

HEART DISEASE IN WOMEN

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INTRODUCTION

Women and Heart Disease: An Atlas of Racial and Ethnic Disparities in Mortality—known simply as “the atlas”—contains critical data on geographic, racial, and ethnic inequalities in women’s heart disease death rates for the 5 major racial and ethnic groups in the United States. The “*Atlas*” features more than 200 national and state maps to assist health professionals in tailoring heart-healthy programs and policies to benefit women in their communities.

The “*Atlas*” was a product of an on-going collaboration between the Cardiovascular Health Branch of the Centers for Disease Control and Prevention (CDC) and the Office for Social Environment and Health Research at West Virginia University.

“Heart disease is the leading cause of death in the United States,” Halverson said. “Approximately 520,000 people die from heart disease annually. This is approximately one in every 5 deaths. More than 12.5 million people alive today have suffered a heart attack or angina pectoris.”

NATIONAL, STATE, AND COUNTY DEATH PATTERNS

The atlas contains national and state maps of heart disease death rates, population distributions, local economic resources, information about the social isolation of elderly women, and availability of medical care.

“We gathered data from more than 3,100 counties across the United States,” Halverson said. “We looked at death certificates and population estimates for women ages 35 and older in five racial and ethnic groups—White, African American, Hispanic, American Indian/Alaska Native and Asian Pacific Islanders.”

Heart disease deaths were classified as being those for which the underlying cause of death fell into the category “Diseases of the Heart.” This includes ICD-9 codes 390–398, 402, and 404–429.

“Not only did we find disparities in the death rates for women in various racial and ethnic groups, but we found that these disparities have existed for decades,” Halverson said. “African-American women have had higher death rates from car-

. . . African-American women have had higher death rates from cardiovascular disease than White women and the other racial groups since we began keeping data in 1950 for Whites and African Americans . . .

diovascular disease than White women and the other racial groups since we began keeping data in 1950 for Whites and African Americans and in 1980 for American Indians/Alaska Natives and Asian Pacific Islanders.” [Note: The atlas does not have a historical perspective. This observation is outside the scope of the atlas.]

“The death rate for White and African-American women with diseases of the heart has declined steadily in the past 50 years, but African-American women still outpace White women in deaths per 100,000,” Halverson said.

The “*Atlas*” also shows that African-American women have a higher percentage of deaths from hypertensive disease than the other racial and ethnic groups in the study.

The researchers used a process known as “spatial smoothing” to produce county-level findings that appear on maps in the atlas. This technique reduces the likelihood of generating spurious mortality rates in areas that have small populations and numbers of deaths. “The rate for a county represents an average of the mortality experience for that county and all of its neighboring counties,” Halverson said.

Health professionals using the atlas will find county-by-county maps on local economic resources, including median family income, unemployment rate, and occupational structure (the percentage of white-collar employees). The “*Atlas*” also contains information on medical care resources, such as cardio-

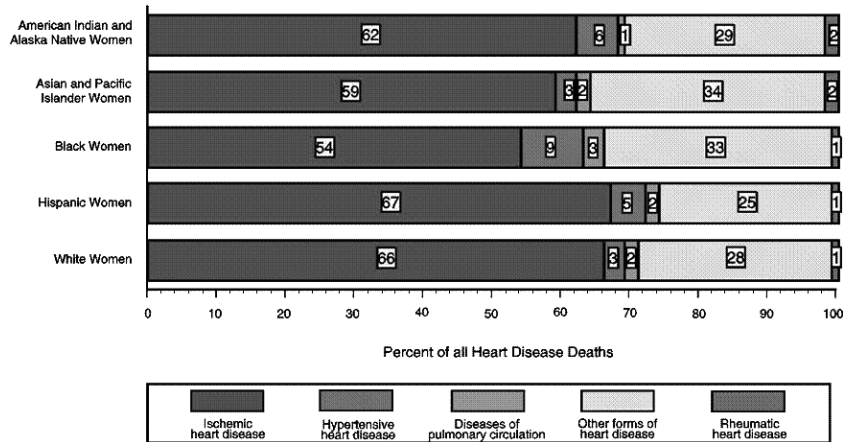


Fig 1. Heart disease deaths per 100,000 women, ages 35 and older, 1991–1995

vascular disease specialty physicians, coronary care unit beds, and cardiac rehabilitation units.

“We found some areas of the nation where medical care resources are non-existent,” Halverson said. “Cardiovascular disease patients from these areas have a hard time obtaining care.”

The social isolation of elderly women is another topic addressed in the atlas. The researchers looked at women ages 60 and older living alone and women in that age group who have mobility or self-care limitations. They found concentrations of elderly women living alone throughout the central United States. Elderly women with mobility or self-care limitations showed up more heavily in the south and in the Appalachian states.

Key findings from the atlas on heart disease death rates among women:

- Women ages 35 and older had higher rates in the eastern states than in the western states. Mississippi had the highest rate.
- White women in the Appalachian and Mississippi Delta regions had higher rates than White women in other parts of the nation.
- African-American women in Mississippi, Louisiana, and other pockets in the nation had higher rates than their counterparts in other parts of the United States.
- Hispanic women in the American Southwest, New York, and eastern Pennsylvania had higher heart disease death rates than Hispanic women elsewhere in the nation.
- American Indian and Alaska Native women in the north-central United States had higher heart disease death rates than American Indian and Alaska Native women in other states.
- The rates for Asian and Pacific Islander women in New York and the southwest were higher than for similar women living elsewhere in the nation.

NEW PROJECT

“To understand geographic disparities in health outcomes, we need to know about local social environments,” Halverson said. He listed the components of “social environment” as physical environment, population, economy, social relationships, politics and government, social educational and health services, health promotion and health status. “All of these things impact the health of a community,” Halverson said.

The atlas project has given rise to a new venture known as the Social Environment and Rural Community Health (SEARCH) project. It was funded by CDC’s Cardiovascular Health Branch for 2000–2003.

The SEARCH project is a community case study of the social environment and cardiovascular health in non-metropolitan labor market areas. It will feature a comparison between a community with high rates of mortality and one with low rates of mortality.

FOR MORE INFORMATION

The women’s heart disease atlas is available online at <http://gis.cdc.gov/cvd/>. The website contains interactive state maps, state fact sheets for women and for the total population, and methodological and technical notes. You may download the entire atlas or order a copy of the publication online from the CDC. A companion atlas entitled *Heart Disease in Men: An Atlas of Racial and Ethnic Disparities in Mortality* is also available on the CDC website.

HORMONE REPLACEMENT THERAPY: WHERE DO WE GO FROM HERE?

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INTRODUCTION

In July 2002, the National Institutes of Health closed a portion of the Women's Health Initiative that was studying the relationship between hormone replacement therapy (HRT) and its possible risks and benefits. The study had involved 16,608 healthy women, ages 50 to 70, who took either estrogen and progestin or a placebo.

Women's Health Initiative (WHI) stopped the study when it identified small but significantly increased risks of breast cancer, coronary artery disease, stroke, and vascular events. The benefits included lower risk of fractures and colon cancer. There was no difference in the death rates between the group on combined HRT (cHRT) and the group taking placebo.

"The ground rules have changed in how to prescribe hormone replacement therapy," Dr. Mary Jackson said. The purpose of her presentation at the Primary Care Conference was to review the findings and to help health professionals determine how to advise their patients who ask, "What do I do now?"

WHAT ARE THE RISKS?

Coronary Artery Disease

Women's Health Initiative (WHI) showed a small but significant increased risk for events such as non-fatal heart attacks. The risk for heart disease was 29% higher for the group taking combined HRT than for the group taking a placebo. For example, the number of heart disease events for women in the combined therapy group averaged 37 per 10,000 during a year, while the number for women on placebos averaged 30 per 10,000. "This risk appeared in the first year of cHRT use," Dr. Jackson said.

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Invasive Breast Cancer

The risk of invasive breast cancer was 26% higher in the group on cHRT. The average per year was 38 cases per 10,000 women on cHRT vs 30 cases per 10,000 women on placebo. This increase was apparent after 4 years of cHRT use and appeared to be cumulative over time. "The risk in the cHRT group increased at a higher rate than the risk that would occur normally with advancing age," Dr. Jackson said.

Stroke

There was a 41% increased risk for the group on cHRT. The average per year was 29 cases of stroke per 10,000 women on cHRT vs 21 cases per 10,000 women on placebo. "The risk appeared in the second year of combined therapy use and continued into the fifth year of the study," Dr. Jackson said.

Vascular Events

"Not surprisingly, the group on cHRT had 2-fold greater rates of blood clots than the group on placebo," Dr. Jackson said. The average per year was 34 cases of blood clots per 10,000 women on cHRT vs 16 cases per 10,000 for women on placebo.

WHAT ARE THE BENEFITS?

Colon Cancer

"The risk of colon cancer was reduced by 37% in the combined therapy group," Dr. Jackson said. The average per year was 10 cases of colorectal cancer per 10,000 women on cHRT vs 16 cases per 10,000 women on placebo. "This amounted to 6 fewer cases per year," Dr. Jackson pointed out. "The benefit appeared after 3 years of use and became more significant over time," she said.

Bone Fractures

The average per year was 10 cases of hip fracture per 10,000 women on cHRT vs 15 cases per 10,000 women on placebo (5 fewer cases per year). In the cHRT group, there was a 34% reduction in hip fractures and a 24% reduction in total fractures. "The WHI study was the first to show a decreased risk of osteoporotic fractures with HRT use," Dr. Jackson said.

WHAT DO WE TELL OUR PATIENTS?

Dr. Jackson offered these guidelines for advising patients about hormone replacement therapy:

- Women taking "estrogen only" need not change.
- We can keep giving long-term HRT to women younger than age 50.
- Women over age 50 who take cHRT solely to prevent chronic disease should consider stopping the therapy.
- Other regimens, such as lower doses or other combinations, may not be better.
- Women who stop cHRT should be assessed for osteoporosis risk.

"Many patients have vasomotor symptoms, such as hot flashes and night sweats, and we need to evaluate these women

on a case-by-case basis," Dr. Jackson said. "Find out if the patient has other risk factors for heart disease or breast cancer. Determine how disabling the vasomotor symptoms are to the patient and ask if she is willing to try alternative therapies not approved by the FDA."

Herbal therapies include soy products, black cohosh, dong quai, and Vitamin E. "Many of these have shown some decrease in vasomotor symptoms," Dr. Jackson said. Pharmacologic therapies include Megestrol acetate (Megace), Clonidine (Catapres), Fluoxetine (Prozac) and Venlafaxine (Effexor).

For patients with urogenital atrophy, Dr. Jackson said there are topical estrogens and herbal therapy, including chasteberry for vaginal dryness. For loss of libido, there is ginseng as an herbal therapy.

"There is no standardization for herbal therapies, and I am not confident that there will be more studies of such therapies in the future," Dr. Jackson concluded.

GYNECOLOGY IN THE GENERALIST'S OFFICE

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INTRODUCTION

Twenty-three thousand US women develop ovarian cancer annually. Almost 14,000 die from it each year. The 5-year survival rate is 52%.

In her gynecological practice in Lawrenceville, Georgia, Dr. Laverne Mensah sees many patients who have the signs and symptoms of ovarian cancer: abdominal bloating and distension, abdominal or pelvic pain or pressure, early satiety, nausea and vomiting, fatigue, constipation, urinary frequency, and dysfunctional uterine bleeding.

"If a woman has these symptoms, keep in mind that it might be ovarian cancer," Dr. Mensah said. At first, the symptoms may look like a gastrointestinal problem, she warned.

The 4 stages of ovarian cancer are: 1) The tumor is limited to the ovaries. 2) The tumor involves one or both ovaries and has spread to the pelvis. 3) The tumor involves one or both ovaries and has spread to the abdomen or has metastasized to the lymph nodes. 4) The metastasis is widespread and involves the liver.

"Early detection of ovarian cancer is crucial, as it increases the possibility of a cure," Dr. Mensah said. "However, the best approach is preventive therapy that requires no cure."

MEDICAL HISTORY

Dr. Mensah's patients provide a comprehensive medical history, including the chief complaint, past medical and surgical procedures, family history of disease, allergies and medications. "I ask for the patient's obstetric history, gynecologic history, sexual history, and family history," Dr. Mensah said.

"All of these factors contribute to the diagnosis," she continued. "If a woman has had several children, the treatment is different than for a woman who has never conceived. The total number of sexual partners is also important to diagnosis and treatment. Family history is extremely important—whether there has been breast, ovarian, uterine, bladder, or prostate cancer among family members."

GYNECOLOGIC EXAMINATION

The 2 parts of a gynecologic examination are a breast exam and a pelvic exam.

Breast Examination

Women should perform a breast self-exam monthly to detect cysts and solid masses. All women over the age of 50 should have an annual mammogram to detect microcalcifications (which need a biopsy) or speculated masses (which also may require a biopsy). "Agencies disagree on how often women between the ages of 40 and 50 should have mammograms," Dr. Mensah said. "The recommendations range from annually to every two to three years."

Pelvic Examination

This exam involves the vulva, the vagina, the cervix, the uterus, and the adnexa (ovaries). "If you find hyperpigmented lesions, masses, lichen sclerosis, or squamous cell hyperplasia in the vulva, the patient should have a biopsy," Dr. Mensah said. Lichen sclerosis and squamous cell hyperplasia appear as white plaque on the vulva.

Discharge from the vagina could be a symptom of vaginal melanoma, which has a 5-year prognosis. Pap smears of the cervix can be done in the traditional way or through use of a liquid-based preparation. "A woman should begin to have Pap tests at age 18 or at the onset of intercourse," Dr. Mensah recommended. Cervical cultures can be taken to detect sexually transmitted diseases, such as gonorrhea or chlamydia. Twenty-percent of women have uterine fibroids, which are usually benign, Dr. Mensah continued. Postmenopausal bleeding can be a serious finding in the uterine exam. "It can be a precursor to uterine cancer and should be biopsied," Dr. Mensah said. "A hysterectomy is better than advanced uterine cancer, which usually cannot be cured."

GYNECOLOGIC DISORDERS

Dr. Mensah focuses on 4 types of gynecologic disorders: contraception, dysfunctional uterine bleeding, amenorrhea (abnormal absence or suppression of menstruation) and pelvic infections. Contraception ranges from abstinence to barrier methods (condoms or gels), oral contraceptives and medications, such as patches, vaginal rings and IUDs. Dysfunctional uterine bleeding may be caused by pregnancy; lower genital tract lesions, such as fibroids, polyps, infection, trauma and malignancy; coagulation disorders; iatrogenic causes, such as hormones, drugs, chemotherapy or dialysis; and anovulatory bleeding. Amenorrhea may be traced to pregnancy, menopause, thyroid

dysfunction, hypopituitarism, hyperprolactinemia, or Asherman's syndrome (scarring of the uterus). Pelvic infections may include cervicitis, salpingitis, or bacterial vaginosis.

PREVENTION ADVICE

Dr. Mensah sees a variety of women in her practice. To prevent gynecological problems, she advises patients to:

- Stop smoking.
- Have regular screenings for breast, cervical, and colon cancer.
- Practice good nutrition.
- Exercise regularly.
- Check cholesterol.
- Screen for diabetes.