# Older Women's Health: Contemporary and Emerging Health lssues 

Introductory Remarks

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Dr. Williams is the Director of the National Institute on Aging, National Institutes of Health, Bethesda, MD. The introduction is based on his presentation at the National Conference on Women's Health, held in Bethesda, MD, June 17-18, 1986. Dr. Williams served as the Moderator for the plenary panel session on "Older Women's Health: Contemporary and Emerging Health Issues."

## Synopsis

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This important topic, aging, is really a woman's issue as things now stand. Someday, it is to be hoped, it will be more a man's issue as well, but that is one of the research challenges.

Few features of the human aging process have such enormous personal, economic, social, and cultural consequences as the sex differential in lengevity. Life expectancy at birth for women has increased far more rapidly than for men.

By the time a person reaches the age of 85, there are approximately five women for every two men. Many other statistics support and illustrate dramatically the importance of gender differences in aging and the challenge of trying to understand why they exist: It is important also to understand the differences in disability.

In a recent issue of the Journal of the American Geriatrics Society William Hazzard looked at the biological basis for the sexual differential in longevity His review is extremely thorough and thoughtprovoking. Dr. Hazzard recently left the geriatric unit at Johns Hopkins School of Medicine to become Chairman of Medicine at Bowman Gray School of Medicine in Winston-Salem, NC.

The discussions that follow will examine many aspects of this important subject.

# Older Women's Health: Contemporary and Emerging Health lssues 

# Health Among Older Women In the United States 

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#### Abstract

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## Synops/s

In the United States, women live longer than men, and they have lower death rates at virtually every age and for most causes of death. The sex differential in mortality has been increasing since the early 1900s, especially for those 15-24 and 55-64 years of age. Since 1970, however, that trend has slowed for persons

45-74, and for the first time, the sex differential among those 55-64 was actually smaller in 1980 than in 1970. While women have lower age-specific death rates than men for most causes of death, among adults 65 years old and older, the leading causes of death are the same for men and women: heart disease, cancer, and stroke.

Despite their continuing mortality advantage, women generally experience more illness than men. They report more self-perceived poor health up to age 60. It has been frequently suggested that women may be more willing to acknowledge and report illness than men. Sex differences in illness among the elderly persist, however, when physical examinations are used for assessment of population-based samples. Injuries, one of the few conditions more common among men, are more common among women after age 55. Among the elderly, women appear to have more conditions that are disabling, such as arthritis, while men have more life-threatening conditions, such as heart disease. Women also use more health services than men, and they are institutionalized more frequently in their later years.

Future health service planning must take into consideration women's greater health service needs. Future research needs to determine why women have more illness than men and whether women's greater
life expectancy is associated with a greater active life expectancy, or if they are merely experiencing more years of disability and dependency.

To Understand the health of older women in the United States, it is necessary to describe their health compared to both younger individuals and men. In addition, health must be described in terms of morbidity and mortality. Among the oldest old, mortality becomes a less critical issue, and quality of life-and therefore morbidity-becomes more important. Causes of mortality will reflect causes of morbidity that affect people in their later years.

To begin with, it is well-known that women live longer then men. In the United States, men have a higher mortality rate than women at every age. This is true even in infancy. If we compare the male death rate with the female death rate as a sex ratio, the difference between men and women is especially pronounced in two age groups: those $15-24$ yrs old and those 55-64. The earlier peak is believed to be primarily due to the sex differential in death rates for accidents, while the peak for the older group is predominantly influenced by sex differences in heart disease.

The age-adjusted death rate in the United States has been decreasing throughout the century for both sexes, with one exception-the influenza pandemic that occurred around 1917. The difference in the rates between men and women, however, has been increasing. At the beginning of the century, the difference between men and women was very modest. 1.0-1.2; but it has been increasing steadily throughout the century. It is now around 1.8 (an 80 percent higher death rate in men). However, in the last few years (1977-80) the sex ratio has stabilized. This is the first time in this century that the difference between men and women has not increased, but remained the same.

Noting this shift, some individuals are questioning whether changes in women's lifestyles are beginning to be reflected in increasing death rates for women, and a decreasing sex differential. Even so, the death rates for both men and women are still decreasing. The stabilization of the sex ratio means that women's death rates are decreasing at a less rapid pace than men's or that men's death rates are decreasing at a faster pace than women's. For example, men may be giving up poor health habits, such as cigarette smoking and alcohol consumption,
at a faster rate than women, so their life expectancy is increasing at a relatively faster pace. In either case, life expectancy is improving for both men and women.

Figure 1 presents changes in the sex ratio over time by age group. Throughout the century, the difference between men and women has been increasing, and this difference is especially dramatic for the younger age group of 15-24. This is also true for the older age group, 55-64 but, for the first time in this century, the sex ratio in that older group has dropped. Between 1970 and 1980, the difference between men and women actually declined, probably due to changes in heart disease mortality. Death rates for heart disease are decreasing for both men and women, but they have been decreasing more rapidly for men, so the difference between men and women has actually declined for the first time.

Another way of looking at the sex ratio and health is to look at life expectancy. Life expectation at birth has been increasing for both sexes, and the difference between men and women has been becoming greater throughout the century. Looking specifically at individuals over 65 (table 1), it is apparent that life expectancy at age 65 has been increasing for both men and women. The difference between men and women has also been increasing.

Table 2 presents life expectancy by age for those over 65. The difference between male and female life expectancy also goes down with age, but throughout the life span, female life expectancy is longer.

The previous discussion concerns absolute life expectancy and death rates for all causes. Looking at cause-specific mortality for the 10 leading causes of death in the United States, the sex ratio is consistently equal or greater than 1 . The death rate for these causes for males is higher than the death rate for females. Diabetes, the seventh leading cause of death, is the only cause with no sex differential; it was 1.0 in 1980. Men and women had the same ageadjusted death rate from diabetes. The foregoing rates are all age-adjusted, so differences are not affected by the fact that women live longer than men.

Until recently, diabetes was the single cause of death in the top 10 for which women actually had a greater death rate than men. Only in the last few

Table 1. Expectation of life at age 65, United States, whites. 1900-80

| Year | Female | Male | F-M difference |
| :---: | :---: | :---: | :---: |
| 1900-02............................... | 12.2 | 11.5 | 0.7 |
| 1919-21............................... | 12.8 | 12.2 | 0.6 |
| 1939-41................................ | 13.6 | 12.1 | 1.5 |
| 1959-61.............................. | 15.9 | 13.0 | 2.9 |
| 1969-71.............................. | 16.9 | 13.0 | 3.9 |
| 1980..................................... | 18.5 | 14.2 | 4.3 |

SOURCE: Adapted from National Center for Health Statistics: Vital Statistics of the United States, 1980. Vol 2, Sec. 6. Life tables. DHHS Publication No (PHS) 84-1104, U.S. Government Printing Office, Washington, DC, 1984.

Table 2. Expectation of life, United States, 1980


SOURCE: Adapted from National Center for Health Statistics. Vital statistics of the United States, 1980. Vol. 2 Sec. 6. Life tables. DHHS Publication No. (PHS) 84-1104, U.S. Government Printing Office, Washington, DC, 1984.

Table 3. Leading causes of death for older women, United States, 1980

|  | Percent of all deaths |  |  |
| :---: | :---: | :---: | :---: |
| Cause of death | $\begin{aligned} & 65-74 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & \text { 75-84 } \\ & \text { years } \end{aligned}$ | 85 years and older |
| Heart disease ....................... | 39 | 46 | 50 |
| Cancer .................................. | 28 | 17 | 8 |
| Cerebrovascular disease....... | 9 | 14 | 16 |
| Chronic obstructive pulmonary disease $\qquad$ | 3 | 2 | 1 |
| Diabetes mellitus ................... | 3 | 2 | 2 |
| Accidents............................. | 2 | 2 | 2 |
| Pneumonia, influenza ............ | 2 | 3 | 5 |
| All other ................................ | 14 | 15 | 17 |
| Total.......................... | 100 | 100 | 100 |

SOURCE: Adapted from Verbrugge, L. M.: A health profile of older women with comparisons to older men. Research on Aging 6:291-322 (1984).

Figure 1. Sex mortality ratio (M to F) by age, United States, 1900-80


SOURCE: Wingard, D.L.: The sex differential in morbidity, mortality and IIfestyle. Ann Rev Public Health 5: 433-458 (1984).
years have the male and female death rates from diabetes been equal. This equalization is also reflected in morbidity rates. Diabetes is now becoming a disease that is more common in men; traditionally it has been more common in women. It has been proposed that this change reflects changing lifestyles in terms of obesity and body size.

Causes of death with high sex ratios range from homicide (with a fourfold sex ratio) to lung cancer, suicide, chronic obstructive pulmonary disease, accidents, cirrhosis of the liver, and heart disease (with a twofold sex ratio). It is important to note that all seven of these causes of death are highly influenced by behavior. Because of this, most discussions of causes for the sex ratio have focused on the behavioral differences between men and women. It is also important to recognize biological contributions to sex differences in health. Most likely, behavioral differences and biological differences between men and women interact in their influence on sex differences in health.

It is also important to recognize that the leading causes of death in men and women are the same, even though women live longer than men and have lower age-specific death rates from most causes of death. The leading causes of death in men and women are virtually the same: heart disease, cancer, stroke, and accidents. This is also true if you look just at men and women over 65.

Figure 2. Percent ${ }^{1}$ of persons assessed in fair or poor health by sex and age: United States, 1978

${ }^{1}$ Excludes persons with health status not assessed.
SOURCE: National Center for Health Statistics, P.W. Ries: Americans assess their health, United States, 1978. Vital Health Stat [10], No.142. DHHS Publication No (PHS) 83-1570. U.S. Government Printing Office, Washington, DC, 1983.

Focusing on women over 65, table 3 presents the distribution of the leading causes of death by three age groups (65-74, 75-84, and 85 and older). Heart disease is clearly the leading cause of death in older women of all ages. It ranges from 40 percent of all deaths in those 65 to 74 , to 50 percent of all deaths among those over 85 . Even so, although a woman's risk of heart disease is much lower than a man's, heart disease is still a major health concern for women. It is also evident that, as women age, the predominant causes of death change. Heart disease and stroke account for a greater proportion of all deaths, and cancer becomes less significant at the older ages.

It is universally accepted that, in the United States, women live longer than men. More controversial is the fact that women report more illness than men. Even though women live longer than men, they tend to report more illness in population-based surveys and, upon examination, they tend to have more illnesses than men. But the causes of morbidity may be different than the causes seen in mortality statistics.

Figure 2 presents sex differences in perceived health. These data are based on the question posed in the National Health Interview Survey "How is your health compared to other people your age?" The figure shows the percentage of men and women reporting poor or fair health at ages from 2 to 82.

Table 4. Chronic conditions based on examinations of older adults, United States

|  |  |
| :--- | :--- |
|  | More common among: |
| Oidor women | Oldor men |
|  |  |
| Benign cancer Mallgnant cancer <br> Hypertension Diabetes <br> High cholesteral Diabetes <br> Arthritis  <br> Obesity  <br> Poor hearing  |  |

SOURCE: Adapted from Verbrugge, L. M.: A health profile of older women with comparisons to older men. Reeearch on Aging 6:291-322 (1984).

Table 5. Disability among adults $\mathbf{6 5}$ or older United States, 1980

| Disability | Female | Male |
| :--- | :---: | :---: |
|  |  |  |
| Restricted activity days**..................... | 42.3 | 34.8 |
| Bed disability days* ......................................................... | 5.5 | 11.7 |
| Work-loss days*....... | 2.9 |  |
| Major activity limitation (percent) ........ | 35 | 44 |

- Per person per year.

SOURCE: Adapted from Wilder, C. S.: Disability days: United States, 1980. Vital Health Stat [10] No. 143. DHHS Publication No. (PHS) 83-1571. U.S. Government Printing Ófice, Washington, DC, July 1983.

Women, until age 57, report more poor or fair health than men do. In general, women report more ill health than men, but older women report better selfperceived health status than men. There is a methodological concern here, however. Women may be more prone to discuss health because they have traditionally been caretakers of the family's health. Women may be more ready to talk about health, their own or someone else's in the family, than men would be. Therefore, differences in self-reported poor health or self-reported illness may reflect differences in ability to discuss illness, as opposed to true differences in illness rates. One way around this problem is to rely on physical examinations.

Figure 3 presents injury rates in men and women. This information is, again, self-reported but it consists of self-reports of an injury that was significant enough to require medical care, which perhaps eliminates some of the bias between men and women. Until age 55, men report far more illness than women from this cause. After age 55, women report far more injuries than men. Fractures (for example, hip fractures) are the predominant cause, and many

Figure 3. Number of persons injured per 100 persons per year, by sex and age: United States, 1980-81


SOURCE: National Center for Health Statistics, J.G. Collins: Persons injured and disability days due to injuries, United States, 1980-81. Vital Health Stat [10], No. 149. DHHS Publication No. (PHS) 85-1577. U.S. Government Printing Office, Washington, DC, March 1885.

Figure 4. Number of physician visits per person per year, by age and sex: United States, 1980


SOURCE: National Center for Health Statistics, J.G. Collins: Physician visits, volume and interval since last visit, United States, 1980. Vital Health Stat [10], No. 144. DHHS Publication No. (PHS) 85-1572. U.S. Government Printing Office, Washington, DC, June 1983.
believe that osteoporosis in the elderly is leading to this greater occurrence in women than in men at older ages.

Information on chronic conditions based on physical examinations is available from the National Health Examination Survey and population-based studies like Framingham and Rancho Bernardo. In general, men tend to report more lethal conditions than women-conditions that have a higher mortal-

Figure 5. Number of nursing home residents per 1,000 population 65 years of age and over, by sex and age:

United States, 1977


SOURCE: National Center for Health Statistics, E. Hing, M.G. Kovar, D.P. Rice: Sex differences in health and use of medical care. Vital Health Stat [3], No. 24. DHHS Publlcation No. (PHS) 83-1408. U.S. Government Printing Office, Washington, DC, 1983.
ity rate. For example, at older ages (after 65), more men than women report malignant or advanced cancer ( table 4). Other potentially lethal conditions, for example, hypertension, are more common in women. However, women are also more often under medical care. Therefore, although more women report hypertension, it is more often controlled hypertension and thus tends to be less lethal.
Also notable in considering chronic conditions is that women report more multiple conditions than men. These conditions may not be life-threatening (for example, arthritis), but this accumulation of conditions reduces a woman's quality of life.

The number of disability days is another way to assess health or quality of life. Table 5 presents restricted activity days, bed disability days, and work-loss days for men and women over age 65. For each measure, women report more disability than men. Again, whether this reflects true health differences (are women more disabled than men?) or a behavioral difference (are women more likely to stay in bed or stay home from work when they are ill?) is not known. Such behavior might actually help women live longer than men, given the same illness.

This argument also bears on sex differences for physician visits (figure 4). Women report more visits to physicians than men even if pregnancy-related visits (which explain the peak for the 20 - to 30 -yearolds) are excluded. This difference may imply that women have more ill health than men or, again, it may be a behavioral difference-that women are
more inclined to visit physicians than men, even with the same symptoms.

If women go to the physician more often than men, for whatever reason, this may have a beneficial effect. Diseases such as hypertension or diabetes may be identified and treated earlier, and therefore mortality for women may be postponed. Alternatively, visits to the physician may lead to more inappropriate drug use in women than in men.

Finally, figure 5 presents data on nursing home residents per 1,000 population in the United States. At all ages over 65, women are at greater risk of being institutionalized, possibly because more elderly women than men live alone. Among men and women over 65,40 percent of women live alone, while only 15 percent of men live alone. So there may be fewer available caretakers for the elderly
woman. Women's higher use of institutional care may therefore reflect their living situation as well as differences in health.
In conclusion, compared to men, women have lower death rates at all ages, a longer life expectancy (even after age 65), but report more illness. However, diseases among elderly women appear to be less life-threatening than those among men, and women may be more inclined to report illness than men. Women use more health services than men and, among the elderly, they are more often caregivers than men. Questions remain as to why these sex differences occur, and whether women's greater life expectancy is associated with a greater active life expectancy or if women are experiencing more years of disability and dependency.

## Older Women's Health: Contemporary and

 Emerging Health Issues
## Urinary Incontinence

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#### Abstract

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on his presentation at the National Conference on Women's Health, held in Bethesda, MD, June 17-18, 1986.
Synops/s $\qquad$
Incontinence has about a 15 percent prevalence among elderly women. Some of the factors associated with incontinence are psychosocial implications of stigmatization, the decreased quality of life, and the economic considerations of nursing home costs. There are numerous, often misdiagnosed, reversible causes of incontinence, and many of the problems associated with aging may be alleviated if incontinence is treated symptomatically and controlled.

URINARY INCONTINENCE in the elderly is clearly a major problem; it is prevalent, morbid, costly, and neglected (1).

The prevalence of incontinence in this group is impressive. Preliminary data from American studies suggest that the prevalence ranges between 15 percent and 30 percent. It is twice as prevalent in women as in men, and its prevalence increases with advancing age. Data from younger populations, and data from nursing homes (where the prevalence is roughly 50 percent) suggest that more persons suffer from incontinence than from diabetes.

The morbidity of incontinence is substantial, with costs measured in medical, psychosocial, and eco-
nomic terms. Medically, incontinence is associated with pressure sores; infections of the leg, groin, and bladder; and falls that result in subsequent fractures of the hip, spine, and skull. Psychosocially, incontinence is associated with severe stigmatization, ruined sex lives, broken relationships, premature retirement, embarrassment, anxiety, isolation, depression, regression, and, ultimately, institutionalization.
Economically, the costs of incontinence are startling. In 1983, the Surgeon General estimated that the additional expense engendered by incontinence in the nursing home was $\$ 8$ billion-a figure that exceeds the combined amount devoted to dialyze

