

## CHAPTER 21

# Gender and Health Status

JENNIE JACOBS KRONENFELD

### 1. INTRODUCTION

Compared to other areas of gender sociology, health is one in which issues of gender as a social construct and sex as a physiological construct intersect to the largest extent. Clearly, physiological differences between men and women play a role in health status. Moreover, some of the major life events that also relate to health have a physiological basis (child-bearing, menstruation, menopause). Thus, variation in health status between men and women, and in the importance of various types of diseases and health problems, is a complex mixture of both gender as a sociocultural factor and physiological variations between men and women, as well as individual-level variation among men and women. The last 20 years have seen an increased importance placed on genetics and genetic factors in health status, resulting in heightened emphasis on biology and physiology in explaining variation in health status. In fact, genetics as an explanatory factor for differences in health status is now viewed by epidemiologists as more important than at any other time in the history of medicine.

In an era of growing emphasis on genetics and heredity in health status, the role of social factors must still be addressed. The importance of gender (as one among several major social factors) in health care use and in variation in how people respond to illness continues to receive a great deal of attention by social scientists and growing interest within the health services research community as well. This topic is addressed in the next chapter, however, in terms of the topic of this chapter, health status and gender, current research has focused less attention on social factors. Nonetheless, one important debate in recent studies concerns the role of factors such as income and racial/ethnic classifica-

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JENNIE JACOBS KRONENFELD • School of Health Administration and Policy, Arizona State University, Tempe, Arizona 85287-4506

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tion as social categories rather than as physiologically based comparisons (Cooper & David, 1986; Krieger & Fee, 1994a). Some of these studies focus on gender and sexism as well as race/ethnicity and racism as interactional processes and their implications for health status (Krieger, 1990; Krieger, Rowley, Herman, Avery, & Phillips, 1993). When gender constitutes the specific focus, one issue is often the interplay between social assumptions about men and women and physiological and genetic differences.

Psychosocial factors are likely to affect the health of men and women differentially because they often engage in social roles that differ in quality if not in quantity. At present in U.S. society, as well as in most others, differences in role expectations; role burdens related to domains of paid work and family; and imbalances in power, equality, and control are all factors likely to create differentiation in health status between men and women (Rodin & Ickovics, 1990). These psychosocial factors go far beyond genetics, although genetic differences will underlie health status variations.

A recent book on women's health has argued that models of women's health need to be reconceptualized (Ruzek, Olesen, & Clarke, 1997). The editors argue that models of health need to emerge that reflect the social, not just the biological, dimensions of health and illness. For the most complete models, psychological and spiritual dimensions could also be added. In addition, they suggest that if women's health is conceptualized as embedded in communities, not just in women's individual bodies, this would help to expand the definition of health away from a more narrow disease-focused model and into a social model.

Interest in women's health in the United States by governmental agencies has increased in recent years. In 1986, a National Conference on Women's Health Status jointly sponsored by the Food and Drug Administration and the Public Health Service Coordinating Committee on Women's Health was held in Bethesda, Maryland (Proceedings of the National Conference on Women's Health, 1987). The New York Academy of Sciences and its section on Women in Science (the newest section in that organization) held a special symposium entitled "Forging A Women's Health Research Agenda" in October, 1992 (Sechzer, Griffin, & Pfafflin, 1994). One of the goals of this conference was to frame an agenda for future research on women's health. Based on these and other efforts, the National Institutes of Health have clarified policies concerning the inclusion of women as research subjects within almost all funded research and have funded a special Women's Health Study to examine issues of breast cancer, use of estrogen supplements after menopause, and other health problems specific to women. Given the growing interest in the overall topic of women's health, no one chapter can include all the material. This chapter focuses most heavily on physical health status, but also includes a discussion of mental health issues. I also focus most heavily on gender and health status within the United States, although some international comparisons are briefly discussed. In the first section, I discuss views of women held by the medical profession in an historical context, including placing the increasing attention to women's health within the context of the women's movement generally and the women's health movement specifically. The second section deals with physical health concerns, examining overall mortality and morbidity rates. The third section focuses on life cycle concerns specific to women. The last section before the conclusion deals with mental health issues. Some material is presented in several sections about specific diseases and important health behaviors, because there are important linkages between these topics and health status and gender, although health behavior and health care are addressed in more detail in Chapter 22.

## 2. HISTORICAL VIEWS HELD BY THE MEDICAL PROFESSION OF WOMEN AS PATIENTS

### 2.1. Views of Women Held by the Medical Profession in the Past

The history of medicine and the manner in which the field has dealt with women and health status has not incorporated complicated views of gender, or even complicated views of biological factors and health status. The introductory chapter of this volume discussed the biological approach used by several founders of sociology to the study of men and women and their assumption that males and females are innately different and unequal in their intellectual, emotional, and moral capacities. This negative view of women found in much early sociological theory is also found in medical models of women and health status from the 1800s. Feminist writers have amply documented how early beliefs and practices concerning women by the medical profession viewed many of their everyday physiological functions as abnormal and as the reason for viewing all women as “sick” most of the time (Ehrenreich & English, 1972, 1973). Women were expected to be “indisposed” by monthly periods and pregnancy; to rest in bed and limit their social roles, which thus condemned women to a public image as sickly and weak. In the early writings of physicians in the United States, females were portrayed as weak, hypochondriacal, hysterical, and chronic invalids. While the worst of these stereotypes are now totally discredited, some of the damage remains, as in controversies about premenstrual syndrome (PMS) and whether this disqualifies women from certain important positions in society. Medical training emphasizes a distrust of natural processes and a focus on pathology, so that even natural events such as pregnancy and menopause become viewed as situations requiring medical intervention (Klass, 1987). Given the focus on specific symptoms and signs in medical training, if a woman has no other pathology and does not demonstrate emotional problems thought common in women, reproductive functions still may become the foci of the greatest concern by physicians (Klass, 1987; Wilkinson & Kitzinger, 1994).

### 2.2. The Women’s Movement and Its Impact on Views and Studies of Gender and Health

The gender bias of biomedicine discussed in the preceding section continued until the 1970s. Up to that point, women were omitted from much medical research on conditions such as heart disease, diabetes, and cancer, unless the cancer affected specifically female organs. Moreover, the care for women’s reproductive organs was relegated to one subfield of medicine, obstetrics–gynecology (Martin, 1987; Turshen, 1993). The resurgence of the women’s movement in the 1960s and 1970s led to the development of a new epistemology in academia that eventually influenced medicine also. One well-publicized merging of these concerns was the publication of *Our Bodies, Ourselves: A Book by and for Women* by the Boston Women’s Health Collective (1973). The growth of a separate women’s health movement has helped increase public awareness of special problems concerning gender and health (Geary, 1995; Ruzek, 1978). This effort to include more women in health-related research has been led by the National Women’s Health Network (Narragan,

Zones, Worcester, & Grad, 1997). Over time, health problems for women began to be viewed more inclusively, and the medical community grew more respectful of treating women as mature adults, not childlike creatures who needed extra help.

Some of these trends were national and others had an international dimension as well. The 1980s saw the growth of the woman's movement beyond the United States and developed countries and the emergence of nongovernmental women's organizations. Some of these organizations in other countries focused on the fact that the only access many women had to biomedicine was through contraceptive services (Muecke, 1996). The 1994 International Conference on Populations and Development in Cairo, Egypt, helped to shift the focus away from population control to a broader focus on reproductive health and the empowerment of women (Crane & Issacs, 1995).

In the United States, one initiative, which has a long-term potential to improve the health of women, is the effort to include women more extensively in medical research as subjects. The establishment of the Office of Women's Health in the National Institutes of Health in 1990 helped to lead to policies requiring that women be included as subjects in medical research (LaRosa, 1997; Mastroianni, Faden, & Federman, 1994). This broadened focus is now also part of official U.N. pronouncements that stress gender equity in health and provide worldwide standards that governments can implement (Muecke, 1996). The Women's Health Initiative of NIH is one example of a major, federally funded study with this broadened focus. This study is examining many issues of health status specific to women, including the effects for menopause, the consequences of hormone replacement therapy, dietary modifications and nutritional supplements on menopause, and breast cancer, among other problems (Cotton, 1992; Pinn, 1992b). Improved knowledge about health conditions specific to women, as well as greater inclusion of women in studies of major diseases that affect both men and women, have the long-term potential to improve the health status of women. Despite some large, new studies that focus on women as research subjects, a recent review of AIDS studies found that of the 14,799 participants enrolled in such trials as of January, 1992, only 1151 were women (Stapleton, 1997). Because of such low numbers of women in studies, the Food and Drug Administration proposed a rule in September, 1997 that would no longer allow researchers to exclude women from potentially life-saving clinical trials purely on the grounds of reproductive toxicity concerns. The women's movement in general, as well as the women's health movement, have been important in leading the medical research establishment to recognize previous systematic biases in the exclusion of women from much biomedical research (Clancy & Massion, 1992).

### **3. LIFE EXPECTANCY AND MORTALITY DIFFERENCES BETWEEN MEN AND WOMEN**

Gender differences in life expectancy and mortality are very different in the United States and most other nations today than they were in past centuries or even at the beginning of the twentieth century. Until the post-Civil War period in the United States, and this century in much of the world, women had a shorter life span than men, resulting mostly from complications of childbirth as well as from problems of chronic malnutrition in many regions of the world (Pinn, 1992a). Chronic malnutrition has often been worse for women in many societies, because men may be fed first and take more of the available calories, and because in situations of limited food availability, women often will limit their own

intake to provide for their children. Overall, progress in improving life expectancy for both sexes is one of the important achievements in U.S. health status in the twentieth century, with almost a 30-year improvement in life expectancy from the beginning of the twentieth century to the present (National Center for Health Statistics, 1992). Although women were already outliving men in this country by 1900, the difference then was less than 2 years (Phillips, Sexton, & Blackman, 1997). Between 1940 and 1970, the differences in life expectancy at birth between men and women increased from 4.4 years in 1940 to 7.6 years in 1970. The gap remained stable throughout the 1970s and then began to shift slightly, as male life expectancy began improving from better management of major chronic diseases. One important aspect of the improvement in female life expectancy from 1950 to 1989 was a 90% decline in maternal mortality during that time period. By 1993, life expectancy at birth was 6.6 years longer for women than for men, or 78.8 years for women versus 72.2 for men (NCHS, 1996). Projections indicate that life expectancies will continue to increase for both sexes (Phillips, Sexton, & Blackman, 1997). The advantages in health status of women are true at every life stage (Strickland, 1988). More male fetuses are conceived (125 male for every 100 female fetuses) but 27% more boys than girls die in the first year of life. By the time people reach 100, only one man is alive for every five women (Rodin & Ickovics, 1990). In every age category, more men than women die.

Gender and race are both important as factors in life expectancy, although gender is more important than race in predicting life expectancy. Both white and African-American women have a longer life expectancy than men and, despite the racial gap in life expectancy, African-American women born in 1989 are expected to outlive white men by 0.8 years (NCHS, 1992). While life expectancy consistently has been lower among African-American women than among white women in the United States, trends have shifted back and forth over the past 30 years. Between 1970 and 1984, the difference in life expectancy between African-American and white women narrowed from 7.3 to 5.1 years because increases in African-American women's life expectancy were outpacing those of white women. During the mid-1980s, however, life expectancy for African-American women declined somewhat and resulted in an increase in the differential (NCHS, 1996). The life expectancy gap between African-American and white women narrows after age 65 to only 2 years.

While causes of death vary some by gender, changes in causes of death are occurring, especially for women. Heart disease continues to be the leading cause of death among all women, as it is among men (NCHS, 1996). If the figures are looked at separately by age groups, there are some differences. Heart disease is the second leading cause of death among women 45 to 74 years of age, following cancer. The types of cancer that are most important as causes of death for women are also changing. While breast cancer is still a very important cause of death for women, and indeed one of the causes of death most feared by women, lung cancer has now surpassed breast cancer as the leading cause of cancer death among women (Strickland, 1988). For women 75 and over, heart disease is the leading cause of death. For men, heart disease is the leading cause of death for all those 45 and over, with cancer in second place. Other leading causes of death for women 45 to 74 years of age are chronic obstructive pulmonary disease, stroke, and diabetes. Taken together, heart disease, cancer, and stroke account for 67% of American women's deaths (WHO, 1992). Some racial differences occur among women. Heart disease has been overtaken by cancer as the leading cause of death for white women, but remains the leading cause of death for African-American women. Stroke and diabetes are also more

common causes of death for African-American women; their rates of mortality from diabetes are twice as high as those of white women and nearly twice as high for stroke (Collins, Rowland, Salganicoff, & Chait, 1994).

Even though the United States has seen great improvements in life expectancy, it is not the world leader in this statistic. For women, life expectancy at birth for women is highest in Japan (82.5 years for those born in 1990), followed by France with 81.5, Canada with 80.6, and Sweden with 80.1 years. American and British women have a similar life expectancy of 78.6 and 78.7, respectively (WHO, 1992). One thing that is true throughout most of the world (with the possible exception of South Asia) is that women live longer than men, even in developing countries in which the average life expectancy is low (Kane, 1991).

An easy, but incorrect, conclusion to draw from the data presented so far is that because women live longer than men they enjoy a higher quality of life in terms of health status or that they are healthier in general than men. Why women now live longer than men is still a matter of debate and research, but many experts believe that females may have more biological protection than males in some respects, although both are at risk for many of the same health problems. While many of the gains in the past century in life expectancy for women came from reductions in maternal mortality, this area is unlikely to lead to further improvements in life expectancies for women except in South Asia. Most of the recent gains have come from reductions in mortality for people 45 years and older. Men have benefitted from this less than women. Men often die from a health problem while women live on but with a serious disability, so that it is much less clear that women achieve a higher quality of life as regards overall health status than it is that they live more years than do men (Collins et al., 1994). Whether this is a biological difference alone or a biological difference aided by social considerations (such as that women may monitor their health more closely than men and be more willing to visit a health provider quickly at signs of health problems) is not yet clear (Collins et al., 1994; Kane, 1991).

While data on specific diseases and issues for women are discussed in more detail in the next section as part of a discussion of changes across the life cycle, some differences in morbidity (sickness) need to be reviewed before considering some of the explanations for gender variations in health. Although men are at higher risk than women for many fatal diseases, women have a higher risk of incurring many nonfatal chronic conditions, such as some mental health problems discussed in a later section of the chapter, as well as such physical health problems as arthritis and osteoporosis. Arthritis is the most common condition for women over 45 and affected one half of all women over 65 years of age in 1993–1994. Hypertension is less common for women under 50 than for men in the same age group. By age 70 to 79, however, the prevalence of hypertension is 12% higher among women than men (NCHS, 1996). Because so many of the conditions that are more prevalent among women are disabling, women tend to have higher rates of activity limitation and disability than do men. For example, the proportion of women 45 to 64 years of age with activity limitation due to arthritis was 2.7 times that of men. In 1991, the proportion of middle-aged and older persons reporting difficulty performing home management activities and/or physical care activities was more than 75% higher among women than men (NCHS, 1996).

Differences between men and women are also noted for acute diseases and conditions. Women over the age of 45 have higher rates than men of infective/parasitic diseases, respiratory conditions, digestive system conditions, and injuries. Health statistics are better at capturing serious health problems than minor ones. Many experts believe

that health problems that women experience more often than men, such as the bothersome symptoms of nonfatal chronic conditions and acute conditions, are less well captured by the major national and international data sets that have provided most of the statistics discussed so far in this chapter (Macintyre, Hunt, & Sweeting, 1996; Verbrugge, 1985). The issue of better collection of data for serious problems as compared to more minor problems has often been conceptualized as the “iceberg of morbidity,” in which only a small part of total morbidity is visible through most available health statistics. Even though only a small part of the total “iceberg of morbidity” may be visible in health statistics, the gender hue of the iceberg probably varies from deeply feminine at the bottom, to gradually fading, to more heavily masculine at the top, but the bulk of the iceberg is probably a feminine shade (Verbrugge, 1985).

One recent British review of gender differences in health concluded that the pattern of sex differences in morbidity is more complicated than conventional wisdom would assume (MacIntyre et al., 1996). This article reviewed two recent British data sets and argued that the direction and magnitude of sex differences in health vary according to the particular symptom or condition and according to the life cycle phase. They found that only six of seventeen conditions (depression or nervous disorder, varicose veins, high blood pressure, migraine, piles or hemorrhoids and cancer) show a female preponderance at all or most ages and the differences are significant mostly for cancer. Another six conditions (bronchitis, other chest problems, diabetes, liver problems, epilepsy, and stroke) show no significant sex differences for any age group.

Two different types of explanations are discussed in the literature to account for the mortality and morbidity differences between men and women. One is biological and the second is social (Gove & Hughes, 1979; Krieger & Fee, 1994a; Rodin & Ickovics, 1990; Strickland, 1988; Verbrugge, 1983, 1985, 1989; Wingard, 1982). The most important social explanation concerns variation by gender in patterns of health services use, explanations linked to health reporting behavior and prior use of health care (mostly topics of the next chapter in this book). In this chapter, I focus on the contrast between biological explanations and social defined primarily as acquired risks. The biological explanation argues that women have more biological protections against early death than men. Genetics are one part of a biological explanation, focusing partially on the idea that redundant genetic material in the second X chromosome of females is protective. Another part of the biological explanation focuses upon hormonal differences between men and women, especially across the life cycle. The best known of these is hormonal protection from cardiovascular disease prior to menopause (Rodin & Ickovics, 1990). Data indicate that estrogen may serve to keep the levels of high-density lipoproteins elevated and those of low-density lipoproteins lower and thus decrease the risk for heart disease (Bush et al., 1987). Some contradictory evidence, however, is that estrogen from oral contraceptives appears to increase the risk of coronary heart disease in women who smoke (Mathews, 1989).

While the biological factors are important, the social factors should not be discounted. The leading causes of death in the United States today are linked to dysfunctional lifestyles and behavior. It is estimated that as much as 50% of mortality from the leading causes of death overall in the population can be traced to such aspects of lifestyle as cigarette smoking, excessive consumption of alcoholic beverages, use of illicit drugs, harmful dietary practices, reckless driving, nonadherence to medication regimens, and maladaptive responses to social pressures (Rodin & Ickovics, 1990). Moreover, some of these factors are interactive with each other and perhaps also with biological factors. For example,

women (especially African-American women) are more likely than men to live in poverty and may experience greater stress due to this difficult situation, which in turn may increase the rates of many health problems. This may be one reason for the finding in some studies of a declining sex mortality ratio for people over 45. Social roles for women are undergoing major changes in many countries, and two important lifestyle changes are women's increased substance use and much higher rates of labor-force participation (Rodin & Ickovics, 1990; Verbrugge, 1989). The impact of these types of social changes on aggregate health statistics will become much clearer in the next few decades.

## 4. SPECIAL LIFE CYCLE CONCERNS

As the previous section pointed out, many patterns of health status vary depending on age. Primary health concerns of women of reproductive age often differ from those of postmenopausal women. This section discusses first the special health concerns of younger women and then those of older women, especially postmenopausal women who are generally 50 years of age or older. The first section for each stage of the life cycle focuses on reproductive-related concerns that are mostly unique to women. The other sections examine major diseases or health conditions that occur at the specific stage of life.

### 4.1. Health Concerns of Younger Women

Some of the special health concerns of younger women are linked with sexuality and reproductive roles. These include sexually transmitted diseases, AIDS, and pelvic inflammatory disease. Other problems are related to mental health concerns such as eating disorders which often start from a psychological concern, but become one of the more serious mortality risks for young women. Finally, autoimmune diseases will be discussed.

**4.1.1. REPRODUCTIVE HEALTH.** One special focus for women compared to men, especially younger women, is the link between health status and reproductive functions. Certainly fertility control is not a concern only for women nor should it be a responsibility only for women, even though it is usually seen as such because women usually bear the major burden of the consequences of the lack of fertility control. An interesting trend in the United States is that the ratio of abortions to live births has been decreasing in the past decade, while the proportion of births resulting from unintended pregnancies has remained fairly stable (NCHS, 1996). Young women (under 20) have both higher abortion rates and higher proportions of unintended pregnancies. In 1992, the abortion rate for women 15 to 19 years of age was 52% higher than for women 25 to 34 years of age. During the late 1980s, 72% of all live births to women 15 to 19 resulted from unintended pregnancies, a figure 136% higher than among women in the 25 to 34 year age group. Thus, unintended pregnancies are an important concern for a segment of very young women. They are especially likely to lead to live births for poor women who have less access to abortion and may be members of a racial/ethnic or religious group (such as in some Latina populations) that discourages abortion as a solution to unintended pregnancy.

These statistics should not lead to the conclusion that fertility is increasing among U.S. women. Fertility rates have declined from those of the 1950s and 1960s. There were about 69 births per 1000 women aged 15 to 44 years in 1992 compared to 123 in 1957.

Overall fertility rates were stable during the 1980s. Between 1990 and 1993, the fertility rate in the United States declined by 5%. The rate of decline for African-American women was nearly twice that for white women. Even for teenagers 15 to 17 and 18 to 19 years of age, the ages that have received the most public attention and condemnation for childbearing, birth rates have declined on average about 1% per year since 1991 (although increases did occur from 1986 to 1991) (NCHS, 1996). Levels of childbearing are closely related to social and economic factors. During times of economic and social distress such as the Great Depression in the 1930s and World War II in the 1940s, one in five women remained childless (Taeuber, 1996). This dropped in the 1950s, but changing social roles for women that have increased their opportunities for careers and to engage in many activities outside of the home (perhaps along with higher divorce rates) are leading to more women remaining childless in the United States. Currently, based on what childless women in their 30s report as their expectations, as well as current first-childbearing patterns, some 15% to 20% of women will remain childless throughout their lifetimes. Many other women are delaying childbearing in the United States and other industrialized nations. In 1993, 44% of women 25 to 29 had not had one live birth, compared with only 20% in 1960 (NCHS, 1996). The interaction of class, gender, and ethnicity plays an important role in these types of statistics within the United States.

Issues of fertility rates and reproductive health, while important in the United States, are even more important elsewhere in the world, especially in developing countries, which traditionally have much higher fertility rates. Increasingly in the policy arena, shifts are underway to switch from discussions of fertility control to reproductive health (Lane, 1994), reflecting experts' frustration with the fragmentation of issues that touch on women's health into disparate programs, such as family planning, sexually transmitted diseases (STDs), maternal mortality, and child survival. The linkages between reproductive health and the topic of STDs and AIDS are quite close. A recent United Nations Conference, the decennial International Conference on Population and Development (ICPD), concluded that the UN needs to focus on six of the most pressing reproductive health concerns: gender inequalities, access to contraceptive services, sexually transmitted diseases (including HIV infection), maternal mortality, unsafe abortion, and adolescent pregnancy (Miller & Rosenfeld, 1996). Several recent articles review these topics in greater detail than possible in this chapter, but it is important to recognize the strong links between health status and reproductive health, especially for younger women (Lane, 1994; Miller & Rosenfeld, 1996).

**4.1.2. STDs, AIDS.** A range of serious health problems for women occur as the result of sexually transmitted diseases. The incidence of the traditional STDs of chlamydia, gonorrhea, and syphilis has been increasing, as has that of pelvic inflammatory disease (PID), although none of these is life threatening. AIDS is the opposite, a disease that at this point is incurable with high death rates. One complication in prevention and treatment of sexually transmitted diseases (STDs), as well as AIDS, is moral judgments about those who suffer from these diseases, and this has been true throughout the nineteenth and twentieth centuries (Brandt, 1985). Past campaigns against STDs, and even some current ones, often contain the notion that STDs are a problem only for women of "loose" morals, and that "good" women need protection from the taint of these diseases (Leonardo & Chrisler, 1992). As with AIDS today, stigmatization of the person with the disease often occurs, and reporting by physicians may be less than accurate, especially for private, upper-class patients.

The United States has been experiencing a resurgence of STDs, partially because of the growth of penicillin-resistant strains of the bacterium that causes gonorrhea as well as some increases in the rates of teenage sexual activity. Infection rates are higher among adolescent girls than boys, perhaps because of contact between adolescent girls and older men (Leonardo & Chrisler, 1992). Among African-American women, the incidence of gonorrhea is four to five times the national rate (Collins et al., 1994). Also, STDs are more easily transferred from males to females than the reverse, and infection in women is often asymptomatic and less likely to be identified and treated early. This places women at greater risk than men of long-term consequences for these problems. Untreated, STDs can impair reproductive capacity. Most seriously in this decade, a person with a history of STDs is at greater risk of contracting AIDS through skin irritated by infection (Collins et al., 1994). PID is an acute infection of a woman's upper reproductive tract. This infection can be transmitted sexually or may result from an overgrowth of normal bacteria. The risk of PID is highest for young women, and is sometimes first detected by the presence of an ectopic pregnancy (a pregnancy growing outside of the uterus) which is life threatening if not treated promptly (Althaus, 1991).

The most serious sexually transmitted disease today is AIDS (acquired immunodeficiency syndrome). While AIDS is a potential threat to all women, large racial and ethnic differences occur at present in the United States. In the 12 months ending June 1995, non-Hispanic African-American women had nearly 17 times the rate of AIDS as non-Hispanic white women. Rates were also higher for Hispanic women and American Indian women (NCHS, 1996).

Despite the general sense in the media that AIDS is a more heavily male problem (especially for gay males and those using injected drugs), the gender differential in the prevalence of AIDS is decreasing. In 1985, the incidence of AIDS was 13 times higher in men than in women, but by the second half of 1994, the number for men was just under five times that for women (NCHS, 1996). AIDS now represents the fourth leading cause of death for women ages 25 to 44. Younger women (ages 15 to 24) account for most (84%) of the cases, with three fourths of the cases occurring among Hispanic and African-American women (Update, 1995). The most common suspected modes of transmission of the disease for women are use of injected drugs and heterosexual contact with an infected partner. For women, heterosexual contact is the most rapidly increasing transmission category (Update, 1995).

As with other STDs, the stigmatization of those with AIDS is high, both in the United States and in developing countries in which AIDS is becoming a more serious problem. Many women experience shame and isolation, and this is even truer for those in the sex industry where rates of infection are quite high (Abercrombie, 1996). In Third World countries, rates of infection are very high in the sex industries and are a major health problem for this group of women in countries such as Thailand. In many countries in Africa, AIDS is as frequent in women as in men, and has had a major, population level impact so that many children are now being raised by grandparents because the parents have died from AIDS. In contrast in the United States, AIDS, while a major health problem, is still more concentrated in certain subgroups of the population. Women with AIDS in the United States often face the triple burden of racism, classism, and sexism as AIDS is so much more common among poorer and minority women. Many of the preventive techniques have not focused on women, and many experts argue that preventive interventions targeted toward women need to become a public health priority (Wingood & DiClemente, 1996).

**4.1.3. EATING DISORDERS.** The eating disorders of anorexia nervosa and bulimia nervosa are disproportionately problems of women, and especially of young women. Females are at a 10 times greater risk than males, and most at risk are young, white adolescents. A distorted body image may lead an adolescent to believe she is seriously overweight when she is not. These problems are complicated, and while their origins are behavioral and often linked to difficulties in adolescent adjustment, they are exacerbated by the extreme emphasis American society places on thinness in women. While the outward manifestations may seem to be only a more extreme version of the focus on weight control and dieting found among many American women, about 9% of anorexic individuals actually die from the problem, either from suicide or starvation (Horton, 1992).

Bulimia (binge eating followed by vomiting) is more common than anorexia. It often occurs in late adolescence and a national survey of students estimates that as many as 4% of eighth and tenth graders are bulimic (Horton, 1992). Physical complications that occur include constant sore throat and problems with the stomach and teeth. Even women athletes may be bulimic, believing that lowering body fat will increase their athletic performance, especially in sports such as figure skating and gymnastics with more subjective judging, in which a slim appearance is an asset (Jacobs, 1994). Fortunately, bulimia has a better recovery rate than does anorexia. Both these health problems arise from a confluence of concern over gender roles and social pressures of adolescence and the desire to be popular (and thin), but can cause long-lasting and serious health consequences.

**4.1.4. AUTOIMMUNE DISEASES.** Autoimmune diseases are much more common among women than men. These health problems are conditions in which the body makes antibodies against some of its own parts. Systemic lupus erythematosus (SLE) and rheumatoid arthritis (RA) are two of the better known examples of these kinds of diseases. Women are nine times more likely to develop lupus, and three times more likely to develop RA (Horton, 1992). SLE is mostly a disease of younger women, developing often in the 20s although sometimes as late as the sixth decade of life. In SLE, parts of the body become inflamed, including skin, joints, kidneys, and nervous system. In contrast, RA generally develops at a later age, between 35 and 45, and affects joints, especially those of the hand (Collins et al., 1994).

One serious complication of SLE occurs if a woman is pregnant. The condition can be transferred to the fetus, and miscarriage is more common. Often symptoms are exacerbated in late pregnancy or after delivery. Treatment of the pregnant woman is also more difficult, and this problem is a major source of disability among young women. While the multiple roles of a young woman may exacerbate the disease (such as being pregnant and trying to work and raise a family), its origins are probably genetic, perhaps exacerbated by hormonal factors, which may account for the increased severity following pregnancy.

## 4.2. Health Concerns of Older Women

Some of the health concerns of older woman are linked with biological differences between men and women and reproductive concerns. This is certainly true for menopause, a biological event with different levels of significance depending upon sociocultural factors. The other portions of this section focus upon specific diseases (which menopause is not), many of which are chronic conditions associated with aging and how it differentially impacts women. The diseases and conditions reviewed are: heart disease and car-

diovascular disease (CVD), cancer of various types, diabetes, osteoporosis, and Alzheimer's disease.

**4.2.1. MENOPAUSE.** Menopause is one of the more controversial subjects in the area of gender and health today. Until this century in the United States, and later in countries with worse health status statistics, menopause was not a major concern because most women did not spend much of their life postmenopausal. Not until after 1900 did U.S. women's life expectancy exceed 50 (Clarke, 1990). To the extent that physicians paid most attention to menopause before 1950, it was viewed as a physiological crisis but received little specific attention. Negative images of women as they aged existed in the general culture as well as among health care professionals.

From 1960 forward, the availability of estrogen replacement therapy (ERT), also called hormone replacement therapy (HRT), has led to fierce debate over its necessity (Col et al., 1997; McCrae, 1983). Some feminist researchers employed a medicalization framework to argue that, especially within the United States, menopause has been socially constructed by the medical care community as a deficiency disease that can be "cured" by medication (McCrae, 1983; McCrae, & Markle, 1984). Medical researchers have argued that HRT may increase life expectancy for nearly all postmenopausal women and improve the comfort of the transition to menopause for many women (Col et al., 1997).

During the last 10 years, the debate within the medical literature has continued. For example, a recent meta-analysis of 31 observational studies found a 50% reduction in coronary heart disease risk among current users of estrogen replacement therapy (Stampfer & Colditz, 1991), while other studies have reported less clear benefits. Similarly, controversy abounds over the protective effects of estrogen against osteoporosis and the role of ERT in increasing the risk of breast cancer, especially for women who already possess several other risk factors (Harlow & Ephross, 1995). A 20-year review of the effect of estrogen therapy on health status concludes that it decreases risk for coronary artery disease and hip fracture, but that long-term therapy increases the risk for endometrial cancer and might be associated with a small increase in the risk for breast cancer (Grady et al., 1992). A recent article presented a series of decision trees that women and their physicians could employ to help make the decision about ERT (Col et al., 1997). This article, using a modeling approach that includes incidence rates for diseases such as breast cancer, endometrial cancer, heart disease, and hip fracture; as well as assumptions about risk factors such as smoking, relatives with diseases, and blood pressure and cholesterol, argues that hormone replacement therapy should increase the life expectancy of most postmenopausal women, except those at the greatest risk for breast cancer (Col et al., 1977). Clear answers await the completion of ongoing clinical trials, and part of the recent debate about the need to include women in more medical studies and to conduct studies focusing on special health problems of women have arisen because of the debate over ERT.

**4.2.2. HEART DISEASE AND CARDIOVASCULAR DISEASE.** This section discusses both coronary heart disease (angina or intermittent heart pains, and heart failure), which accounts for more than 30% of female deaths, and cerebrovascular disease or CVD (stroke, multiinfarct dementia), which accounts for about 9% of deaths among women. Heart disease in women is largely a postmenopausal phenomenon, with women typically developing symptoms 10 or more years later than men do. Illness and death rates from heart

disease rise rapidly in women after the age of 55 (Lerner & Kannel, 1986). Risk factors are similar for men and women, but the first sign of coronary heart disease for men is generally a heart attack, whereas for women it is often angina. Women are also more likely to die from heart attacks when they do occur (Hendel, 1990). One important issue in the literature concerns the fact that women do not appear to respond as well to many of the current therapies (Clyne, 1990). Since most of these therapies were initially tested on men alone, this finding may be less than surprising. Moreover, there is increasing evidence that women undergo intensive or invasive evaluations and treatments for heart disease less frequently than do men with symptoms of similar or lesser severity (Wenger, Speroff, & Packard, 1993).

Mortality for women from CVD is lower than for men; however important racial differences exist. The rate of CVD for African-American women is 80% higher than the rate for white women (NCHS, 1996). In addition to being a major cause of death, CVD is a major cause of physical and mental disability for women. CVD is very much a disease of the old, with almost 90% of the deaths and three quarters of the hospitalizations occurring for those 65 and over.

Growing numbers of studies indicate that psychosocial stress and psychosocial factors are important in coronary heart disease for women. Low social class, low educational attainment, the double loads of work and family that women often carry, and lack of social support all emerge as risk factors for women in recent reviews (Brezinka & Kittel, 1995; Elliott, 1995). Psychosocial adjustment in women after a heart attack appears to be worse than in men, and return to work rates are also lower. Overall rehabilitation outcomes are not as good for women, making heart disease quite important in lowering the health status of older women.

**4.2.3. CANCER.** Cancer is a name for cells that divide inappropriately, and can occur in many different parts of the body. The risk factors for the disease and the complications vary by site. Breast cancer and lung cancer are the most commonly occurring cancers in women, together responsible for almost half of all cancer deaths in women. Another major category of cancers for women are the gynecological ones (cancer of the cervix, uterus, and ovaries). Breast cancer is the most common cancer in women, accounting for 32% of all newly diagnosed cases (Kelsey & Bernstein, 1996). Cancer was the leading cause of death for women 45 to 64 years of age in 1993 (NCHS, 1996).

Lung cancer has been growing in importance as a cause of death for women. Although twice as many men still die of lung cancer as do women, the death rate for men is stabilizing, while the death rate for women continues to climb (American Cancer Society, 1992). Between the early 1970s and the early 1990s, the age-adjusted incidence rate for lung cancer for women more than doubled and the age-adjusted death rate rose 182%. These increases substantially exceeded those for men in the same time period (NCHS, 1996). Beginning in 1987, more women died from lung cancer than from breast cancer. Proportionate to their numbers in the population, African-American women are more likely to have lung cancer. However, because they are even more likely to have breast cancer, lung cancer is now the leading cause of cancer death among white women but second among African-American women.

The major explanation for the trend of increasing lung cancer deaths among women and the time period in which it is now beginning to show up is the length of time it takes for lung cancers to develop and the time period during which women began smoking in large numbers. Cigarette smoking is the major risk factor for lung cancer, accounting for

about 85% of all cases (CDC, 1990). Between 1965 and 1990, cigarette smoking decreased more among men. In 1965, the age-adjusted prevalence of cigarette smoking for people 18 years of age and over was 52% for men and 34% for women. By 1990, the comparable figures were 28% for men and 23% for women (NCHS, 1996). Smoking is now one of the major preventable health risks of women (Kendrick & Merritt, 1996).

Breast cancer rates have been increasing in recent decades, leading to growing fears and concern about the disease. It has long been one of the more feared cancers among women because of the disfigurement entailed by treatment and the association of breasts with sexuality, especially in American culture. In publicity about the disease, the American Cancer Society has used figures of aggregate risk, and these statements of risk have increased from 1 in 12 in the 1980s to 1 in 9 women currently who can expect to be diagnosed with cancer during their lifetimes (American Cancer Society, 1992). Close to 50,000 U.S. women now die of breast cancer each year.

Risk factors include having relatives with the disease, increasing age, never having been married, high socioeconomic status, and, for breast cancer diagnosed after age 45, being white (Kelsey & Bernstein, 1996; Wooster, Neuhausen, Mangion, et al., 1994). The pattern of breast cancer incidence and mortality differs by race. Between 1973 and 1991, the number of new cases (incidence) was between 15% and 25% higher for white women than for African-American women. Beginning in the 1970s, the age-adjusted death rate from breast cancer for African-American women began to exceed that for white women and the gap is continuing to widen. Breast cancer mortality was 28% higher for African-American women in 1993 than it was for white women (NCHS, 1996). The major explanation for this is that earlier detection at a more curable stage is more common for white women, who have better access to healthcare. In addition, there is some evidence that African-American women develop the disease at an earlier age, and many experts believe that the disease in younger women is of a different nature and more difficult to treat successfully (Kelsey & Bernstein, 1996).

One important controversy is about the use of mammography as an early detection method for breast cancer. A related debate is about the usefulness of preventive techniques, such as dietary change and medication. Evidence from randomized trials indicates that screening for breast cancer by mammography reduces mortality in women over 50. What is much less clear is its usefulness for women under 50. Because of this, the National Cancer Institute (NCI) has not recommended screening for women 40 to 49, although other organizations, such as the American College of Radiology and the American Cancer Society, have (Kelsey & Bernstein, 1996). Because of the growing public concern over conflicting recommendations, the NCI changed its recommendations in 1997, primarily in response to political concerns rather than new scientific evidence.

Two large randomized trials are now underway concerning breast cancer, partially as a response to the criticism by feminists and the resurgent women's health movement that research into diseases that predominantly affect women have been underfunded. The Women's Health Initiative is designed to test strategies to reduce the risk for cardiovascular disease, breast cancer, colorectal cancer, and osteoporotic fractures. It is very large, including 63,000 women in one of its studies, mainly because of the large sample needed to test the hypothesis that dietary modifications can reduce the incidence of breast cancer. The trial of this hypothesis has received criticism, since the evidence is fairly weak that a diet high in fat increases the risk for breast cancer (Institute of Medicine, 1993; Kelsey & Bernstein, 1996). The Breast Cancer Prevention Trial tests whether tamoxifen, a synthetic, nonsteroidal antiestrogen to breast tissue, is effective in the prevention of breast

cancer. One controversy surrounding this trial is whether large numbers of healthy women should be treated with a potentially toxic drug to prevent a relatively rare event (Kelsey & Bernstein, 1996). Results from these two trials will not be available for some while, leaving women with difficult decisions to reach about whether to undertake lifestyle changes that might have a minor effect on breast cancer risk as well as at what age to undergo regular mammography.

Of the gynecological cancers, cervical cancer is one of the most detectable and treatable, with 5-year survival rates as high as 90% to 100% if the cancer is detected early (American Cancer Society, 1992). Because of the advent of the Pap smear test to detect cervical cancer, mortality rates have steadily declined in the past 40 years. The number of new cases of cervical cancer is still higher for African-American women by one third, and the mortality rate is three times as high, owing primarily to problems of obtaining adequate healthcare, including regular Pap smears. In contrast, ovarian cancer is more common among white women. Ovarian cancer is much harder to detect, and therefore is diagnosed at a later stage. Survival rates for this disease are the lowest among the gynecologic cancers, with fewer than 40% surviving 5 years after diagnosis (American Cancer Society, 1992). Risk factors are poorly understood, although some evidence suggests that oral contraceptives that suppress ovulation may help protect against ovarian cancer (Hankinson, Vital-Herne, & Goldstein, 1992). Rates for endometrial cancer (cancer of the uterus) have remained stable over the past decade. This disease generally occurs in women over 50, with a relatively positive prognosis of 85% survival 5 years after diagnosis (American Cancer Society, 1992). Besides age, a history of infertility, failure to ovulate, obesity, and use of estrogen therapy are the best known risk factors for endometrial cancer.

**4.2.4. DIABETES.** Diabetes is a serious disease that often leads to disability and can even lead to death if not treated or if poorly managed. It is a major cause of death for women, ranking seventh recently for white women and fourth for African-American women (McBarnette, 1996). The rates are also higher for Mexican-American and American Indian women than for white women. Sixty percent of new cases of diabetes are diagnosed in women (Tinker, 1994).

Although some forms of diabetes begin at a younger age, especially gestational diabetes linked with pregnancy, diabetes disproportionately affects older age groups, and death is four times more likely for women 65 to 74 than for women 45 to 64 (NCHS, 1991). It is associated with increased risk for many other chronic health problems and complicates the management of many diseases. Diabetes can contribute to kidney disease, eye disease leading eventually to blindness, peripheral vascular disease that can lead to amputation of limbs, and increased risk of death from coronary heart disease and stroke (Lerner & Kannel, 1986). Diabetes contributes to the mortality of more than 80,000 women in the United States, either directly (as an underlying cause of death) or indirectly (contributing to another cause of death), a number nearly twice as high as the number of women who die from breast cancer even though that disease has received more public and media attention recently (Tinker, 1994).

A complication for women in successful management of this problem is that lifestyle changes are generally required, especially dietary changes. In some cultural groups, women may place their own health behind, keeping the family content by continuing to cook ethnically accepted foods even if they are not those recommended for control of diabetes (Anderson, Blue, & Lau, 1991). Thus gender roles may interact with successful control of diabetes, leading to the high rates of deaths from the disease and its complications.

**4.2.5. OSTEOPOROSIS.** Osteoporosis has already been discussed briefly as part of the debate about whether women should take ERT after menopause. One of the clearest findings of the studies of ERT and menopause is that ERT does help hinder the development of osteoporosis, but to do this it must be taken for a long period of time, with recent evidence that maximum protection does not occur until after 10 years of therapy (Col et al., 1997; Kiel, Felson, Anderson, Wilson, & Moskowitz, 1987). Osteoporosis is a condition in which the bone density is reduced. If serious enough, fractures can result from minor accidents or even normal physical activity in the most severe cases. Osteoporosis is more common in women than in men because women are smaller, on average, and have less bone mass to begin with. In addition, the loss of bone is accelerated in women by menopause and the decline in estrogen levels linked to that event (Collins et al., 1994). Some decline in bone mass occurs in much of the population. Current estimates are that more than 50% of women over age 45 and 90% of women over 70 have some osteoporosis, making it one of the most common health problems of women as they age.

Fractures of the hip, wrist, and vertebrae are among the most common clinical manifestations of osteoporosis, but hip fractures are more important for overall health status because of their linkage to severe impairment and death (Col et al., 1997; Horton, 1992). In one study, 25% of hip fractures required institutionalization and 20% resulted in death (Resnick & Greenspan, 1989). From 75% to 80% of hip fractures occur to women. Less severe in their overall consequences are vertebral fractures, which often lead to spinal deformity, chronic back pain, and the loss of height often noted in elderly women.

Risk factors for osteoporosis include being white, being thin, a history of smoking, past family history of the disease, and having experienced amenorrhea. More recent studies support the role of continued physical activity in limiting the impact of osteoporosis (Lappe, 1993; Marcus et al., 1992). Some sociocultural factors may exacerbate osteoporosis in women, making the gender differences appear larger than they are due to genetics alone. Women are more likely to diet to keep weight down to low levels throughout their lives and to limit intake of foods rich in calcium as a means of weight control. For the current generation of elderly women, exercise was often viewed as unimportant. One debate about osteoporosis is whether future generations of women will be at as high a risk as their grandmothers, given their greater involvement in sports and exercise both at a younger age and throughout their lifetimes, and whether the heightened risk of breast cancer and other health problems outweighs the protective effects of ERT for women. Another challenge to the medical approach to osteoporosis is raised by some feminists who question whether lifelong drug regimens for healthy women are appropriate (Ray, 1996).

**4.2.6. ALZHEIMER'S DISEASE.** A health problem of aging women that is less open to debate in terms of medicalization and the need for a feminist and critical examination is Alzheimer's disease (AD). This is an illness characterized by a gradual loss of memory and cognitive abilities. By the most advanced stages of the disease, people do not even recognize their own relatives and are unable to live safely by themselves without constant attention. AD has become one of the common reasons why people, especially women, are sent to nursing homes and long-term care facilities.

AD increases rapidly in both men and women after the age of 70, but since women live longer than men, many more women develop it. Some studies argue that women have a higher incidence, even taking into account the higher proportion of females among the aged (Schoenberg, Anderson, & Haerer, 1985; Schoenberg, Kokman, & Okazaki, 1987),

although whether women are at greater risk is not yet resolved. Why people develop AD is also not yet clearly known, and therefore attempts at preventive measures to control risk factors are not available. History of head trauma, association with heart attacks and stroke, and family history are among the risk factors currently discussed by researchers (Advisory Panel on Alzheimer's Disease, 1991; Aronson, Ooi, & Morganstern, 1990).

## 5. MENTAL HEALTH STATUS

The research on mental health and gender encompasses a huge literature that is quite difficult to review in a brief space. This section therefore focuses on only a few issues linked to gender and mental health, specifically, variation in rates of mental illness and a more detailed examination of depression, one of the most important categories of mental illness, especially for women.

**5.1. RATES OF MENTAL ILLNESS.** Important gender differences have been noted in the rates of specific mental disorders. Disorders that are predominant in women include clinical depression, seasonal affective disorder, the depressed phase of bipolar disorder, eating disorders (as already discussed previously under life cycle concerns of younger women), panic disorder, phobias, disassociative disorders, borderline personality disorders, and suicide attempts. Males predominate in completed suicide, substance abuse, intermittent explosive disorder, antisocial personalities, early-onset schizophrenia, autism, learning disabilities, and conduct disabilities. A few major categories of mental illness have similar rates in both men and women including obsessive-compulsive disorder, schizophrenia, and bipolar disorder (Blumenthal, 1996; Robins, Locke, & Regier, 1992).

Depression is the most important of the mental illnesses, especially for women. About 7% of women in the United States suffer from major depression during their lifetimes, in contrast to 2.6% of men (Weissman & Klerman, 1992). Depression is discussed in more detail in the next section.

Lifetime prevalence of psychiatric disorders is actually fairly similar for men and women; it is the types of mental health problem that vary between them (NCHS, 1996). Looking at people aged 15 to 54 years of age, 47% of women and 49% of men had experienced a symptom of a psychiatric disorder at some point during their lives. Women who report a symptom, however, are more likely to have received some form of mental health services for it (55% vs. 42%), reflecting the well-established greater propensity of women than men to seek help for problems, especially mental health problems (Gove, 1984; NCHS, 1996).

Many mental disorders are linked with specific stages of life. Eating disorders, for example, have been discussed under problems of young women both because they are the mental health disorder most likely to lead to death and because that mental health problem is so strongly associated with one stage of life. Other problems that are strongly linked with life stage, at least in their onset, are alcoholism and substance abuse. While alcoholism has traditionally been viewed as a problem of men, the rates are increasing among women, although across the lifetime this problem affects about 24% of the male population versus only 5% of women. Drug abuse is also linked with youth and with men, although recent data indicate problems at some point in their lifetime for 41% of men versus 32% of women, a much smaller gender difference than is the case for alcoholism

(Blumenthal, 1996). Alzheimer's is a disease of the old, and one form of schizophrenia typically starts in the early 20s.

Many researchers have pointed out that the gender differences in mental illness seem to parallel differences in gender roles, especially in American society (Gove, 1984; Radloff, 1975). Men display higher rates of disorders linked to violence, such as paranoid schizophrenia and antisocial personality disorders. Some researchers have hypothesized that these disorders may occur when men become oversocialized to their gender role, and see antisocial behavior as a way to display their position in society. This is one reason why men are more successful at accomplishing suicide, even though men and women attempt it at fairly similar rates. One recent medical sociology text notes that the symptoms of antisocial personality disorder parallel expectations within lower class communities for male behavior (Weitz, 1996). Similar role based explanations exist for the gender-based differences in depression and are discussed next.

## 5.2. Depression and Gender

Some researchers have hypothesized that depression can result from oversocialization to a female role (Gove, 1984; Radloff, 1975). One explanation is learned helplessness theory, which argues that depression develops when individuals learn that they cannot control their lives (Seligman, 1975). Women are socialized differently from men, and perhaps especially so beginning with adolescence and differential social reinforcement at that stage from parents, friends, and other adults. As women mature, they are more likely to believe that their failures and problems in life come from personal deficiencies, resulting in feelings of depression. Moreover, women experience more situations in which they are unable to control their own fates, especially in the past when women were limited in the careers to which they aspired, and this lack of ability to control one's own destiny is also linked to the development of depression.

Gove (1984) argued that adult roles of men are often more structured or fixed than those of women, and that more structured roles lead to better mental health. Also, he argues that women are more often placed in nurturant roles, especially within family systems, and this imposes a strain on them and leads to poorer mental health.

Evidence is also growing that suggests an interaction between biological and psychosocial factors (Blumenthal, 1996). Some gender differences have been observed in brain structure and function and in the physiological reaction to stress. Because sex differences in depression occur after puberty, this may lend credence to an explanation that includes biological as well as social influences. Certain specialized depressions of women (e.g., postpartum depression) are linked to hormonal changes connected with pregnancy. These biological factors do not work alone, but are combined with the greater role stress and nurturing properties expected by women in many different settings.

Women in every racial, ethnic, and socioeconomic group have a higher rate of depression than men in the same group. Despite this, overall rates of depression are lower for African-American and Hispanic women than for white women. Depression is most common among women from 25 to 44, but increasing rates are being reported among young women and the elderly. Rates of depression in elderly women have recently been estimated to be as high as 20% of the population over 60 (Collins et al., 1994; Horton, 1992; Kizialy, 1992). Marital separation or divorce is another major risk factor for depression among women (Anthony & Petronis, 1991).

A last piece of evidence that lends credence to an explanation that intertwines biological and social factors is information on sex differences in rates of depression cross-nationally. One study carefully employed similar sampling and diagnostic criteria to collect information about rates of mental illness in the United States, Canada, Germany, and New Zealand (Weissman, Bland, Joyce, Newman, Wells, & Wittchen, 1993). Rates of major depression were higher in females than in males, whereas rates for bipolar disorders were similar by gender, for all four countries. The mean age at onset by gender also did not vary across the nations. One interesting trend noted is that rates of major depression for males seem to be rising, while rates for females are stabilizing for birth cohorts after 1945. Further research will need to follow trends over time to see if these can help to untangle the complex interaction between social and biological causes.

## 6. CONCLUDING COMMENTS

What can be concluded about gender and health status from the various topics and articles reviewed in this chapter? Perhaps the most important point, discussed both at the end of the section on life expectancy and mortality and also at the end of the section on mental health, is the complex interplay between gender, biology, and other social factors. One growing area of interest within medical sociology includes an examination of not only gender and its linkages to health status, but also other factors such as ethnicity (Anderson et al., 1991; marital status (Preston, 1995), employment status (Stronks, Van de Mheen, Van den Bos, & MacKenback, 1995), and social class (Koskinen & Martelin, 1994; Krieger & Fee, 1994a; Payne, 1991).

One area of growing research interest that underscores the complex interactions between gender and health in many European countries, as well as in the United States arises from the finding that socioeconomic mortality differentials are more pronounced among men than women (Koskinen & Martelin, 1994). Traditional health studies of socioeconomic mortality differentials have generally focused on men and measured socioeconomic status (SES) in terms of the male head of the household (Haan, Kaplan, & Camacho, 1987; Lahelma & Valkonen, 1990; Navarro, 1990). One recent European study concluded that, after paying attention to how SES is measured, the major explanation for the lower impact of SES on women's mortality combines gender differences in the relative share of causes of death and the influence of marital status (Koskinen & Martelin, 1994). This one study of the complexity of linkages between gender and health, and the need to consider such other social variables as SES and marital status, illustrates a promising direction for future research on gender and health.

In a recent article critiquing the use of sex and race in studies of health in the United States, Krieger and Fee (1994a) pointed out that we need to recognize that many variables we often think about as biological are actually social (e.g., they argue that race is a spurious biological concept) or a mixture of social and biological. Krieger and Fee (1994a, 1994b) argued that to know a person's sex is to know very little about his or her health status or social status. Women, as they note, are a very mixed lot, with gender roles and options shaped by history, culture, and deep divisions across class and color lines. While recognizing, as do all health studies, the importance and biological nature of reproductive differences, their article reminds us of the need to realize that gender as a social reality often transforms and interacts with biology.

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