adherence to the prescribed regimen for older African American women, Skelly, Marshall, Haughey, Davis, and Dunford (1995) found that self-efficacy with the regimen is not a constant. Although it may be a predictor of compliance with some aspect of the regimen at one point in the course of the illness, self-efficacy may not be a predictor of compliance at some point later (Skelly et al.).

The amputation rate in black diabetics is approximately twice that for white diabetics (Lieberman, 1988). Gordon, Freeman, and Roberts (1980) examined this disproportionate limb loss in a small population of Georgians for the years 1977-78 and 1979-80. During 1977-78, 72 amputations were performed on patients with a mean age of 72.3; 50 of the patients were black. Forty-six were given amputations without angiography. From 1979-1980 the number of amputees decreased as a result of an aggressive program of revascularization (Gordon et al.). Differences in the rate of amputation for peripheral arterial disease vs revascularization may in part be due to race and insurance status (Tunis et al., 1993). See also Gornick et al. (1996), who indicate that black Medicare beneficiaries, unlike their white counterparts, are more likely to undergo amputation of all or part of the lower limb, than to be given leg-sparing surgery.

The data on mortality and amputation show a 50 percent mortality within three years of a unilateral amputation and 80 percent mortality within 6 months for bilateral amputees (Gordon et al., 1980). Foot problems leading to amputation could be greatly reduced (50 to 70 percent) with appropriate detection and examination by both physicians, diabetic patients and family caregivers (L. S. Lieberman, 1988; Richardson, 1983).

**Glaucoma and Cataracts**

Developing glaucoma is a greater health risk for African Americans. The prevalence of blindness associated with glaucoma is six to eight times that found in the white population (Javitt, McBean et al., 1991; R. Wilson, 1989) with a differential of 15:1 for older adults 45 to 64 years of age (R. Wilson). The literature also suggests that glaucoma in blacks may be more aggressive, resistant to treatment, have a more rapid disease course, and an earlier onset (Grant & Burke, 1982; R. Wilson; R. Wilson, Richardson, Hertzmark, & Grant, 1985).

Perhaps best known in the comparative study of glaucoma and blindness is the East Baltimore study which uses a random sample of 2,395 blacks and 2,913 whites ages 40 and older. Subjects were given a battery of detailed eye examinations by the same team of researchers. Sixty-four subjects were identified as blind in both eyes (Sommer et al., 1991). According to these data the cause of blindness was different for the two racial groups. Blindness in white subjects was most often the result of age-related macular degeneration. Blindness in black subjects was due to unoperated
senile cataracts (27 percent) and glaucoma (19 percent) (Sommer et al.). These data suggest that blacks are underusers of ophthalmic health services and victims of blindness that could probably have been reversed or prevented in at least half of the cases if they had received treatment earlier (Sommer et al.).

In a retrospective study of glaucoma in 22 black male and 35 white male patients, selected from a Glaucoma Consultation Service, blacks not only had a higher incidence of glaucoma but an earlier onset (Drake, M. R. Wilson, D. Harris, & Goodwin, 1993; Sommer, et al., 1991; R. Wilson et al., 1985). Although beta blockers have not been as effective in treating hypertension in blacks as in whites they are equally effective in lowering intraocular pressure for glaucoma patients from both racial groups (Drake et al.). The same appears true for adrenergic agents which are also effective in the treatment of glaucoma (Drake et al.). It would seem to the writer that replication with a larger sample is needed (N=38) to further confirm the reliability of these data (Drake et al.).

Our knowledge of glaucoma is lacking the depth and breadth that we see in our knowledge of other diseases such as diabetes, coronary heart disease, and hypertension. We have limited understanding of the risk factors involved or the relationship between glaucoma and: (a) lifestyle; (b) stress; (c) diet; (d) family history; and (e) environment (R. Wilson, 1989). The fact that it is found disproportionately in blacks should be the focus of attention.

As a result of the research on skin color and hypertension, the relationship between skin color and intraocular pressure in African Americans was also examined (Schwam, Kalenak, Meyers, & Kansupada, 1995). Using the inside of the upper arm, researchers measured skin darkness with a spectrocolorimeter measuring the L to indicate lightness and darkness (Schwam et al., 1995). The spectrocolorimeter is used to analyze paint. The researchers used a white glossy calibration surface which gave a L value of 99.9 and a flat black surface which gave an L value of approximately zero. The writer seriously questions whether this method gives a valid measure of skin color in African Americans or whites. The data found no relationship between skin darkness and intraocular pressure. Skin color by itself is probably no more of a factor in disease incidence in blacks than some other physical characteristic would be for another racial group and disease prevalence.

Of equal import, discovered while reviewing the literature on glaucoma is data indicating that African Americans have a four-fold prevalence of blindness caused by unoperated cataracts than is true for whites (Javitt, Kendix et al., 1995) even though cataract surgery is the most frequently performed Medicare funded surgical procedure (Javitt, Kendix et al.) in the U.S.

In a cross-sectional, population-based study of Medicare beneficiaries (5 percent random sample) in 1986 and 1987, the data show a decreased likelihood of
black elders undergoing cataract surgery in comparison to whites (Javitt, Kendix et al., 1995). The factors associated with having cataract surgery are: (a) geographic location; (b) allowed charges; and (c) the concentration of optometrists (Javitt, Kendix et al.). According to these data whites are 27 percent more likely than black beneficiaries to have cataract surgery and African American males are only 57 percent as likely to undergo cataract surgery as white females (Javitt, Kendix et al.). Increasing age (65-94), white race, and living in an area where the mean income is higher than $15,000 are other sociodemographic factors associated with greater likelihood of having cataract surgery (Javitt, Kendix et al.). It is also interesting to note that Medicare beneficiaries who live in geographical areas that have the highest allowed charge for cataract surgery are approximately 1.5 times more likely to undergo cataract surgery than those living in geographical areas with the lowest possible charge (Javitt, Kendix et al.).

Since the data indicate that the highest number of cataract surgeries are performed in the "Southerly latitude" (in keeping with the higher ultraviolet-B from the sun), and the majority of black elders live in the Southeast (59 percent) it would seem to follow that a disproportionate number of cataract surgeries performed in the South are not being performed on black elders. As yet there are no explanations for these findings. Javitt, Kendix et al. (1995) suggest that blacks underuse ophthalmic health services. In the case of glaucoma, a disproportionate number of black elders may consult an optometrist for corrective lens but fail to have their vision checked on a regular basis by an ophthalmologist. When and if glaucoma is discovered it may already be too late. Having multiple chronic illnesses, e.g. diabetes, hypertension and CHD, could possibly delay having cataract surgery and also influence its outcome. It does, however, appear from the literature that older blacks are undertreated for both glaucoma and cataracts (Javitt, Kendix et al., 1995; Sommer et al., 1991). Research is needed to determine causal relationships in these data.

**Obesity**

The genesis of obesity is multifactorial and few of the factors are well characterized, raising numerous research questions about prevention and treatment (L. S. Lieberman, 1988). The data indicate that obesity and being overweight are related to SES; both race and poverty are independent predictors (Van Itallie, 1985; Yetley & Johnson, 1987). The association between obesity (and overweight) and both diabetes and hypertension is well documented in the literature. It has also been linked to greater mortality and morbidity in black females with coronary heart disease.

The data from NHANES II show that 60 percent of black females over age 45 are overweight and twice as likely to be obese as their white counterparts (Van Itallie, 1985; Yetley & Johnson, 1987). When compared with black males and whites of both sexes between the ages of 55 and 64, black women have the highest percentage of obesity (Office of Minority Health Resource Center, 1988c). Although prevalence of
overweight decreases for black males after age 55, it remains relatively constant for black females from ages 45 to 74 (Van Itallie, 1985).

Although the dietary patterns of blacks and whites are similar, there are differences in food value. As a group, blacks consume 300 fewer calories than whites per day, but have higher obesity rates (National Institute on Aging Information Programs, 1986). As a whole, black females consume fewer calories, and much lower numbers of calories per kilogram of body weight, than white females who are generally thinner (Gartside et al., 1984). Black females age 55 to 64 with the greatest prevalence of obesity also report the lowest caloric intake (National Center for Health Statistics, Carroll, & Dresser, 1983). Black women have significantly lower caloric intake than white women between the ages of 46 to 65, and over 65 years (Gartside et al.). There is very little if any literature that examines cultural attitudes of older blacks towards obesity, perceived body image, and the concepts of thin vs. “fat.” This would seem to be a fruitful area for investigation and may shed light on the impact of diet therapy and weight reduction programs. Gohdes (1988) suggests that a successful diet therapy program must incorporate the patient’s race/ethnicity and involve a number of techniques, if it is to be successful.

Nutrition

There is no uniform diet for blacks. Preferences for certain food items are similar for both blacks and whites from the same geographic area (Downes, 1995). Dietary habits, e.g., preparation and selection, have been influenced by historical background, availability, region, and religious practice (Jerome, 1980; Report of the Secretary’s Task Force, 1985). For example, the religious doctrines of both the Muslims and Seventh Day Adventists prohibit the eating of pork (Spector, 1985). Some Southern-born and socialized U.S. blacks may show a preference for vegetables, grains and grain products, and organ meats which are high in cholesterol (Report of the Secretary’s Task Force, 1985). However, these choices are most probably influenced by cohort and social class. It is safe to say that, prior to the mass migration of blacks from the rural South to the urban north, diet was often determined by what one grew and processed. (See Jerome (1988) for a review of diet and nutrition of older blacks.)

A ten-year follow-up study of dietary patterns and nutritional well-being among blacks aged 60 and over indicates that changes in food selection, preparation, and consumption accompany changes in health and socioeconomic status (Jerome, 1982). The changes which occurred over time include: (a) drastic reduction in income from $9,000 to $10,999 to between $3,000 and $5,000; (b) overall decrease of food intake associated with age, although core diet selections remained constant; (c) substitution of diet food for regular foods linked to prescribed therapeutic food regimens; and (e) the elimination or decrease of pork and alcohol consumption (Jerome, 1982).
The literature on the adequacy or deficiencies of vitamin and mineral intake is limited and contradictory, with researchers often using different methodological criteria (Learner & Kivett, 1981; Mettlin, 1980; National Institute on Aging Information Programs, 1986; Report of the Secretary's Task Force, 1985). Some data do, however, indicate deficiencies in Vitamin A, C, iron, calcium, thiamin, and riboflavin (Furstenberg & Mezey, 1987; Jerome, 1988; Report of the Secretary's Task Force, 1985). Lifelong dietary and nutritional habits have also been linked to excess cancer incidence, and its histological type and grade, in black populations (American Cancer Society, 1986; Hankey & Myers, 1987).

Data from the NHANES indicate that older blacks and whites aged 55 to 74 exhibit similarities and differences in their food selection and consumption. Although caloric intake was inadequate for both racial groups, older black subjects were more likely to skip meals and generally consumed fewer calories. The diets of black females were the most nutritionally inadequate followed by the diets of their male counterparts (Jerome, 1988). Rural black elders report perceived dietary inadequacy, and it is possible that poor oral health may have a bearing on dietary changes after age 50 (Learner & Kivett, 1981). In a study of urban and rural elders using 24-hour dietary recall, older black females: (a) were more at risk for protein-calorie malnutrition; and (b) had calcium intakes that were two thirds less than the RDA recommendations (Thompson, Mongan, M. D. Miller, & Creten, 1987).

Economic factors help determine dietary intake (F. E. Bailey & Walker, 1982; Learner & Kivett, 1981; Richardson, 1983). F. E. Bailey and Walker make the observation that many blacks over age 60 are nutritionally vulnerable because of low income and that black males between the ages of 55 to 64 with incomes below the poverty level report the lowest caloric intake (National Center for Health Statistics, Carroll, & Dresser, 1983). For black elders many of the problems of compromised nutritional status are exacerbated by the fact that a sizeable portion of this population is either poor or near poor. Empirical data by cohort, sex, social class, occupation, and marital status are inadequate.

**Hip Fractures**

Hip fractures are more common in females, particularly white females (Bauer, 1988; Farmer, L. R. White, Brody, & K. R. Bailey, 1984; L. R. White, Farmer, & Brody, 1984). Data from the National Discharge Survey 1974-1979 show that: (a) age-specific incidence curves for men and women are similar showing increasing risk with increasing age, approximately doubling every five years after age 50; (b) age-specific rates for both sex and racial groups indicate no significant difference between black females and males of both races; and (c) incidence rates for white females are lower than for non-white females until age 40 to 44 at which point there is a sharp increase for white females, which continues to accelerate, giving them one and a half to four times the incidence for black females after age 40 and approximately twice the
incidence of white males after age fifty (Farmer et al., 1984; L. R. White et al., 1984). The hospital discharge data indicate that race alone is not an adequate explanation for the observed differences in hip fracture incidence. This is based upon the observation of no difference in the increase of hip fractures with age for black and white males and the fact that increased risk associated with age is the same for males of both races and black females (L. R. White et al.). Other data on the African American elders over age 75 indicate that the highest incidence of hip fractures in males occur between ages 75 and 79 and for those male elders 85 years and older (Miles & Bernard, 1992). The incidence of hip fractures also increases with age for African American females (Miles & Bernard).

In general, black females at every age have approximately one half the risk of hip fractures as white females (L. R. White et al., 1984). Differences in incidence rates have been attributed to a greater bone mass in blacks at all ages beginning at birth, despite a lower consumption of milk and calcium than whites (Downes, 1995). L. R. White et al. suggest that this differential may also be linked to: (a) greater bone strength associated with greater body weight; (b) some protective mechanism; (c) different estrogen levels because of different body fat compositions or nutritional patterns; and (d) differential life expectancy.

In comparing the 1980 incidence of hip fractures (non-traumatic femoral neck or trochanteric fractures) in the total population of Mexican American, black and non-Hispanic whites residing in a large urban county of southern Texas (N = 576), the data indicate that Mexican Americans and blacks of both sexes have a lower risk of hip fractures (Bauer, 1988). The incidence of hip fractures increased with age for all three groups, but rates for blacks and Mexican Americans were lower than for non-Hispanic white females in almost every five year age group after age 50 (Bauer). There were no fractures occurring in Mexican Americans before age 55 or in blacks before age 60 (Bauer). The age-standardized incidence rate for females per 100,000 per year was lowest for blacks at 55, followed by 67 for Hispanics, and highest among white women at 139. It was concluded that blacks and Mexican Americans may benefit less from prophylactic therapies for osteoporosis than the majority population (Bauer). Although this may hold true for current cohorts of black elders, the possibility that it may change for some future subgroups of blacks who may have been on medications that are known to deplete calcium (e.g., prednisone) for prolonged periods of time should be considered.

Furstenberg and Mezey (1987) in a retrospective review of medical records of 119 hip fracture patients age 60 and older (37 percent of whom were black) over a three and a half year period examined the difference in short term outcome between the two racial groups. It was assumed that, because of greater health risks, mortality, and morbidity, blacks would have a poorer outcome following a hip fracture. Compared to white subjects, blacks in this study were of lower SES, more often on Medicaid, and had higher incidence of anemia upon admission. Measures of short
term outcome were mortality, length of hospitalization, and discharge destination. During hospitalization black patients were twice as likely as whites to develop mental impairment which was significantly related to hemoglobin level. The data indicate that: (a) the distribution of types of fractures and age distribution by fracture type were similar for both groups; (b) slightly more blacks than whites received hip replacements (50 percent vs. 38 percent), generally for femoral neck fractures; and (c) more blacks were treated non-surgically, (e.g., those with poorer health and more other diagnoses). Differences in mortality between the groups were not statistically significant. Black patients had longer hospital stays associated with greater illness and longer delays before surgery. In spite of the longer stays and a higher incidence of nonambulation upon discharge, none of the black patients were discharged to a rehabilitation center; most returned to the community with only a few going to long term care facilities. Factors affecting discharge destination were not examined. According to Furstenberg and Mezey (1987), the data suggest that whites use rehabilitation centers and long term care to recover from hip fractures while blacks return directly to the community. This may present a larger burden of mental and physical impairment for home health and other in-home community service agencies and family members; it also suggests the importance of more research on the need for increased post-hospital services targeted to black elders and their families.

Dementia

There is a paucity of data on late life dementia in black elders. It is generally assumed that organic brain disorders, whether Alzheimer's disease or multi-infarct dementia, have the same biophysical manifestations regardless of race or ethnicity (Valle, 1981). Although the prevalence is assumed to be the same for both blacks and whites (between five and ten percent) (Valle, 1981), it has been suggested that dementia may be more prevalent in elder blacks (Heyman, Fillenbaum, Prosnitz, Raiford et al., 1991; Heyman, Fillenbaum, Prosnitz, Williams et al., 1988; Still, K. L. Jackson, Brandes, Abramson, & Macera, 1990). Other data indicate a greater prevalence of Alzheimer's in whites as demonstrated in data collected from the Alzheimer's Disease Diagnostic and Treatment Centers in California (Yeo, Gallagher-Thompson, & M. Lieberman, 1992). The most accurate statement is that we don't know because of insufficient epidemiological data (Advisory Panel on Alzheimer's Disease, 1993). There does seem to be sufficient data to indicate that African American elders with dementia are also more likely to have a history of other chronic conditions including strokes which contribute to the disease (Heyman, Fillenbaum, Prosnitz, Raiford et al., 1991; Wallace, 1993).

In a study of autopsies performed between 1973 and 1986 at Johns Hopkins Hospital identifying 144 patients clinically documented with dementia, the data show racial differences in the etiology of dementia (de la Monte, Hutchins, & Moore, 1989). According to these data, whites exhibited a 2.6 times greater frequency of dementia...
than blacks and a 3.86 times higher risk for developing Alzheimer’s disease. Risk of Parkinson’s disease was also higher in whites, while blacks had 5.56 times higher frequencies of multi-infarct dementia and 8.44 times greater dementia associated with chronic alcohol abuse. The frequencies of all other causes of dementia were similar for both blacks and whites. Examination of data on 50 control subjects aged 60 and over from each racial group who were neurologically normal indicated that the frequency of histopathologic lesions of Alzheimer’s disease was significantly higher among whites than among blacks. Further study is needed to determine whether these findings are representative of larger populations or representative only of those populations served by Johns Hopkins.

Using the Duke sample of the Established Populations for Epidemiologic Studies of the Elderly (EPESE) study representing a stratified random household sample of 4,165 subjects, 54 percent of whom were black, Heyman and colleagues also found differences in the estimated prevalence of dementia among black and white elderly community residents (Heyman, Fillenbaum, Prosnitz, Williams et al., 1988). Once potential dementia patients were identified from the Short Portable Mental Status Questionnaire (SPMSQ), administered at base line, a final diagnosis of dementia for the 164 subjects was obtained by: (a) subject interviews; (b) informant interviews; (c) examination by a neurologist; and (d) a medical records check. Twenty-six subjects were found to have dementia; 19 were black and 7 were white. Medical records indicated that 13 subjects had previously been diagnosed as demented. Although prevalence rates were greater for blacks than whites, because of the small sample affecting statistical precision, these data must be interpreted with extreme caution. The types of dementia present in blacks in this study had a cerebrovascular component (Heyman, Fillenbaum, Prosnitz, Williams et al., 1988) supportive of similar observation by F. M. Baker (1988). Compared to whites, black subjects were more likely to report heart attacks, stroke, hypertension and diabetes, raising the question of whether diabetes might also be a risk factor for dementia (Heyman, Fillenbaum, Prosnitz, Williams et al., 1988). Further replication is needed to confirm the study findings and to explain the relationship of these chronic diseases to dementia in black elders.

Roca and colleagues (1984), recognizing that dementia can be missed and inappropriately applied, examined the accuracy of diagnosed dementia in 380 medical inpatients admitted to three Medicare units at Johns Hopkins Hospital (Roca et al., 1984). Dementia was diagnosed using both the Diagnostic and Statistical Manual of Mental Disorders (DSM-III) and the clinical assessment of house staff. Of the subjects examined, 56 percent were women, 75 percent were black and 46 percent were over 65 years of age. Patients who scored below 24 on two MMS (Folstein Mini-Mental Status) examinations and who had histories of cognitive decline but no disturbances of consciousness were objectively assessed as demented. House staff judged 109 (29 percent) of the patients to be demented when actually 57 (15 percent) fulfilled the standard diagnostic criteria. Conversely, in 12 cases the house staff diagnosed
non-dementia when diagnostic criteria indicated the reverse. Diagnostic inaccuracy indicated that diagnosis tended to be overlooked in younger patients and misapplied among the poorly educated (Roca et al.). Although all subjects age 40 and over were asked if they had learned to read and write, and those indicating "yes" were thus included in the sample, no literacy tests were given. Three of the measures and seven of the scoring points actually relate to the patient’s literacy skills without which the questions could not be answered correctly. It is the opinion of the writer that this may have been a contributing factor in misdiagnosis. In fact, the instruments used may have measured functional illiteracy rather than dementia, limiting their usefulness with blacks of advanced ages from lower SES backgrounds with minimal formal education.

According to Murden, McRae, Kaner, and Bucknam (1991), mini-mental status exams scores are affected by level of education but not race. There have been some attempts at correction for education however the diagnostic paradigm is still being refined (Stern et al., 1992). Blacks and whites with equal education seem to show no significant difference in mini-mental status scores (Murden et al.) and the same appears true when controlling for the effects of education (Pittman et al., 1992). On the other hand, higher rates of cognitive impairment in black community residents vs. white community residents may still reflect differences in educational levels between the two racial groups (Macken, 1986). If so, these differences should narrow in future cohorts of blacks with more formal education.

In one of the few community-based studies of dementia in black elders, Schoenberg, Anderson, and Haerer (1981) conducted a door-to-door survey of over 20,000 Southern rural blacks and whites and identified 77 subjects aged 40 and over who were diagnosed as having severe dementia. The diagnostic criteria used were: (a) the need for constant supervision; (b) an inability to perform one’s usual tasks; (c) nocturnal disorientation; and (d) abnormal mental status. All of these criteria must have been present for at least four months. Diagnoses were made by qualified neurologists, who excluded both depression and functional psychosis from the category of severe dementia. Dementia was grouped according to type, with Alzheimer’s disease being included in the category of primary chronic progressive dementia. The second category of simple chronic progressive dementia was defined as cases where other known etiologies could not be excluded. The findings indicate that the prevalence of dementia increased with age regardless of race or sex, which was also comparable with the Baltimore Study (Kramer, German, Anthony, Von Korff, & Skinner, 1985). The age-adjusted prevalence ratio per 1,000 was 7.7 for white males and 8.8 for black males. For females it was 8.7 for white females and 11.0 for black females. Regardless of race, females had a higher percentage of primary chronic progressive dementia and blacks had a slightly higher percent of cases diagnosed in this group. According to Kramer et al., the difference in the rate of severe cognitive impairment in non-white females and white females between the ages of 65 to 74 and age 75 and older is not significant. However, for males in these same age categories
the data indicate that non-white males have a higher rate of severe cognitive impairment than their white counterparts (Kramer et al.).

It has been suggested that different racial groups may have different patterns of dementing illness as a result of diet, environment, heredity, or these factors in weighted combination. Older black women may be more at risk for multi-infarct dementia as a result of higher rates of obesity and hypertension (F. M. Baker, 1988; Heyman, Fillenbaum, Prosnitz, Raiford et al., 1991; National Institute on Aging Information Programs, 1986). We do know that multi-infarct dementia (MID) accounts for anywhere from 10 to 20 percent of dementia cases and that higher proportions of MID or vascular dementia have been found in blacks than whites (Chang, Miller, & Lin, 1993; Yeo et al., 1992) though the data are contradictory (Still et al., 1990). Chang et al. (1993) provide an informative array of epidemiologic studies of dementia in differing cross-ethnic and cultural populations. Although empirical data are lacking, it has also been suggested that alcoholic dementia may occur at a younger age in U.S. blacks (F. M. Baker, 1988) and show a greater incidence (Still et al.).

The discussion of dementia in ethnic elder populations also suggests that: (a) behavioral effects may be exacerbated by sensory loss and physiological changes associated with aging; and (b) ethnic/racial elders with dementia have different forms of natural support which can delay institutionalization (Valle, 1981). There is limited data on the prevalence of psychiatric symptoms in African American elders with MID. The data that are available show that cognitive impairment may be associated with personality change and behavior problems. However, more data are needed to have any impact upon improved treatment (Y. Harris, Gorelick et al., 1994). It is imperative that more diverse populations of ethnic elders be included in biomedical and health services research on dementia (Advisory Panel on Alzheimer's Disease, 1993).

Changes in functional level, disorientation and confusion may be viewed by family members and caregivers as the natural changes that accompany aging, when they are not (F. M. Baker & Lightfoot, 1993; Williams, Luck, & Densler, 1992). In some instances this perspective may minimize any perceived need for institutionalization. In fact, ethnic elders suffering from dementia, as with other diseases, may enter the health care system during the more advanced stages (Valle, 1981; Yeo et al., 1992).

**Access and Health Care Utilization**

With the advent of Medicare and Medicaid-type health programs there has been some improvement in health care utilization among populations who have been underserved historically (Link, Long, & Settle, 1982). However, the affordability of health care services is still considered to be a barrier for some low income black elders (Jones-Morrison, 1986; Petchers & Milligan, 1988).
Between 1990 and 1993 the age-adjusted percent of persons age 65 and older with Medicare and private health insurance increased from 64 to 76 percent ("HHS Releases Annual Report on Elderly Health Expenditures," July 24, 1995). The number of elders with Medicare only, decreased from 23 percent to 15 percent. African American elders, however, in 1993 were more than twice as likely as whites to have Medicare as their only health coverage ("HHS Releases Annual Report...,"). When in need, these black elders use emergency room medical care (Ruiz & Herbert, 1984), utilizing hospital emergency services as a primary care resource more often than whites (L. B. Wilson & Simson, 1983).

Although sociocultural factors may influence health-seeking behavior (E. J. Bailey, 1987), the combination of race, income and health status is perhaps the best predictor of health care utilization among black elders (Gibbs, 1988; Wolf, Breslau, Ford, Ziegler, & Ward, 1983). This is particularly true for those low income black elders who often have the financial burden of relatively high out-of-pocket medical expenses (Petchers & Milligan, 1988; Watson, 1988). Literature on the health-seeking behavior of older blacks also lack consensus. The perspectives presented are often discipline-bound (Gibbs, 1988). Key factors discussed in that literature as influencing health-seeking behavior include: (a) affordability; (b) efficacy; (c) accessibility and availability of information; (d) patient satisfaction; (e) health beliefs; (f) illness perceptions; and (g) informal social support. For some impaired and disabled black community residents economics, access, gaps, and fragmentation in services present major problems in utilization of appropriate continuing care service (Jones-Morrison, 1986). The data also indicate that blacks would prefer more discussion of the medical regimen and the seriousness of their condition (Blendon, Aiken, Freeman, & Corey, 1989). Health care professionals should not underestimate their patients’ first hand experience with, and knowledge of, their conditions, nor the attitude of some that hospitals are a place to die (Blake, 1984).

There are those who would argue that: (a) the lack of culturally sensitive service design may also act as a barrier to health care utilization (Jones-Morrison, 1986; Portnoi, 1981); and (b) health care-seeking and decision-making are culturally specific, influenced by sociocultural factors (E. J. Bailey, 1987). In a qualitative study of 203 blacks in a large Northern metropolitan area, the data suggest a cultural pattern of health care-seeking which consists of six steps (E. J. Bailey). The following sequence of events was found to precede going to the doctor: (1) illness onset; (2) individual waits; (3) allows body the opportunity to heal itself; (4) evaluates daily activities and reduces work or perceived stress; (5) seeks advice from lay community (family member, close friend, church leader, or folk healer); and (6) finally attends health clinic or sees family physician. Subjects were from a population who had been born and socialized in the South, and their attitudes about the health care system were negative. In most cases they used folk remedies or had learned to live with their "ills." Although there were health care facilities available, there was no one within the facilities whom subjects could identify as their primary physician (E. J. Bailey).
Neighbors and J. S. Jackson (1984) in the National Survey of Black Americans (NSBA), using data collected from 2,107 subjects aged 18 and over between 1979 and 1980, examined demographic variables of persons reporting stressful problems with physical health, economics, death of a loved one, interpersonal relationships, and emotional state, in relation to coping behaviors (e.g., talking with lay or professional helpers). An analysis of the data by problem type indicated that people with physical health problems were more likely than people with other types of problems to use both informal and professional helpers. In general, informal help was used more frequently than professional help, and only 4.3 percent of the subjects entered directly into the professional system without any informal consultation. Of the demographic variables examined, age showed the strongest and most consistent relationship to help-seeking behavior. In comparison to younger subjects, the older subjects (55+) were: (a) less likely to seek informal help only; (b) less likely to seek both informal and professional help; and (c) more likely to be nonusers and seek no help at all. The implication seems to be that older blacks may be more socially isolated than generally assumed and that they tend to seek professional help or no help at all (Neighbors & J. S. Jackson). Although subjects used both professional and lay helpers, the data do not allow analysis of the sequence of helpers selected (Neighbors & J. S. Jackson). Other relevant data on African America elders mental health and help-seeking behaviors can be found in J. S. Jackson, Chatters, and R. J. Taylor (1993).

Petchers and Milligan (1988) found in a study of urban black elders that availability of health care services had two parts. It referred to the availability of the facility and the availability of a primary care physician within the facility who patients could see on a regular on-going basis. Patient dissatisfaction was related to lack of continuity of care from a primary treating physician. Petchers and Milligan report that the percent of persons not covered by health insurance, although similar to the 1982 figure of roughly 9 percent for the United States population as a whole, indicate that urban black elders in this study had a slightly lower non-coverage rate.

Using cross-sectional data from the NSBA, Neighbors and J. S. Jackson (1986), found that elders were more likely than persons aged 18 to 64 to have health insurance. However, 10 percent of black elders in this study age 65 and older had no health insurance coverage. There was a high rate of uninsured among those aged 55 to 64 years who were also likely to be poor, not in the work force, in an age range at risk for increased health problems, and who did not meet the age requirements for Medicare eligibility (Neighbors & J. S. Jackson). The near-poor blacks who lived in the South were especially at risk for not having any health care coverage (Neighbors & J. S. Jackson). This may have a relationship to earlier data indicating lower rates of hospital utilization for Southern blacks than whites (Link et al., 1982). It was also noted in this study that, for both black and white Southerners with no chronic condition, the use of physician services decreased with income (Link et al.).
Dissatisfaction with the health care system affects service utilization and is also directly related to the African American’s perception of: (a) the prescribed regimen; and (b) understanding of the difference between the quality of medical treatment received by poor people and their prognoses, which is very different from others in the society, who can afford better care in the midst of escalating health care costs (Report of the Secretary’s Task Force, 1986; Woolhandler et al., 1985).

Gornick et al. (1996), in one of the largest studies of Medicare recipients, support the data that black and white elders benefit from different health care services and technologies. The study links 1990 U.S. census data on median income by Zip Code with 1993 Medicare data for 24.2 million white and 2.1 million black (total N = 26.3 million) beneficiaries age 65 and older. The age-adjusted mortality rate, age- and sex-adjusted ratios for various diagnoses, and the age- and sex-adjusted rates for various medical procedures are evidence that, although race and income have an impact upon mortality and the use of health care services, the bottom line is that Medicare coverage per se does not guarantee the same medical services for both black and white elders. We don’t know how much of these disparities is due to not seeking specific health care services vs. not being offered these services (Gornick et al.). Gornick et al. suggest that race is the greater determinant of these disparities and that the health care received by blacks falls short with regard to chronic disease management.

Income and health care coverage, specifically Medicaid, are related to failure to have prescriptions filled among black elders. Bazargan, Barbre, and Hamm (1993) in a sample of urban dwelling, low income black elders found that 12.8 percent of subjects (N=57) failed to have their prescriptions filled. These figures were significantly higher for those without Medicaid coverage. These data tend to support the position that out-of-pocket expenses for low income elders may act as a barrier to obtaining required medications (Bazargan et al., 1993; Shulman, 1991). If a patient is unable to obtain the needed medication because of cost, we are likely to see that same patient again, suffering from complications that will be even more costly to treat than just the original diagnosis (Shulman). Since African American elders are three times as likely as white elders to be poor or near poor (“Elderly Women Were Nearly Twice As Likely As Elderly Men...,” September/October, 1992) they may be forced to go without the medications prescribed.

It is the opinion of Watson (1986) and Dressel (1986) that unless there are structural changes in society that will enable today’s blacks to become part of the economic mainstream rather than the "peripheral" labor market, black elders in the 21st century will face a bleak economic future. They will continue to be victims of poverty. They will also continue to delay seeking health care services if drastic changes are not made to break the cycle of poverty which resulted in approximately the same 33.9 percent of black elders living in poverty in 1987 as they were in 1978, (Center on Budget and Policy Priorities, 1988) and 1990 (NCCBA, 1992). As a result,
the pattern of being severely impaired when they finally do receive treatment will continue (Watson, 1986). They will most likely encounter decreased health services (Markides & Levin, 1987) because of the reality of escalating health care costs. Today, the reality of prospective payment systems is the exclusion of high-risk patients, who are often the black elderly poor (Jones, 1986).

As we approach the 21st century increased health care costs, especially Medicare, has led to serious consideration of some type of formal cost containment policy. A consensus seems to have developed that in the future we will have a health care system faced with a scarcity of resources. Discussion often highlights ethical concerns. Supporters align themselves on either side of the issue and neither group can ignore the fact that the elderly are the major users of health care resources (Binstock, 1994). This includes African American elders who suffer from multiple chronic illness.

As attention focuses upon cost containment, future scarcity, and fear of rationing we are presented with the proposition of medical futility (Schneiderman, 1994). By medical futility we mean treatment perceived as being of no clear benefit to the patient. Even health care providers lack a consensus on a definition of medical futility with which even they are satisfied (Scofield, 1994). Scofield suggests that even if we were to agree upon an appropriate definition, the assumption that physicians are value-free and would make decisions that are both scientific and objective cannot really be supported. Age, race, gender, and value placed upon the patient’s life to the medical field etc. are just some of the factors that enter into the decision (Scofield).

If the elderly in general are vulnerable to being perceived as a categorical group on whom our limited health care resources should not be wasted, then what about the health care needs of the black elderly, who may suffer multiple chronic illnesses in old age, incurring even greater costs? Particularly in light of the recent study of Gornick et al. (1996), Mouton, Johnson, and Cole (1995) point out that historically when circumstances may have seemed futile the response of African Americans has been to keep trying to overcome and "make a way, out of no way." This attitude could perhaps motivate African American families to want their frail elders to receive all of the health technology available to them and continue all measures of life-support (Caralis, Davis, Wright, & Marcial, 1993; Klessig, 1992; See Mouton et al., 1995). The potential for conflict between the principles of medical futility, a costly ill population, and cultural values that urge the prolonging of life is very real.

**Institutionalization**

Black elders have a lower rate of participation and are underrepresented in long term care facilities (Markides & Machalek, 1984; Moss & Halamandaris, 1987; NCCBA, 1987). Three to four percent of the total number of patients in nursing home facilities are black (Clavon, 1986; Cowell, 1983; Moss & Halamandaris). Explanations for this
underrepresentation include: (a) lack of financial resources (J. J. Jackson, 1980); (b) discrimination; and (c) suspicion and distrust of these institutions (Moss & Halamandaris; NCCBA, 1987). Some of the data on institutionalized elders of both races age 85 and over indicate that 8.4 percent of black males and 13.5 percent of black females are institutionalized as compared with 15.8 percent for white males and 26.4 percent for white females in this age group (NCCBA, 1987).

It is difficult to arrive at any kind of comprehensive analysis of black elderly users and non-users of long term care because the data are limited. Ethnicity is a strong predictor of nursing home placement, with blacks and Hispanics less likely to be placed in long term care (Green & Ondrich, 1990; Mui & Burnette, 1994). As with other populations the need for, yet lack of, in-home services was a major contributing factor to institutional placement (Mui & Burnette).

There is a paucity of empirical data on the role of health status in the decision for long term care of elder blacks. Markides and Machalek (1984) would suggest that perhaps blacks age 75 and older are more physically able and do not require institutional care. Other data indicate that a significant number of U.S. blacks (51 percent) age 65 and over are limited in their ability to perform the activities of daily living as compared with their white counterparts (Jones-Morrison, 1986), that these disabilities occur at an earlier age (Macken, 1986), and that prevalence of disabilities increases with age (Chirikos & Nestel, 1985). Engle and Graney (1995) examined newly admitted long term care residents. Both African American and white subjects were measured on: (a) mental status; (b) ADLs; (c) self-reported mood; and (d) self-reported health. According to these data the African American residents were more in need of special care. They exhibited poorer mental status and had greater functional impairment in all areas of ADLs which are supported by other data (Engle & Graney; Center for the Advancement of State Community Care Programs of the National Association of State Units on Aging, 1992). Although approximately 2 years younger than their white counterparts their medical status was worse (Engle & Graney). Although African American elders are less likely than whites to be institutionalized the data indicate that once they are institutionalized, they are less likely than whites to ever leave the institutional setting while still alive (Greene & Ondrich, 1990).

According to Bould, Sandborn, and Reif, (1989), approximately 40.2 percent of the old-old (85+) live with relatives other than a spouse (Yeo et al., 1992). Disabled black elders are more likely to live with their adult children than are their white counterparts (Bishop, 1986; Macken, 1986) and as they lose key helpers through death, they are replaced (Gibson & J. S. Jackson, 1987). It has been suggested that the frail black old-person living in a multigenerational household may be in a better position to negotiate the terms of their own care than whites because they are likely to be living in their own homes and because their incomes are important to the family's financial pool, affording them greater power (Bould et al.). The data also indicate that African American elders more often than whites enter nursing homes from having
previously lived with a son or daughter (Center for the Advancement of State Community Care Programs..., 1992).

In a small study comparing blacks and Japanese Americans on the importance of certain characteristics in choosing a long term care facility, the data show that for black subjects ethnic considerations, (e.g., food choices, staff with same cultural/ethnic background) were not a major factor (Chee & Kane, 1983). The most important consideration for blacks (90 percent) was the location of the facility because family members frequently used public transportation (Chee & Kane). These data indicate that hospital discharge planners and others involved in the selection and placement of black elders in long term care facilities should take into consideration whether the facility is conveniently accessible by public transportation.

Watson (1980) examined the stress and coping behaviors among black elders experiencing involuntary residential relocation. One hundred and twenty-six black elders aged 58 to 102 who had been residents in an urban Northeastern facility from 3 to 15 years were studied in a quasi experimental field study over a 17 month period. The determinants of positive adjustment to relocation were: (a) high religiosity; (b) high self-perceptions of economic status; (c) high physical self-maintenance ability; (d) positive outlook and disposition to social interactions; (e) high mental status; and (f) sustained quality relationships with family and friends. According to Watson (1980), residents who were the most needy, (e.g., poorer and with greater mental deficits), received less assistance in the relocation. They were also most dependent upon the State and other formal helpers.

For some black elders, foster home care would appear to be a viable alternative to institutionalization (Oktay & Volland, 1987). In a pilot program which provided support and assistance to both the foster families and care recipients, it was found that foster home residents maintained or improved their ADL and mental status scores. Foster home residents had better nursing outcomes than subjects placed in nursing homes. The typical foster home caregiver was female, black, middle-aged, married, and living with a spouse and children. Both foster families and prospective residents were given the choice of accepting or not accepting the placement; this opportunity for control may have had a bearing on the results. Blacks were more likely than whites to accept a foster placement. They were most often low income, single, and had lived alone prior to acute care admission from which they were discharged to foster placement. According to Valle (1989), access to long term care for ethnic elders is and will continue to be problematic because the health care system is not prepared to accommodate the numbers of frail ethnic elders who will increasingly need these services. He suggests that other barriers to long term care include: (a) lack of cultural readiness in the long term care system; and (b) lack of ethnic group readiness to utilize this service.
Clinical Care and Assessment

Clavon (1986) suggests that providing health care for black elders may offer a special challenge requiring that health care providers acknowledge the elder’s attitudes and belief systems. Key components of the gerontological nursing care guidelines for black elderly patients are: (a) recognizing and respecting patients’ cultural habits and preferences; (b) using teaching materials geared to patients vocabulary; (c) listening attentively to complaints and encouraging conversation to detect depression; (d) adapting assessment techniques to skin color, especially to detect cyanosis; and (e) attending particularly to dietary and spiritual needs, with appropriate referrals (Clavon, 1986). Kim (1983) discusses the need for health care professionals to recognize the attitudes and belief systems which they bring to the health care transaction regarding the different populations they serve. Berlin and Fowkes (1983) present a cross-cultural model with the acronym LEARN for health care delivery which incorporates the need to: (1) listen to the patient’s perception of the problem; (2) explain your (health professional’s) perceptions of the problem; (3) acknowledge and discuss the differences and similarities; (4) recommend treatment; (5) negotiate agreement. In their discussion of cross-cultural geriatric care, Seabrooks, Kahn, and Gero (1987) stress the importance of nursing assessment which takes into consideration: (a) adding up the capabilities rather than the losses within the patient’s sociocultural environment; and (b) knowing about the interrelationship of all personal dimensions when making health care decisions.

The nursing literature provides the bulk of the training material on health care delivery to different racial and ethnic populations (A. W. Baker & Cook, 1983; Bloch, 1983; Bloch & Hunter, 1981; Clavon, 1986; Dillard, 1987; Henderson & Primeaux, 1981; Jacques, 1976; Spector, 1985). According to Bloch and Hunter, nurses often cannot recognize color-related changes when they occur in dark-skinned patients. Since skin color changes in decubitus ulcer formation are not readily apparent in dark pigmentation, actual skin breakdown often occurs before decubitus formation is noted (Bloch & Hunter). These authors discuss methods of physical assessment unique to black patients which include a comparative skin color change assessment guide (Spector) for determining pallor, erythema, cyanosis, ecchymosis, petechiae, and jaundice. A major criticism of this literature is that it portrays blacks as a homogeneous population and often fails to acknowledge the broad range of physical, cultural, and social class diversity among blacks.

A broader picture of clinical issues, assessment, treatment and intervention for both physical and mental health care of the black elders is presented by McGadney, Goldberg-Glen, and Pinkston (1987). Psychosocial issues of aging are discussed within an historical context which, like that found in Jacques (1976), provides the background for understanding current health practices, attitudes and beliefs important to some segments of the older black population. A. W. Baker and Cook (1983) suggest that the stress, adaptation, and perceptions of illness are culture bound, and it
is their opinion that the most effective health care education should include knowledge of cultural diversity.

There are some black elders who bring to the health care setting attitudes and behaviors that in the past were effective coping mechanisms, but which now function as barriers to clinical care. These attitudes and behaviors are often part of a distrust of the "system," which Dancy discussed (1977) over a decade ago as a fearfulness and suspicion of society's institutions. Some of these black elders, having grown up in the South under a segregated and racist system, are very skilled in not saying what they really mean and in certain situations give the expected rather than genuine responses, which can be typical of any group. In both verbal and nonverbal communication, of which they are masters (C. Taylor, 1976), these older black patients may in essence say to the white health care provider performing a clinical assessment "That's for me to know, and for you to find out." This may keep health care providers ignorant of relevant information essential to effective health care intervention and compliance (Powers, 1982; Richardson, 1983).

Black elders may feel that man is afflicted with both natural and unnatural illnesses. However, the mere fact that they come to the clinic, acute hospital, or physician's office for treatment usually indicates that, although ambivalent, they are hoping for assistance (Carter, 1984). It is true that some black elders perceive illness as related to concepts of good and evil and that they categorize illness as natural vs. unnatural. However, there are many who do not and who choose to seek mainstream medical care. Differences in health beliefs, attitudes, and behaviors among black elders are most probably associated with their age cohort, SES, level of education, urban vs. rural residency, sex, and labor force participation. However, we lack empirical data that could shed light on the relationship between these variables and health perceptions. The literature that is available is reviewed in the following section.
PART III

HEALTH BELIEFS AND PRACTICES

Behavioral Determinants and Illness Perceptions

Although not generalizable to the black population as a whole, Snow (1981, 1983) provides observations which suggest that for some lower SES Southern black elders, the patients’ explanatory model of illness incorporates the concept of "natural" and "unnatural" illness (Carter, 1984; Powers, 1982). Illness is perceived as the result of being in disharmony with nature (Jacques, 1976; Spector, 1985), and it is closely allied with the notion of good vs. evil or godly vs. ungodly (Snow, 1983). For these particular elders, beliefs about sickness and illness are similar to those described by Barrett (1974) and Omoyajowo (1973) in which unnatural illnesses were believed caused by a neglect in fulfilling certain rites, by the breaking of taboos, or by the malevolence of another human being (Omoyajowo).

Natural illness is caused by not taking care of one's body, either through ingesting impurities, exposing one's self to cold air, following an inappropriate diet, e.g., rich foods, or divine retribution for sinful deeds (Snow, 1981, 1983). Unnatural illness, on the other hand, is believed to be caused by ("magical") roots, witchcraft, Voodoo or Hoodoo, or a hex, in which the evil has been "put on" the victim (Snow, 1981). Within the framework of this conceptual model, the ability to cure unnatural illness falls outside the realm of the physician and orthodox medical practices. In fact it is often believed that the more one goes to the doctor the more ill you become (Snow, 1983). Almost any illness extended over a long period time may from the patient's perspective eventually be perceived as unnatural if it does not respond to the usual treatment plan, or if the physician is unable to pinpoint its cause (Snow, 1983). It is also important to understand that for patients with this belief system the concept of chronic illness may not be a viable one. Within the framework of the patient’s explanatory model, most health problems are seen as curable, though inextricably linked to the proper remedy or power of the healer (Snow, 1983). One merely continues to search for the folk practitioner with the greatest power.

Within the framework of natural illness, blood is believed to vary in thickness dependent upon age and environmental temperature, with the elderly and very young being more susceptible to illness because of thinner blood (Snow, 1983). Normal blood is believed to automatically thicken in winter as a protection against acute and chronic conditions associated with cold (Snow, 1976, 1983). According to Snow (1983), high blood may be either too much blood or the condition in which it is believed that the amount of blood in the body has suddenly shot up to the head. Low blood on the other hand has a relationship to both anemia and blood pressure. The
data would indicate that these observations are based on nonrepresentative samples and the extent to which they are relevant to newer cohorts of black elders is unknown.

Some black elders may perceive illness as a tribulation to be overcome through prayer and faith in a Supreme Power (Berlin & Fowkes, 1983; Griffith & Mahy, 1984; Richardson, 1978, 1983; Snow, 1981), and in this case the art and power of healing is perceived as a gift from God (Richardson, 1978; Snow, 1981; Spector, 1985). While the art and power of healing may be perceived in this manner by many persons of different races and socioeconomic statuses, there are still many, including blacks, who know well that increased longevity and health are also positively affected by emergent biomedical technologies.

In a study of African American grandmothers as caregivers (N=71) rearing youngsters in preschool and early childhood, Minkler and Roe (1993) discuss how the subjects reframe their own ill health within the context of their everyday lives. Because of their caregiving responsibilities these grandmothers could not see themselves as being ill and incapacitated. Although they reported concern about their health, being in pain, and in some instances quite debilitated, their ill health was seen as a hurdle, not a barrier. In the "big picture" it was imperative that they be capable of caring for the children and "do what they had to do" (Minkler & Roe). Whether other African American elders engage in similar "reframing," is a gap in the literature that warrants investigation.

Use of Folk Medicine and Home Remedies

The emergence of black folk medical practitioners has been suggested as a proactive response to racial segregation and the need by black elders who grew old during the first three quarters of this century to meet their health care needs (Watson, 1984). It has a long and complex history that dates back to traditional West Africa (Jacques, 1976), and it can be seen in the practices of some Judeo-Christian fundamentalists and lower SES blacks who were socialized in the rural South (Snow, 1981), as well as blacks born in the Caribbean (C. S. Scott, 1981). The extent to which these elders still rely on folk medicine is unknown (Report of the Secretary’s Task Force, 1986). We do know that the health care-seeking trajectory is not necessarily a straight one that leads to the orthodox health care system (E. J. Bailey, 1987; Gibbs, 1988; Watson, 1984), and it is determined in part by the individual’s perceptions of the efficacy of self-treatment (Gibbs, 1988). When faced with the stress of physical illness, the adaptive response most often used by blacks is to seek out relationships with others. The lay referral health system is usually consulted first rather than the orthodox health care system (A. W. Baker & Cook, 1983; Watson, 1984). Blake (1984) found that among rural black Sea Islanders of South Carolina and Georgia individuals sought first the traditional (folk) treatments.
One of the principal protagonists in black folk medicine is the "Old Lady," sometimes called "Granny" (Jordan, 1975; Watson, 1984). As the local consultant for common ailments, she is well versed in herbs and home remedies (Jordan; Watson, 1984). Like other black elders she is perceived as the bearer of tradition and is skilled in her knowledge of folk healing (Watson, 1984). She may often treat her own ills with a variety of substances ranging from over-the-counter patent drugs to baking soda, epsom salts, garlic, herbs, and roots (Carter, 1984; Fuller, 1989; Richardson, 1983; C. S. Scott, 1981; Snow, 1983). This is especially true for poor, rural Southern black elders, but is perhaps not necessarily limited to this population (Fuller, 1989; Snow, 1981, 1983; Watson, 1984, 1988). Black elders who practice and believe in the efficacy of folk medicine live in communities where the social network reinforces its practice and use (Watson, 1984). The effect of folk, or popular explanatory models of health and illness, is that it reduces the patient's compliance with the professionally prescribed regimen and encourages self-medication (M. F. Mitchell, 1983, 1984).

In a study of folk and modern medicine practices among Southern rural blacks, Watson (1984) found that the factors associated with expressed need for herbal medicine were: (a) gender; (b) feelings of physical or emotional disturbance; (c) health ratings; (d) religiosity; and (e) the number of years of schooling. There was evidence to indicate that income had a curvilinear relationship to the expressed need for herbal medicine. However, economic resources per se did not determine the use of folk/lay medical practices (Watson, 1984).

The local pharmacists in predominantly black communities are also respected and consulted for their knowledge of healing and folk remedies (Watson, 1984). It is the author's observation that black pharmacists, particularly in small family owned pharmacies located in black urban communities, play an important medical role similar to roles of some pharmacists observed in Jamaica (M. F. Mitchell, 1984). They are familiar with both the folk or lay concepts as well as the scientific perspective, and they can translate the physician-prescribed medicines into familiar terms that give better meaning and clarity to their customers (M. F. Mitchell, 1984). They perform this service in an atmosphere of trust and openness which allows for effective communication (Fuller, 1989). These local pharmacists often carry basic drug ingredients such as turpentine, sulphur, assafetida, and camphor, as well as other patent medicines, e.g., Lydia Pinkham's Vegetable Compound, Humphrey's 11, and Black Draught which are frequently purchased and used by their elderly black patrons (Fuller; Watson, 1984). Boyd, Shimp, and Hackney (1984), in a study of home remedies used by 50 black elders, provides a comprehensive overview of the remedies reported, their ingredients, and the ailments for which they were used.

As in the case of the extramarital affair when the spouse is the last to know, the health care professionals may often have no knowledge of the patient who is simultaneously using the prescribed medical regimen in conjunction with other folk medical practices (Blum & Coe, 1977; Heurtin-Roberts & Reisin, 1992; Powers, 1982;
Richardson, 1983; C. S. Scott, 1981; Watson, 1984). In certain situations, combining folk and prescribed regimens may be detrimental, particularly if the elder has other serious chronic illnesses (Blum & Coe). Perhaps the best way to tease out this information is through informal interaction with the patient, rather than a formal, matter-of-fact, problem-oriented interaction (Powers). Among blacks, folk medical beliefs and practices vary, as does the language used to describe their components, particularly those beliefs which are specific to nativity, e.g., Southern-born vs. Caribbean or West Indian (Henderson & Primeaux, 1981; C. S. Scott). However these beliefs are important in issues of compliance with the prescribed medical regimen (Heurtin-Roberts & Reisin).

Health care professionals should not assume that black elders are homogeneous. They should attempt to tease out relevant information by approaching the patient with respect and sensitivity. This will allow for a more meaningful patient/clinician interaction that encourages patients to share their beliefs and practices. However, as Downes (1994) also points out to health care providers, there are African Americans for whom these folk medical practices are totally foreign and many of these same home remedies, health beliefs and practices are also shared by low income whites from the same part of the country.

ISSUES OF CAREGIVING

The Family and Informal Support Network

The literature suggests that black elders have a more extended range of relationships in their living arrangements, and a broader based caregiving network (Bould et al., 1989; Macken, 1986). The informal and reciprocal support systems of black elders are fluid, dynamic and responsive, accommodating the needs of the elder (Gibson & J. S. Jackson, 1987). Similar to whites, the black family is the primary caregiving institution, and it consists of both kin and non-kin. (See R. J. Taylor, 1988, for a comprehensive overview of the black family and aging.) It has been suggested that blacks are more inclined than whites to accept the elder as part of the nuclear family and, traditionally, to regard them with respect which has been reinforced by their Judeo-Christian beliefs (Mutran, 1985; Richardson, 1980; Wylie, 1976). Unlike their white counterparts, blacks throughout the life cycle have been part of a family network in which family members have always been dependent and interdependent upon one another, and age has had a positive relationship to receiving assistance from adult children (Mutran, 1985).

Although this may be the case for some, F. M. Baker (1987) discusses how as early as middle-age, some black males may find themselves as marginal members of society and isolated from their families. Elderly African American males age 65 and older represent 38.4 percent of the black elderly population (NCCBA, 1992). They are a minority within a minority (Kart, 1991). Although 60 percent are married and living
with a spouse (Kart, 1991), the data also indicate that these male elders who are separated/divorced and live alone have less contact with their children than males who live with others (Spitze & Miner, 1992). Although the literature tends to apply the same generalizations about family and kin to the elderly black males as females, relationships and contact with adult children in later life may be related to earlier patterns of living arrangements and marital status (Spitze & Miner), when "papa" was not around. They are a diverse population with different cohort experiences for the young old (65-74), than the old-old (age 85+) (Kart). This may be the case for some but it does not add to our knowledge about the service needs of those outside of this structure.

Since the first review J. S. Jackson, Chatters, and R. J. Taylor (1993) have added empirical understanding of the multidimensional and heterogeneous quality of aging in black America. Research findings on social networks, health, identity, political participation, retirement, and work (some of which is reported elsewhere in this paper) is a major empirical contribution to black aging. These cross-sectional data, with a life span focus, help clarify some of our broad romanticized assumptions about social support and, for example, the role of the family and the church in the lives of this population. Both psychological and social dimensions of aging are examined. Most importantly, these data compiled from the National Survey of Black Americans (N=2,107) ages 18 years and over, richly document the diversity in the black elder population. (J. S. Jackson et al.).

Other data on racial and cohort variations in endorsement of filial responsibility norms show weak support of these norms among both blacks and whites (Hanson, Sauer, & Seelbach, 1983), perhaps reflecting the social attitudes of the times. Findings based on data collected in 1971 from a stratified random sample of 1,950 adults in a major Midwest metropolitan area do not support observations of an extended supporting black family. Although not significant or central to this study, there was a relationship between age and the self-reported willingness of blacks to take care of sick parents, which was higher for those age 31 to 59 and 60 and over than in those 30 and under (Hanson et al., 1983). A significant piece which is missing is an analysis by social class and income. Some of the items in the scale used to measure filial responsibility (e.g., "married couples should want a home with enough room for their parents to feel free to live with them") assume that one perceives control over life circumstance, making such options possible. The writer is speculating that this may not have been a valid measure of filial norms for blacks in this study, which may account for these findings. Conway (1985-1986) indicates that black female elders are more advantaged in terms of social support than white elderly females to deal with medical problems. While Spitze and Miner (1992) shed light on aspects of social class, in this study older African American women with higher educational levels had less person to person contact with their children (Spitze & Miner). The literature is beginning to reflect gender and class differences in familial support.
Social support is generally perceived as a positive factor in the lives of elders. In a comparative study of 191 low income elders (half of whom were black, and the remainder white) ages 74 - 92 this is not the case (Biegel, Magaziner, & Baum, 1991). African American subjects with larger social networks and greater support experienced increased levels of stress associated with depressive symptoms. The sample in the study was selected from two social service agencies. The mean household income was between $334 and $416 a month. Admittedly there were no data on the stress and depression levels of the other members of their social support networks (Biegel et al.). The discussion and analysis imply that the data are applicable to a fairly broad spectrum of black elders and they are not. We need to remember that these data were collected from low income elders. Their social networks probably represent the underclass, e.g. the poorest of the poor, whose life circumstance at the very bottom of the social strata is probably fraught with a multiplicity of stressors. These stressors could easily have an impact upon the elders. The age of the subjects (mean age 80 years) may be a factor in their perceived ability to cope.

Using a subsample of 581 older blacks ages 55 and over from the NSBA, Chatters, R. J. Taylor, and J. S. Jackson (1986) found that married respondents tended to select their spouse as helper to the exclusion of others. Although adult children were high on the support hierarchy, they were subordinate to the choice of spouse. Unmarried elders substituted sisters, friends, or neighbors as helpers. Women were more likely than men to choose their daughters, and health status did not differentiate choice of helper. Discussion of these data suggest that: (a) Southerners have a broader helper network than elders from other geographic locations; and (b) immediate family resources may be depleted by the fact that the notion of helping others may encompass a broader circle than family, and also by black out-migration patterns (Chatters et al., 1986).

In comparing social support for different cohorts of black elders, Gibson and J. S. Jackson (1987) found similarities among the younger (65 to 74), middle (75 to 79) and very old (89+) groups in: the proximity of immediate family members, reports of close friendship networks, the mean numbers of helpers, frequency of contact/help, perceived adequacy of support, and exchanges with adult children. Family members provided instrumental support while friends and church members provided emotional support and prayer. Data on the oldest group (80+) indicate more: (a) extended and varied group of helpers, including friends and church members; (b) instrumental support; and (c) financial and emotional support given by parents to their adult children. Support given to adult children shifted from instrumental to emotional and, lastly, to financial in response to changes in the elder’s physical abilities.

The relationship between support and functioning are complex (Gibson & J. S. Jackson, 1987). Depending upon the quality and quantity of support, it can have both a positive and negative effect (Ell & Haywood, 1985-1986). Gibson and J. S. Jackson (1987) found in their sample that large amounts of support appeared to decrease
functioning. These data are in keeping with those of Ell and Haywood who found, in a study of black, Hispanic and Anglo patients recovering from their first heart attack, that support enhanced the psychological well being of Hispanic subjects, but not functional status. It may be that too much support undermines the individuals' coping and feelings of being effectual in their own lives, and that receiving more than one is able to give is actually stressful. This issue was raised by Gibson and J. S. Jackson as a possible explanation for decreased functioning. Ell and Haywood suggest that during times of severe illness, support may reflect greater dependence which reinforces feelings of despair.

Crucial to many black families has been a reciprocity of shared goods and services. Some of the data suggest that in old age, black elders are believed to be entitled to reciprocity for the care they have provided their children and grandchildren when they were young and unable to care for themselves (Richardson, 1980). This reciprocity may be influenced more by socioeconomic factors than by race (J. Mitchell & Register, 1984). Although one must take into account individual personality traits which affect attitudes and behavior related to issues of independence and dependence, the writer would suggest that for some frail and disabled black elders being dependent and interdependent upon family members for care is merely part of a life long continuum. Nobles (1976) presents the conceptual framework that the self is seen as part of a collective identity. In this instance, the collective identity is the family. Dependence and interdependence are fluid. One merely provides care when one is able and receives care when life circumstances, e.g., age, health and financial resources, dictate (Seabrooks et al., 1987). This conceptual framework of dependence and interdependence is worth investigating since it may play an important role in the choices made by both the caregiver and care recipient.

Bishop (1986) analyzed data from a subsample of a survey in which subjects were disabled, unmarried, and community residents age 65 and older with incomes less than $5,000, and found that non-white females with the highest mean income were still more likely to live with others than were their white counterparts. For aged females in this study, income was less important than other factors in the propensity to live independently (Bishop). Choi (1991) adds to our knowledge data which indicate that widowed and divorced women of color who have raised more children are more likely to live with an adult child. Although these data present some interesting issues, in the mind of the writer they are overshadowed by a data analysis (N=2,076 widows and 810 divorcees) and discussion which categorized subjects as white, non-white and "other." Fortunately, there is less of this type of research and reporting in the literature. Many black family caregivers have limited financial resources which may present a hardship in caring for aged parents or relatives (Bould et al., 1989; NCCBA, 1987; Valle, 1981). In the National Long Term Care Survey (1982), approximately 53 percent of the functionally impaired black elders and their families had a total annual family income of between $3,000 and $7,000 (Macken, 1986). How this breaks down in terms of real income after basic expenses have been taken out for food, rent, and

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utilities is unknown. Understanding the financial needs based upon real income would be meaningful and more helpful in understanding the actual burden faced by caregiving families (J. J. Jackson, 1988).

Caregiver Strain and Burden

An article by Gonzales, Gitlin, and Lyons (1995) reviewed the research reported in 11 studies of African American family caregivers of patients with dementia. In summary, the findings include the following:

1. No differences found in burden between white and African American caregivers of dementia patients was reported by some studies (Morycz, Malloy, Bozich, & Mertz, 1987; Wood & Parham, 1990), while others found that African American caregivers report less burden (Hinrichsen & Ramirez, 1992; Lawton, Rajagopal, Brody, & Kleban, 1992). Lawton et al. also found more favorable scores among African American caregivers on indices of caregiving ideology, caregiving as an intrusion, and caregiving satisfaction. Mui (1992) found that African American daughter caregivers reported less role strain although the caregiving role demand for them was greater than among the white daughters. Caregivers in larger households showed less burden (Wood & Parham). Impairments in instrumental activities of daily living and memory and behavior problems were less stressful, for African American caregivers, in part because of a greater confidence in their ability to handle the problems (Haley, Coleton, Isobe, & West, 1992). This was not the case for their white counterparts (Haley, Coleton et al.).

2. African American caregivers were more likely to use cognitive coping strategies such as reframing the situation and express a determination to survive (Minkler & Roe, 1993; Segall & Wykle, 1988-89; Wood & Parham, 1990; Wykle & Segall, 1991).

3. Less depression and fewer gastro-intestinal symptoms were reported by African American caregivers, but they had more respiratory and neurological symptoms and a greater number of illnesses with poorer self-rated health than white caregivers (Haley, West et al., in press; Lawton et al., 1992).

4. African American caregivers knew about formal services but used them infrequently, relying more on informal support services. The greater the impairment of the dementia victim, the more likely they were to use formal services (Cox & Monk, 1990). Inner-city caregiver information and training programs geared to the population they serve can be effective in teaching caregivers how to provide personal care grooming without injury to themselves (Williams et al., 1992). Haley and colleagues (in press) found no difference between African American and white caregivers on their reliance on extended family members for informal support services.
Young, Kahana, and Waller (1988), in a study of racial aspects of caregiver strain and burden, found that black caregivers were younger than white caregivers (age 55.8 vs. 62 years for whites). According to Young et al., these caregivers were less likely to be the spouses of the care recipients and more likely to be adult children or relatives. Twenty-nine percent of black caregivers were other than a family member while for whites only 12 percent fell into this category. Although black subjects perceived and provided more hours of care, they also perceived their caregiving roles as being less burdensome. Black caregivers in this study reported less role conflict and appeared to be less depressed than was true for their white counterparts (Young et al.). Blacks also indicated receiving more help from family and friends. The reported differences in caregiver strain and burden may be the results of: (a) the younger age of black caregivers; (b) the attitude that one is supposed to care for aged parents and relatives who are unable to care for themselves in reciprocity for care received; and (c) greater instrumental assistance from family and friends. Race in itself may not be a significant predictor of burden (Young et al.)

Minkler, Roe, and Price (1992) make a case for caregiver strain among African American grandmothers (middle-aged and older) parenting the second-time-around. Adult children on drugs, grandchildren, financial, job, and family troubles combine to create high levels of stress for these older women (Burton, 1992; Minkler & Roe, 1993; Minkler et al., 1992). Caregivers age 60 and over perceived their physical health as having declined since taking on their caregiver role. Although this was not statistically significant (Minkler & Roe, 1993) it is consistent with other data which indicate both psychological and physical cost in performing their grandparent caregiving roles (Burton).

In a study of 71 African American grandmothers living in Oakland, California the median age of subjects was 53 years with 42.3 percent of subjects age 55 and older (Minkler & Roe, 1993). According to these data, the most burdensome role was that of caregiver for grandchildren while also caring for a frail parent or elder. Grandmothers with this dual caregiving responsibility perceived the emotional costs as extremely high and report being "pushed to the max" (Minkler & Roe). Other grandmothers parenting grandchildren and coping with adult children addicted to drugs report exacerbation of medical problems including diabetes, arthritis and stroke (Burton, 1992). Research on the long term physical and emotional consequences of caregiving for these older women is needed since their caregiving responsibilities will most probably be long term (Burton & Devries, 1992).

In a small pilot study of the black family's experience with dementia, Segall and Wykle (1988-1989) examined the problems, stresses, coping strategies and assistance needed for caregivers who were caring for a moderately impaired family member. The sample of 59 caregivers was predominantly female, ages 28 to 86, with a mean age of 61 years. The majority (53 percent) of these caregivers were either daughters or daughters-in-law of the elderly care recipients, who ranged in age from 60 to 96 years,
with a mean age of 80. Self-reported overall health of the caregivers was good or excellent, and they reported low levels of stress. Behavioral problems exhibited by the care recipients were the most difficult situations with which to cope. Consistent with data from other sources, the need for more adequate and affordable respite was also cited as being problematic. The coping styles most often employed by these black caregivers were: (a) religion (e.g., prayer, faith in God); and (b) accommodating oneself to the situation, (e.g., accepting the situation, making the best of it). However, African American caregivers are also less likely to seek information about dementia (Segall & Wykle, 1988-1989; Wood & Parham, 1990; Wykle & Segall, 1991). Subjects also expressed the need for individual and family counseling, and education. Clavon (1986) suggests that, because of the black value system and strong cultural prescriptions against placement of the elders in long term care institutions, the family may be in need of special placement counseling to resolve these value conflicts.

Religion and the Church as a Caregiving Institution

It is widely acknowledged that the black church has been a major institution within black communities, although disagreement exists on how best to conceptualize and measure religiosity for empirical investigation. The general view is that blacks are a highly religious people (Henderson & Primeaux, 1981). Roughly 90 percent of poor blacks maintain church affiliation (Snow, 1983) and black adults of all ages show high levels of religious involvement in both organizational and non-organizational religious activity (Chatters & R. J. Taylor, 1989). Some data suggest that age itself is not a determinant of church involvement among blacks (Heisel & Faulkner, 1982); however, most of the current research based upon cross-sectional studies fails to unravel the different effects of age change and age differences related to religious behavior and participation. It has also been suggested that for certain populations of blacks, perceived religiosity is related to faith healing (Richardson, 1978; Snow, 1983). Examination of cross-sectional data on stressful life events (e.g., financial, racial, and health) from the NSBA indicates that organized religious involvement and, to a lesser degree, non-organized subjective religiosity help bolster feelings of self-esteem and of personal control (Krause & Van Tran, 1989).

Using cross-sectional data from 2,107 black NSBA subjects ages 18 and over, Chatters and R. J. Taylor (1989) found that there is an increased concern with religious matters as one ages, and that age change is an important part of age differences in religious involvement. In this study, measures of organizational church involvement (e.g., attendance and membership) and non-organizational involvement (e.g., prayer, religious programs, and materials) indicate that the highest levels of religious involvement were observed in the oldest age groupings (65 to 74, 75+). Women generally reported higher levels of religious involvement, with the exception of males age 75 and older who reported slightly higher levels of church membership than females of comparable age. The overall tendency was for older age groups to report higher average levels of religious behavior and attitudes than younger age groups. It
is interesting to note that women age 55 to 64 report higher rates of church membership than women age 65 and older. The opposite appears true for males, with men 75 years and over reporting higher rates of church membership than men aged 55 to 74 years (Chatters & R. J. Taylor).

In a study of 122 poor inner-city black elders with a mean age of 68 years, it was found that three quarters of the subjects were church members (Heisel & Faulkner, 1982). Elderly women scored higher than men in religiosity as measured by the ritual dimension, e.g., prayer, giving thanks to God, reading the Bible, and going to church, and approximately one third of the sample felt that they had become more religious over time.

In black culture the church plays an important role as a caregiver for its sick and frail members (Gibson & J. S. Jackson, 1987; Richardson, 1980; R. J. Taylor & Chatters, 1986). The church fellowship is an extended family network and support system regularly visiting the "sick and shut in." This includes both the home bound and institutionalized elder (Chee & Kane, 1983; Richardson, 1980). Church members provide emotional, spiritual, and instrumental assistance (Gibson & J. S. Jackson; Richardson, 1980) and should not be overlooked in planning supportive community based intervention programs for frail elders (Hatch, 1991; McGadney et al., 1987).

The informal support and assistance offered by the church is often second only to the support provided by the actual family (Gibson & J. S. Jackson, 1987; R. J. Taylor & Chatters, 1986). The author’s own research (Richardson, 1980) suggests that many older blacks, particularly the middle-aged old, and the old-old, expect to be cared for by their relatives, church family, and friends in later life. The instrumental support and assistance of church members may allow some of these elders to remain at home despite illness and frailty (Richardson, 1978). However, the church does not act as a surrogate family organization (Smith, 1993). These data support evidence of greater church member participation among elderly African American females rather than males (Smith). The plight of black elders who fall outside of the institution of the church, and the frail, chronically homebound old-old, is still much less known. Who they are, where they reside, and the coping mechanisms they employ to handle poor health with increasing limitation and disability need to be examined with specific attention to issues of gender.

**Health Promotion**

Health promotion (an intervention) and disease prevention are the focus for the next decade. However, there is very little empirical literature that clearly documents its impact upon African American elders. Although the objectives and goals of health promotion are for an increased healthy life span, reduced disparities in health status, and greater access to preventive services, a review of the existing data indicate an underrepresentation of low income and minority elders. (Dorfman, 1991). Gornick et
al. (1996), in their study of health care utilization, mortality, and morbidity, including influenza immunization for 26.3 million Medicare beneficiaries, found that the least affluent beneficiaries (≤ $13,100) for both whites and blacks, when compared with their highest income counterparts (≥ $20,501), showed a 26 percent lower rate of immunization for whites and 39 percent lower immunization rate for blacks.

Health promotion programs have most successfully reached white middle class populations who both believe in a healthy lifestyle and are motivated to make the changes necessary to increase the likelihood of maintaining health (Dorfman; Yee & Weaver, 1994). Preventive health measures such as cancer screening tend to be used more frequently in groups with higher income and educational levels (Boring et al., 1992).

For older African Americans the data are not encouraging. Blacks continue to have poorer health, higher disease incidence, shorter life expectancy, and higher mortality and morbidity. Although differences in health status between the two races can in part be attributed to social determinants there are modifiable risk factors, e.g. high blood pressure, high cholesterol levels, smoking, diet, obesity, lack of exercise, and alcohol consumption over which the individual has some control. It has been argued that ethnogeriatrics and culturally sensitive health care services are a key (Brangman, 1995) as well as recognizing the increased diversity of current and future cohorts of African American elders (Dorfman, 1991).

Admittedly the data are lacking on preventive health programs to promote wellness and better management of chronic diseases in elderly black populations. In one of the few documentations, F. R. Butler (1987) describes an individualized behavioral self-management approach developed at residential facilities of the National Caucus and Center on Black Aging, Inc.. The results of the program demonstrated improved diabetic control and weight control. Uzoma and Feldman (1989) stress self-efficacy training for inner-city African American populations specific to gender and age to improve adherence to the diabetic regimen.

In a study of physical activity using a subsample of elders ages 70 to 79 (Longitudinal Study On Aging [LSOA]) taken from the 1984 National Health Interview Survey, the data (self-report) indicate that African Americans were less physically active than white subjects (Clark, 1995). Level of education accounted for the majority of racial variation in physical activity. Self-efficacy theory is offered in partial explanation of the findings. However, Clark does not address in the analysis that less educated subjects were also older with considerably more functional limitations than the more educated respondents. The questions raised are the relationship between functional limitations and physical health, as well as the role of cohort on attitudes regarding physical activity.
It has been suggested that effective health promotion programs may be those initiated and supported by the already existing institutions and social networks in the black community (Schoenrock, 1990; Yee & Weaver, 1994). This was the case with Save Our Sisters (SOS), a pilot demonstration project in breast cancer screening intervention to decrease the gap between African American and white females (Eng, 1993).

The project targeted 2,600 older black women ages 50 - 74 years residing in a rural county of North Carolina. Steuart's Social Change Model was used to incorporate the women themselves into finding a solution. For example, the project director hired for the program was a long term (50 years) resident of the county (Eng, 1993). Together with an advisory committee they identified important social groups to which members of the target population belonged. Next, they implemented a program of training for lay health advisors, who had been selected from the focus groups as "natural helpers." Four cohorts of health advisors were trained. This pilot program appears to the writer to have begun as a theoretically sound and effective intervention. We await the data collection (Eng). Mandelblatt, Traxler et al. (1993), in an experiment comparing breast and cervical screening rates between a nurse practitioner clinic vs. physician-based site, found that the availability of screening during a routine visit seemed to be the most effective strategy. Immediate screening rather than delayed availability of cancer screening was the most effective for this population of low income elderly females (Mandelblatt, Traxler et al.). This is supported by other data showing that older black women have higher participation in breast cancer screening at a mobile clinic offered in their neighborhoods than at a local hospital (Roberson, 1994). Follow-up with the actual screening experience also seems to be an integral component in intervention (Roberson, 1994).

Quite possibly a relationship exists between social support networks and cancer screening in older populations (Kang & Bloom, 1993; Kang, Bloom, & Romano, 1994). This was the hypothesis in a study of 617 African American San Franciscans age 55 and older (Kang & Bloom). The data indicate a positive relationship between social support and use of mammography and occult blood stool examination. Being enrolled in an HMO seemed to increase the use of both screening procedures (Kang & Bloom). Health promotion programs to improve cancer screening for black elders need to be varied, educational and tailored to the specific population being targeted. Some female elders are under the misconception that they do not need to have regular cancer screening because they have had hysterectomies. Approximately 30 percent of women in the current cohort of elders, who have had a hysterectomy still have an intact cervix (J. E. White, Begg et al., 1993) and need education regarding the need to continue with cancer screening even after a hysterectomy (J. E. White, Begg et al.). The primary physician has to routinely request and follow-up on screening recommendations (Breen & Kessler, 1994).
There is some good news. Progress is being made. Cancer mortality rate in blacks has declined by two percent (Boring et al., 1992) and through age 69 African American women are screened for cervical cancer at similar or higher rates than white women (L. C. Harlan et al., 1991). Contrary to what the literature might infer blacks from lower socioeconomic strata are also concerned about their health and they recognize the potential value of the health care system (Weissfeld, Kirsch, & Brock, 1990). Successful health promotion should focus upon teaching skills for specific health behaviors rather than merely focusing upon the same pejorative health beliefs such "as smoking is bad for your health" (Weissfeld et al., 1990).

Health education on hypertension and "wise use of medication" was approached creatively making use of video technology (Hirsch, Gutierrez-Pickett, & Margolis, 1991). Elderly African American and Hispanic populations were targeted. The low budget videos made use of non-white actors and it included humor along with serious dialogue. Pre- and post-test seem to indicate that the videos were effective as a learning tool when accompanied with small group discussion that reinforced the video’s content. Discussion was led by health educators and pharmacists (Hirsch et al.).

Health promotion represents a shift away from the powerful health care provider. In essence the health care provider is now giving back to the patients major responsibility for their own health. This shift is towards a fitness and self-care modality in which the patient takes on an active rather than a passive role. For some African American elders this shift may be a difficult one, and one they don’t want to accept. For others, health promotion may be derailed by efforts at self-care that exclude the health care professional at crucial points in the disease progression. For others a healthy lifestyle of diet, exercise, and non-smoking, etc. is a way of life. The challenge for health promotion programs is determining which elders of color fall into which groups.
PART IV
FUTURE IMPLICATIONS

Summary and Conclusion

The overall objective of this review has been to examine the literature on black elders (age 65 and older) and health for the purpose of developing a training curriculum specific to health care professionals. The review has included some of the relevant literature on health and middle-aged blacks (age 55 and older) which has been developed in part to explore the observed racial differences in disease risks and mortality in those age ranges, as well as the assumption that health status and health practices earlier in the life cycle have an impact upon health in old age.

Although there has been a proliferation of literature on health and older blacks, the literature specific to elderly blacks and health is limited by the paucity of empirical data that is relevant, applicable and generalizable to larger populations of black elders. Research findings are often weakened by conceptual, theoretical and methodological inadequacies that impact upon their usefulness and conclusions (J. J. Jackson, 1988). The literature does not distinguish between health and age change versus age differences (J. J. Jackson, 1988). This requires more longitudinal data on large representative samples of blacks. The data currently available fail to clearly delineate or resolve the issue of observed racial differences in disease morbidity and mortality systematically and in a comprehensive manner (J. J. Jackson, 1988). Black elders are not a homogeneous, monolithic population; however, the fundamental assumption and tendency of much of the available literature is to view them as such. Too often this literature makes health comparisons between blacks and whites using whites as the reference group. Clearly, judgements about what is excessive morbidity or mortality for blacks must not simply be based upon findings of higher morbidity or mortality among blacks when compared to whites. The usefulness of this approach at this point in the development of the field of ethnogeriatrics is questionable. Although it was no doubt initially helpful in identifying key research areas it has failed to provide relevant data for appropriate and effective health care intervention in the current cohort of black elders and it leaves the health issues of future cohorts of black elders cloaked in the rhetorical maze of fortune telling.

Much of what is available also fails to provide a clear picture of within-group differences in health status, and functional limitations, that could identify specific populations of black elders who are at greater risk for later life disease morbidity and mortality. Gornick et al. (1996) make a significant contribution to understanding who, in the elderly population, receives which type of medical treatment per diagnosis. It suggests meaningful areas for future investigation and must be read. However, the literature still does not identify those who are hardy or the coping mechanisms used.
by those with chronic diseases to maximize their functional abilities. There is some suggestion that the instrumental and emotional support of the black family and the black church are effective coping mechanisms (Chatters et al., 1986; Gibson & J. S. Jackson, 1987; Richardson, 1980; Segall & Wykle, 1988-1989) and that blacks may exhibit a willingness to care for parents when they are ill (Hanson et al., 1983); however, we need to distinguish between attitudinal data and behavioral data with a greater focus upon the later.

Gibson and J. S. Jackson (1987) suggest that blacks aged 65 to 74 represent a more debilitated group than those between the ages of 75 to 79 years. Their data also indicate that older black persons aged 80 to 84 may be more physically disabled than the age group that is 85 and over (Gibson & J. S. Jackson). These types of within-group comparisons with large representative samples of blacks are generally lacking in the literature and should be the trend for future research. Much of the data on level of disability comes from self-report, which suggests that the next logical step is to examine self-report as it relates to objective measures of health and actual observed behavior, again focusing upon within-group differences.

Numerous explanations have been offered regarding utilization of health care services. A major gap in the literature is empirical data on elder black users and non-users of health care services. There are populations of elder blacks who have had fewer surgical procedures throughout the life cycle than whites (M. W. Linn et al., 1980). There are others who underutilize or do not have access to invasive diagnostic and surgical treatment procedures (e.g., coronary angiography and coronary bypass) for CHD/IHD (Oberman & Cutter, 1984; Wenneker & Epstein, 1989). There are others who appear to make no use of the existing health services (Neighbors & J. S. Jackson, 1984), and there are still others who, because of health beliefs, still tend to make use of folk medical practices and remedies in conjunction with the prescribed medical regimen (Powers, 1982; Snow, 1981, 1983; Watson, 1984). Whether these variations in utilization are by choice versus circumstance, or the specific type of health care coverage which makes each alternative a viable choice has yet to be empirically and systematically determined. Although there has been discussion of the presumed effects of spiraling health care costs, the impact of prospective payment, and federal cutbacks in Medicaid and community health programs, we lack the empirical data to determine the actual effect these changes have had upon the health of black elders. The same is true for the impact of Diagnostic Related Groups (DRGs) in limiting hospital stays. The data indicate that there are middle-aged and black elders with no health insurance, including Medicare (Neighbors & J. S. Jackson, 1986). If the data are correct and financial resources do affect health-seeking behavior, then we need a health insurance program that would allow more blacks elders, particularly those who are uninsured and at risk, an opportunity to take advantage of these services.

Examining of the literature on specific diseases, for example, the data on CHD, is insufficient and contradictory with the question still remaining of whether U.S.
blacks have a higher incidence and prevalence of CHD than whites, independent of known risk factors and social class. There is a significant gap in this literature requiring more reliable data on larger representative samples of blacks and more extensive examination of the effects of social determinants on gender differences in CHD prevalence, morbidity, and mortality (L. Adams, Africano et al., 1984). Much of the literature on older blacks and health is liberally sprinkled with the discussion of genetic/biological/racial differences as a partial explanation for black/white differences in mortality and morbidity. In the CHD literature the prevailing tone in the discussions of genetic predisposition or biological factors suggests that blacks have some kind of physiological protective mechanism which keeps the incidence of CHD no higher than it is, considering all other risk factors (Gillum, 1982). The opposite is true for the cancer literature which suggests that there is some unknown biological or racial factor in blacks which causes some forms of cancer to be more aggressive and which may serve as a possible explanation for observed racial differences in cancer survival (Baquet, 1988). In discussions of the greater prevalence and related mortality associated with hypertension in blacks, the literature again implies that racial differences are a key factor; however, most of these studies were done on small, non-representative samples and generally do not control for social class or within-group variability (Myers et al., 1989). Similar to the available data on CHD, the hypertension literature focuses upon racial differences in mortality and morbidity, but the data are inconclusive. The relationship between weight and hypertension appears not to be as strong or as clear in blacks as it is in the white population (Boyle, 1970). Myers et al. suggest the need to examine hypertension from an integrated multidisciplinary biobehavioral approach to determine the concurrent effects of biological, psychological, and behavioral processes in the pathophysiology of this disease. It has also been suggested that researchers use the existing emergent technology for ambulatory blood pressure monitoring to assess stress reactivity as it relates to hypertension under more realistic conditions (Myers et al.).

Cooper (1984) uses race as an antecedent variable in his discussion of the current epidemiological research. He delineates how variations in disease susceptibility have not been shown to fall along racial lines for any common disease with the "possible exception" of hypertension. He presents a logical argument for a social (e.g., environmental and economic), rather than a racial, disease causality paradigm to explain the observed black/white differences in mortality. The historical, social, and political attitudes which perpetuate the use of "race" in epidemiological research (Cooper, 1984) offer limited utility particularly in view of the current social, economic, and political climate within the country. It also runs the risk of repeating the historical abuse of research findings on racial differences (Myers et al., 1989) and should be reconsidered for better conceptual and theoretical indices of major health concerns.

There are now more data on socioeconomic, sociocultural, and environmental factors that impact upon excess mortality. Socioeconomic status and other social
determinants seem to be more important than race in the epidemiology of CHD (Cooper, 1984; James, 1984a) and other chronic diseases among black elders. The dynamics of gender, social class, lifestyle, environment, educational level, occupation, and marital status within the elderly black population, and the way these factors may function as adaptive or maladaptive for health status, still need to be fully explored. The question still remains regarding which segments of the elderly black population are predisposed to CHD, hypertension, diabetes mellitus, cancer, and cerebrovascular disease; conversely, there is also the need to determine the characteristics of black elders who, in spite of the odds, do not suffer from the morbidity and mortality associated with multiple chronic conditions in old age. Research needs to be more focused to better identify and isolate factors which work as protective mechanisms; in so doing perhaps light could be shed on health issues and aging that might be applicable to the majority population. Future research should begin to identify meaningful areas of heterogeneity in health within the subpopulations of black elders. One of the gaps in the current research is the failure to examine any significant difference in health risks and life expectancy for black ethnic subgroups such as Haitian American, Jamaican American, or groupings based upon nativity.

The literature also makes a case for improved quality of care based upon increased health technology and increased patient education. It is the opinion of the writer that improved health care education should focus on the successes of medical technology within the various black communities. The need for improved diagnostic screening for dementia in black elders is suggested (Roca et al., 1984). Research findings raise the question of the validity of diagnostic measures used to assess dementia in ethnic and racial populations (Roca et al.). Instead of measuring cognitive deficiencies, we may actually be measuring literacy, particularly in some populations of frail black old-old, who are rural and Southern-born, and who have had limited formal education. It is very likely that the inability to read and thus respond correctly on measurement instruments (e.g., Mini-Mental Status exam) leads to a misdiagnosis of dementia in certain black elder populations. In light of the dearth of data on different etiologies and the prevalence of dementia, particularly the Alzheimer’s type in blacks (de la Monte et al., 1989), this is a prime area for additional investigation.

The reasons for the current lower utilization of nursing home care by black elders need to be clarified, especially in relationship to questions of fewer financial resources. In a discussion of access to long term care, Valle (1989) expresses concern about whether current policy planning addresses the present and future long term care needs of black elders in light of the competition that will exist with other elder populations vying for the same long term care resources. It is the writer’s opinion that in the future this vying for services will include the majority of health care services which will be in shorter supply because of the reality of health care costs.

One study suggests that access to long term care facilities by means of public transportation may be important to certain groups of blacks who visit institutionalized
family and relatives; however, there is need for additional information on who selects institutionalization and who chooses other alternatives. The literature needs to begin to examine whether these choices will change with future cohorts of black elders, particularly those whose children have become more upwardly mobile. Specific attention needs to address the natural supports of black elders as they impact upon the continuum of independent vs. institutional living and social attitudes of ethnic groups towards dementia as they impact upon this continuum of care (Valle, 1981).

Although some black elders may enter into the health care system with different health beliefs and perceptions based upon folk medical practices, religion, and causality related to natural vs. unnatural illness, this is not representative of the majority of the population. In fact, it is most probably limited to the old-old, lower SES, and rural Southern black elders rather than to other groups. Since the population of black elders is constantly evolving as members die and are replaced by new individuals reaching age 65, we need to determine which cohorts of the current black elder population adhere to these beliefs and practices as evidenced by their behavior.

Other major topics of importance include delivery of health care, physician-patient communication, satisfaction with the health care received, clinical care and assessment, and appropriate health professional etiquette. The nursing literature provides the most comprehensive overview of ethnic and racial issues in the delivery of geriatric care; however, it is often fraught with gross overgeneralizations. Whatever our knowledge, if health care delivery is not presented in a manner acceptable to the individual patient, it is lost. It may very well be that this manner is no different for black elders than any other population which, as the literature suggests, is based upon mutual respect.

**Implications**

Within the past decade, the quantity, but perhaps not the quality, of literature on health and older blacks has more than doubled. This literature reflects the trends in the ethnogerontologic literature in general. It often uses the health conditions of the majority population as the standard for determining black health conditions (J. J. Jackson, 1988). Consequently, we are unable to really determine the etiology and epidemiology of health conditions as they impact on the aging process of older blacks (J. J. Jackson, 1988). It is, however, encouraging to note that the National Health Interview Survey began in 1985 to increase their sample size of blacks (J. J. Jackson, 1988) and that there are large data bases which include blacks 55 years and over (Gibson, 1988). Reporting of black life expectancy by education, occupation, and marital status is also necessary to help clarify issues of life expectancy for various subgroups within the black population.

More people are living to reach the ages characteristic of greater morbidity. Included in this population are black elders whom demographers tell us are growing at
a faster rate than the total 65+ age group (R. N. Butler, 1989; Manuel, 1988; Manuel & Reid, 1982; Valle, 1981). With increasing age and increasing numbers of ethnic elders, we are likely to see increased risk of poor health, frailty, and disability (Chirikos & Nestel, 1985), which will result in an increasing demand for health care services (Valle, 1981). This reality is in keeping with J. J. Jackson's (1980) observation that health care programs have helped increase the longevity of black elders (males, in particular) who are more frail and more in need of health care services that will provide care for these elders. What are the changing circumstances and resources available to families who may be providing this care?

Policy implications also include access to health services, knowledge of services, availability, and affordability. The acceptability of services received also warrants investigation to design appropriate health policy and programs. Based on the literature related to cutbacks in federal monies for health care programs (Cooper, 1981; Ruiz & Herbert, 1984; Uehara, Geron, & Beeman, 1986) and the impact of escalating health care costs, it seems apparent that some black elders may continue to be forced into choosing to go without much needed health care services because of costs and the need to stretch their incomes to cover other areas.

To be as knowledgeable as possible concerning the existing data on blacks (in this case, the health of the middle-aged and elders), we desperately need a better system for locating and identifying these works (J. J. Jackson, 1988). Not only does J. J. Jackson (1988) describe the necessity of sometimes leafing through or scanning journal contents to locate relevant material, (The writer has, at times, employed this method), but Sheppard (1989) in her annotated bibliography Current Clinical Research on Geriatric Black Populations Since 1985 also describes having resorted to the same hand search of the literature because relevant literature was frequently unidentifiable in topical indexes and in journal abstracts. There is tremendous need for more federally funded, comprehensive annotated bibliographies of works focusing upon health and blacks that are current and that provide annual supplements (J. J. Jackson, 1988).

The challenge ahead is multifaceted; race in and of itself does not appear to explain differences in: (a) health risks; (b) health status; (c) disease course; (e) etiology; or (f) difference in mortality and morbidity between blacks and whites. The task at hand is clearly to answer some of the empirical questions regarding ethnic elders and health which have been raised and delineated in sources such as Anderson and Cohen's (1989) summary of the future directions for clinical research. The next step would be to implement appropriate and effective health policies. Clinicians will continue to see increasing numbers of female black elders as opposed to males. These women will bring to the health care transaction the circumstance of gender and situations specific to the psychosocial aspects of aging unique to who they are and their life experiences. It will be of great importance that clinicians obtain detailed social, family, and medical histories of these patients. Since much of the literature assumes that blacks are a homogeneous population, it is important for
clinicians to realize that they cannot afford to assume or to make judgements about disease morbidity and mortality in black elders that have been based upon comparisons of blacks and whites. Clinicians may also find themselves caught wanting to provide quality care to economically poor black elders, yet hindered by their lack of financial resources and/or insurance coverage. The future of black elders' health care is clearly in the hands of committed clinicians and researchers who will attempt to solve these challenges.

Addendum

As in the parable of the sower of seed, the fate of the seed is determined by whether it falls on good soil, among weeds, or by the side of the road. If one compares the empirical data presented in the first review to the "seed" it appears that some of these data "fell on" good soil apparent in the increased research that explores the heterogeneous complexity of the African American elder population (J. J. Jackson et al., 1993) and the implications this holds for future cohorts of black elders. The same is true for the data which are consistently beginning to show that race in itself, as in the data on cancer, does not explain differences in mortality (Baquet et al., 1991; Boring, Horm et al., 1992; Freeman, 1991). We must determine the role of poverty, education, and low socioeconomic status in disease prevalence, mortality and morbidity. This is of major import, particularly in light of Gornick et al. (1996), who seem to indicate that race, perhaps even more than income, accounts for greater mortality, morbidity, and disparities in both quality primary patient care and prevention of disease in older blacks. The fact that there is some decrease (two percent) in the incidence of cancer (Boring et al.) and an increased number of African American women being screened for cervical cancer (L. C. Harlan et al., 1991) is some evidence of having planted some of the seeds of health promotion in more fertile ground.

Some of the data have generated other questions and we need to continue research and analysis. For example, the data on underuse of cardiac technology, e.g. coronary bypass and angiography. Although blacks seem to undergo these procedures more often than in the past we need to closely monitor their pattern of utilization. The increase may actually be an artifact of increased use of these procedures in general. The seemingly increased use among older African Americans may tend to level off rather than continue to increase. We have yet to explore causal relationships that determine utilization of these procedures. It would seem to the writer that we should explore issues of trust in the doctor-patient relationship. We should also begin to examine within group differences, e.g. social class, geographical locale, age, gender, etc. in choices of intervention procedures. Attention should also be given to utilization of opthalmic health services.

Clearly, some of the literature and data have gone astray. It seems safe to say that a number of researchers are clearly perplexed about the role of genetic predisposition, specifically the notion that genetic pools determining skin color are in
some way related to disease prevalence and morbidity (Klag et al., 1991; Schwam et al., 1995). This area of research seems to be leading us away from more valid and relevant issues. It would seem to the writer that we need to explore the relationship between the effects of institutional racism, stress, and disease as a difficult but perhaps more fruitful area of investigation. There are data which already seem to be moving us in this direction.

Data on glaucoma and cataract surgery are relatively new and it is hoped that they would fall on fertile ground initiating strong glaucoma education programs specifically tailored to reach middle class, working class, lower class, underclass, and working poor populations of older African Americans. Older blacks continue to be at risk for greater mortality and morbidity in later life. Gender differences are quite evident with prostate cancer a major killer of black men and breast and cervical cancer a major killer of black women. Health promotion programs must increase in number and effectiveness. This can be accomplished if, we stop thinking of older African Americans as a part of some monolithic culture of sameness.
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