

Women's Health

Update



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Bureau of Health Promotion and Risk Reduction, Office of Healthy Ohio, Ohio Department of Health

Update Focus: Women and Chronic Diseases

LETTER FROM DEBRA SELTZER

This issue is about women and chronic disease, and I am certain each of us reading the articles will connect faces from our lives with the tragic impact of these diseases. The clear answer for improved quality of life, containment of medical costs and reduction of other negative economic impacts of disease is for our society to be more successful at preventing chronic disease. Prevention can occur on many levels; one important perspective on an underlying contributor to the extent of chronic diseases is the Adverse Childhood Effects (ACE) Study. A full review of the ACE Study can be found at <http://www.aces-study.org>. In summary, the ACE Study is a large scientific research study that analyzes the relationship between multiple categories of childhood trauma and health and behavioral outcomes later in life. The study finds an increase in "adverse effects" experienced as a child increases the risk for negative health and medical conditions later in life. Women were 50 percent more likely than men to have experienced five or more categories of adverse childhood experience. We are just beginning to understand the implications of this study, which point to both primary prevention of childhood trauma and increased capacity for intervention in the aftermath of trauma as valuable not just for its own sake but to prevent the ongoing, negative effects throughout the victims' lifetime. It is the hope of the program that our increasing understanding of these issues will lead to better strategies for true prevention of chronic diseases.

Debra Seltzer
Administrator, Violence and Injury Prevention Program

CHRONIC DISEASES: THE POWER TO PREVENT, THE CALL TO CONTROL

[Excerpted from Centers for Disease Control and Prevention (CDC)]

What are Chronic Diseases?

Chronic diseases are non-communicable illnesses that are prolonged in duration, do not resolve spontaneously and are rarely cured completely. Examples of chronic diseases include heart disease, cancer, stroke, diabetes and arthritis.

- About 133 million Americans—nearly 1 in 2 adults—live with at least one chronic illness.
- More than 75 percent of health care costs are due to chronic conditions.
- Approximately one-fourth of persons living with a chronic illness experience significant limitations in daily activities.
- The percentage of U.S. children and adolescents with a chronic health condition has increased from 1.8 percent in the 1960s to more than 7 percent in 2004.

Although chronic diseases are more common among older adults, they affect people of all ages and are now recognized as a leading health concern of the nation. Growing evidence indicates a comprehensive approach to prevention can save tremendous costs and needless suffering.



Key Chronic Diseases: The Facts

- Heart disease and stroke are the first and third-leading causes of death, accounting for more than 30 percent of all U.S. deaths each year.
- Cancer, the second-leading cause of death, claims more than half a million lives each year.
- Diabetes is the leading cause of kidney failure, non-traumatic lower extremity amputations and new cases of blindness each year among U.S. adults aged 20–74 years.
- Arthritis, the most common cause of disability, limits activity for 19 million U.S. adults.
- Obesity has become a major health concern for people of all ages. 1 in every 3 adults and nearly 1 in every 5 young people aged 6–19 are obese.

Chronic Diseases are Preventable

Chronic diseases are the most common and costly of all health problems, but they are also the most preventable. Four common, health-damaging, but modifiable behaviors—tobacco use, insufficient physical activity, poor eating habits and excessive alcohol use—are responsible for much of the illness, disability and premature death related to chronic diseases.

Risk Behaviors: The Facts

- More than 43 million (about 1 in 5) U.S. adults smoke.
- 1 in 5 U.S. high school students are current smokers.
- More than one-third of all U.S. adults fail to meet minimum recommendations for aerobic physical activity based on the 2008 Physical Activity Guidelines for Americans.
- Only 1 in 3 U.S. high school students participates in daily physical education classes.
- More than 60 percent of U.S. children and adolescents eat more than the recommended daily amounts of saturated fat.
- Only 24 percent of U.S. adults and 20 percent of U.S. high school students eat five or more servings of fruits and vegetables per day.
- About 1 in 6 Americans aged 18 years and older engage in binge drinking (5 or more drinks for men and 4 or more drinks for women during a single occasion) in the past 30 days.
- Nearly 45 percent of U.S. high school students report having had at least one drink of alcohol in the past 30 days.

ARTHRITIS IN WOMEN

(Excerpted from Arthritis Foundation, [Take Control](#))

The term “arthritis” encompasses more than 100 diseases and conditions that affect joints, the surrounding tissues and other connective tissues. Arthritis can cause mild to severe pain in the joints, as well as joint tenderness and swelling. Approximately 46 million Americans have some type of arthritis or related condition. The various forms of arthritis and related conditions can affect anyone, no matter what your race, gender or age. However, it is especially important for women to be educated about these diseases since they affect women at a much higher rate than men. Sixty percent of all people who have arthritis are female, and several of the more common forms are more prevalent in women.

Osteoarthritis, also known as degenerative joint disease or OA, is the most common form of arthritis. Of the nearly 27 million Americans who have osteoarthritis, approximately 16 million are women. Women usually develop OA after age 40. It causes damage to cartilage and bones, causing joint pain, swelling, stiffness and loss of function.

Fibromyalgia is a syndrome characterized by widespread musculoskeletal pain. It is associated with generalized muscular pain and fatigue, loss of sleep, stiffness and sometimes depression and/or anxiety. Fibromyalgia is a form of soft tissue or muscular rheumatism, which means no joint deformity occurs. An estimated 3.7 million Americans have fibromyalgia; the figure may actually be higher since some of its symptoms may be found in other conditions such as chronic fatigue syndrome (which is also more common in women).

Rheumatoid arthritis (RA) usually strikes women between the ages of 25 to 50, but can occur in children. RA is a systemic disease that can affect the entire body. An abnormality in the body's immune system causes it to work improperly, leading to inflammation in the lining of the joints and other internal organs. Chronic inflammation can lead to deterioration, pain and limited movement. Approximately 1.3 million American adults have RA, with women outnumbering men 2.5-to-1.

Lupus (systemic lupus erythematosus) is an inflammatory disease that may affect the joints, skin, kidneys and other parts of the body. Almost 240,000 Americans — 90 percent of whom are women — have this arthritis-related condition. It usually affects women of childbearing age and is more common among African-American

women than Caucasian women. Some studies indicate it may also be more common among Asian and Latino populations.

Osteoporosis is a disease whose name literally means “bone that is porous.” It causes bones to lose mass and become brittle, which can lead to rounded shoulders, loss of height and painful fractures. It affects approximately 28 million Americans; four of every five people affected are women. Postmenopausal women and those with small or thin frame, a family history of osteoporosis and habits such as smoking and drinking are at higher risk for osteoporosis. People who have inflammatory arthritis (such as RA) and who take glucocorticoid medications also have an increased risk of developing the disease.

Many other arthritis-related conditions and connective tissue disorders also affect more women than men. Raynaud’s phenomenon, scleroderma, Sjögren’s syndrome and polymyalgia rheumatica are just a few conditions that may not be as prevalent as others described in this section, but are still health problems that should be treated in conjunction with an experienced health-care team.

CARDIOVASCULAR DISEASE AND WOMEN

By Janelle Edwards, MPH, CHES, Health Educator

Ohio Heart Disease and Stroke Prevention Program, Office of Healthy Ohio, Ohio Department of Health

Background

Cardiovascular disease (CVD) refers to any disorder that can affect the circulatory system but often means coronary heart disease, heart failure and stroke taken together (DeFiore-Hyrmer & Pryor, 2006). Heart disease is the leading cause of death in the United States and is a major cause of disability. Almost 652,091 people die of heart disease in the United States each year (Center for Disease Control, 2008). In addition, stroke, the third-leading cause of death in the United States can cause significant disability including paralysis, speech impairments and emotional problems (CDC, 2007).

CVD in Ohio

CVD was the leading cause of death (38,123 deaths) among Ohio residents in 2005, accounting for 35 percent

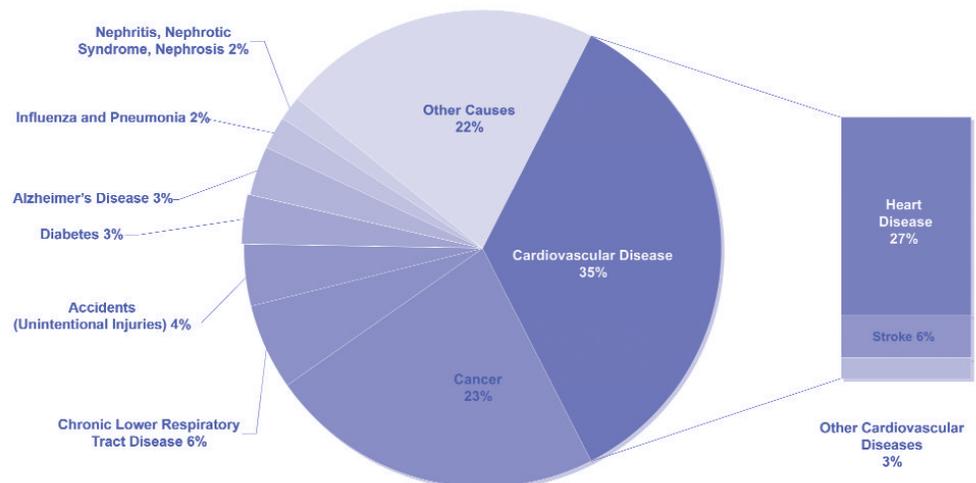
of all deaths. There were more deaths in Ohio from CVD than from cancer, automobile crashes, suicide, homicide and AIDS combined (Figure 1) (DeFiore-Hyrmer and Pryor, 2009).

Heart disease, specifically, is the leading cause of death for both males and females in Ohio. Twenty-seven percent (28,995 deaths) of all deaths in Ohio in 2005 are attributable to heart disease (Figure 4-1) (DeFiore-Hyrmer & Pryor, 2009).

CVD as a women’s health issue

Heart disease is the No. 1 killer of women. One in four women dies of heart disease, while one in 30 dies of breast cancer. Many times, heart disease is perceived as an “older woman’s disease,” but heart disease is the third-leading cause of death among women aged 25–44 years and the second-leading cause of death among women aged 45–64 years (CDC, 2006). Further, women aged 55 years and younger with heart disease account for almost 40,000 hospitalizations and 16,000 deaths annually (<http://www.womensheart.org>).

Heart disease is often perceived to be a condition that primarily affects men, but women of all racial and ethnic



Source: DeFiore-Hyrmer, J., & Pryor, B. The Burden of Heart Disease. Columbus, OH:

Chronic Disease and Behavioral Epidemiology, The Ohio Department of Health; 2009 (in press).

¹ Cardiovascular Disease was defined as ICD 10 codes I00-I78.

² Heart Disease was defined as ICD-10 codes I00-I09, I11, I13, I20-I51.

³ Stroke was defined as ICD-10 codes I60-I69.

⁴ Cancer was defined as ICD-10 codes C00-C97.

⁵ Nephritis, Nephrotic Syndrome and Nephrosis was defined as ICD 10 codes N00-N07, N17-N19, N25-N27.

⁶ Influenza and Pneumonia was defined as ICD 10 codes J10-J18.

⁷ Alzheimer’s disease was defined as ICD 10 codes G30.

⁸ Accidents (Unintentional Injuries) was defined as ICD 10 codes V01-X59, Y85-Y86.

⁹ Chronic Lower Respiratory Tract Disease was defined as ICD ¹⁰ codes J40-J47

groups are at risk as women account for 51 percent of the total heart disease deaths each year in the United States (CDC, 2006). Furthermore, heart attacks for women aged 50 years and younger are twice as likely to be fatal, compared to those of men, and 38 percent of women will die within one year of a first recognized heart attack, compared to 25 percent of men (<http://www.womensheart.org>). It is important for all women to recognize the seriousness of the disease, as they are two to three times more likely to die following heart bypass surgery. In particular, younger women between the ages of 40-59 are up to four times more likely to die from heart bypass surgery than men the same age.

In recent years, women have become more aware that heart disease is the No. 1 killer but, many still underestimate their own risk for CVD. A 2003 study conducted by the American Heart Association revealed 46 percent of women identified heart disease as the No. 1 killer of women but unfortunately, only 13 percent of the women in the study perceived heart disease as their greatest health problem (CDC, 2006).

Women often delay seeking medical attention for heart symptoms, perhaps because they are more likely than men to have some of the other warning signs of a heart attack. Women may have:



- Pain or discomfort in the center of the chest.
- Spreading pain to one or both arms, back, jaw or stomach.
- Shortness of breath and trouble breathing.
- Unexplained anxiety, weakness or tiredness.
- Cold sweats and nausea, paleness or dizziness

Other warning signs of heart attack include:

- Uncomfortable pressure, fullness, squeezing or pain in the center of the chest that lasts more than a few minutes or that goes away and comes back.
- Pain spreading to the shoulders, neck or arms.
- Chest discomfort with lightheadedness, fainting, sweating, nausea or shortness of breath.

The signs may be mild or severe. If you or someone you know is having any of these signs, **call 9-1-1 to get help right away!**

Protecting your heart

Women can lower their heart disease risk by as much as 82 percent just by leading a healthy lifestyle (The National Heart, Lung, and Blood Institute, [NHLBI], 2007). Because cardiovascular disease is mostly preventable, every woman can take steps to lower her risk. It is never too early or too late to improve heart health. Regardless of a woman's age, she needs to take action to protect her heart health. There are many simple and easy steps that can be taken to reduce your risk for heart disease:

- Knowing your blood pressure and working to keep it an optimal level.
- Maintaining a healthy weight
- Following a healthy eating plan that includes foods low in salt and fats, and high in fruits and vegetables.
- Being physically active each day.
- If you smoke, stop. Smoking doubles your risk for stroke.
- Getting regular medical check-ups.
- Practicing healthy lifestyle behaviors can help all women reduce their risk for cardiovascular disease to live longer, independent lives.

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WOMEN AND STROKE

By Nancy L. Patton, RN, MS,
Quality Improvement Coordinator, Paul Coverdell
National Acute Stroke Registry Program,
Ohio Department of Health

What is a stroke?

According to the National Institute of Neurological Disorders and Stroke, stroke is the leading serious neurological disorder in the United States. It ranks third in all causes of death and is a major cause of disability in Americans. A stroke is the disruption of the blood supply to the brain. It is sometimes called a "brain attack."

What are the signs of a stroke?

A stroke happens fast. Most people have two or more of the following common signs:

- Sudden numbness or weakness of face, arm or leg (mainly on one side of the body)
- Sudden trouble seeing in one or both eyes
- Sudden trouble walking; dizziness or loss of balance
- Sudden confusion or trouble talking or understanding speech
- Sudden bad headache with no known cause

Women may have unique symptoms:

- Sudden face and arm or leg pain
- Sudden hiccups
- Sudden nausea (feeling sick to your stomach)
- Sudden tiredness

- Sudden chest pain
- Sudden shortness of breath (feeling like you can't get enough air)
- Sudden pounding or racing heartbeat

If you have any of these symptoms, call 911 immediately or have someone call 911 for you.

Who is at risk for stroke?

It is a myth that stroke occurs only in older adults. A person of any age can have a stroke. But, stroke risk does increase with age. For every 10 years after the age of 55, the risk of stroke doubles, and two-thirds of all strokes occur in people over 65 years old. Stroke also seems to run in some families. Stroke risk doubles for a woman if someone in her immediate family (mom, dad, sister or brother) has had a stroke.



Compared to white women, African-American women have more strokes and have a higher risk of disability and death from stroke. This is partly because more African-American women have high blood pressure, a major stroke risk factor. Women who smoke or who have high blood pressure, atrial fibrillation (a kind of irregular heartbeat), heart disease or diabetes are more likely to have a stroke. Hormonal changes with pregnancy, childbirth and menopause are also linked to an increased risk of stroke. Birth control pills are generally safe for young, healthy women. But birth control pills can raise the risk of stroke for some women, especially women over 35; women with high blood pressure, diabetes or high cholesterol; and women who smoke. Talk with your doctor if you have questions about the pill.

Who is affected by stroke?

An estimated 3.9 million female stroke survivors are alive today in the United States.

Among women age 20 and older, the following have had a stroke:

- 3.2 percent of non-Hispanic whites
- 4.1 percent of non-Hispanic blacks
- 3.8 percent of Mexican Americans

Each year, about 55,000 more women than men have a stroke. This is because the average life expectancy for women is greater than for men and the highest rates for stroke are in the oldest age groups. The 2005 stroke mortality for females was 60.6 percent of total stroke deaths. In 2006, 486,000 females were discharged from short-stay hospitals after having a stroke.

Experts think up to 80 percent of strokes can be prevented. Some stroke risk factors cannot be controlled, such as age, family history and ethnicity. But you can reduce your chances of having a stroke by taking these steps:

- Know your blood pressure
- Don't smoke
- Get tested for diabetes
- Get your cholesterol and triglyceride blood levels tested
- Maintain a healthy weight
- If you drink alcohol, limit it to no more than one drink (one 12-ounce beer, one 5-ounce glass of wine or one 1.5-ounce shot or hard liquor) a day
- Find healthy ways to cope with stress and depression

For more information on stroke, contact any of the following organizations:

National Institute of Neurological Disorders and Stroke
Phone: (800) 352-9424

Internet: <http://www.ninds.nih.gov/>

National Heart, Lung, and Blood Institute
Phone: (301) 592-8573

Internet: <http://www.nhlbi.nih.gov/index.htm>

American Heart Association Phone: (800) 242-8721,
Internet: <http://www.americanheart.org/>

National Stroke Association Phone: (800) 787-6537,
Internet: <http://www.stroke.org/>

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CME Resource, Ischemic Stroke, March 2009, Volume 134, No. 9

DIABETES AND WOMEN

By Terri L. Watkins, RN, BSN

Ohio Diabetes Prevention and Control, Office of Healthy Ohio, Ohio Department of Health

Diabetes is a disease that affects the body's ability to produce or respond to insulin. It can lead to serious complications, which is why people with diabetes must take steps to control the disease to lower their risk of complications.

Diabetes is the seventh-deadliest disease in the United States. Almost 24 million children and adults in the United States have diabetes, and 11.5 million of them are women. The prevalence of diabetes in women is at least two-four times higher among African-American, Hispanic/Latino, American Indian and Asian/Pacific Islander women than among white women. Because of the increasing lifespan of women and the rapid growth of minority populations, the number of women in the United States at high risk for diabetes and its complications is increasing.

When compared with men, women have a 50 percent greater risk of diabetic coma, a condition brought on by poorly controlled diabetes and lack of insulin. Women with diabetes also have heart disease rates similar to men, but more women with diabetes die from a first heart attack than men with diabetes.

One-quarter of women with diabetes, or approximately 2.8 million, do not even know they have diabetes. Before people develop type 2 diabetes, they almost always have "pre-diabetes" – blood glucose levels that are higher than normal but not yet high enough to be diagnosed as diabetes. There is a serious possibility that pre-diabetes can turn into full-blown diabetes. That is why if you have risk factors (hereditary factors, obesity, extreme thirst, urinating constantly and/or tired for no reason), you should consult your physician for a fasting plasma glucose test. In this test, a person's blood glucose is measured first thing in the morning before eating. If you are pre-diabetic, on physician's advice, you will want to improve your diet and participate in moderate exercise.

Diabetes also poses special challenges during pregnancy. Diabetes impacts not just mothers but unborn children. Gestational diabetes, which occurs during pregnancy, is a form of glucose intolerance diagnosed in women during pregnancy. While gestational diabetes develops in 2 percent to 5 percent of all pregnancies, it usually disappears when a pregnancy is over. Other difficulties that can be experienced are miscarriage or a baby born with birth defects. Women who have had gestational diabetes or have given birth to a baby weighting more than 9 pounds are at an increased risk for developing type 2 diabetes later in life.

Women who are able to control their blood glucose, blood pressure and cholesterol levels decrease their risk of getting cardiovascular disease (disease of the heart and blood vessels). Women with diabetes who do not keep good control are more likely to have a heart attack, stroke or other health problems.

Because of the significant impact diabetes has on women, the American Diabetes Association (ADA) created the Women and Diabetes Workgroup. Its mission is to represent, involve and affect all women in an effort to prevent and cure diabetes and improve the lives of people affected by this disease. Women with questions and concerns about diabetes, or who are seeking support or direction regarding diabetes and its management, can call the ADA call center toll-free at 1-800-342-2383.

Another source of information is the U.S. Department of Health and Human Services Women's Health Information Center (<http://www.womenshealth.gov>). You may contact them at 1-800-994-9662 or 1-888-220-5446 for the hearing impaired.



WOMEN AND OBESITY

Linda J. Scovern, MPH, RD, LD, PAPHS

Physical Activity and Nutrition Program Coordinator,
Ohio Department of Health

If you look at every magazine targeted to women, you will see articles on weight loss or dieting. Is weight and weight loss an obsession among women, or is this just a way to sell more magazines? Women may be reading the articles, but are they effective?

The research and data collected by health organizations suggest not. Although overweight and obesity are the leading nutritional concerns in the United States, it is a more common problem for women. (4) More women than men are obese. Of women 20-74 years old, 62 percent are overweight (BMI ≥ 25) and 34 percent are obese (BMI ≥ 30). These conditions affect African-American women to an even greater degree, with approximately 80 percent classified as overweight, and more than 50 percent as obese. (1)

Increase in Overweight and Obesity Prevalence (percent) Among Women by Racial / Ethnic Group

Racial / Ethnic Group	Overweight(BMI > 25)	Obesity(BMI > 30)
Black (non-Hispanic)	78	50.8
Mexican American	71.8	40.1
White (non-Hispanic)	57.5	30.6

Source: CDC, National Center for Health Statistics, National Health and Nutrition Examination Survey, Health. United States (Table 70) 2002.

The higher incidence of obesity in women versus men (54 percent vs. 46 percent respectively) plays an important role in health-related issues. Obese women experience more than twice the amount of disease related to weight as men and are more likely to die at an early age than obese men. (2, 3)

Overweight and obesity are associated with several chronic conditions including heart disease, stroke, type 2 diabetes mellitus and a higher risk of developing cancers of the gallbladder, breast, endometrium and colon. (2, 4) Some of these obesity-related conditions uniquely or mostly affect women. Other conditions related to obesity and overweight include increased risk of developing arthritis (four times that of men), gallstones (twice that of men), osteoarthritis, gout, sleep apnea, hypertension, hyperlipidemia and pregnancy complications such as neural tube defects. (3)

Aside from physical effects, obesity may also affect a woman's psychological status. (4) Being overweight carries a stigma that hits women much harder than men. Obese women often experience prejudice and discrimination, including in employment. For example, after undergoing surgery to reduce weight, a drop in unemployment rate from 84 percent to 64 percent was reported for women. (3)

But, there is good news. The number of overweight and obese women has remained steady for the past several years, even as those for children and men have increased. According to George L. Blackburn, M.D., Ph.D., associate professor of nutrition at Harvard Medical School, "It gives you optimism, because women are always the leader in this area. Women are the ones who shop and cook for their families," he says, and they keep their fingers on the pulse of their families' health. If they've 'got it' and are not increasing their weight, that's big news." (3)

So, what are women to do? Forget dieting and pay no attention to the magazine headlines. Yo-yo dieting or weight cycling, where weight goes down and up again and again, has been associated with increased risk for obesity. (3) It does not work. Instead, focus on eating a diet high in fruits and vegetables, complex carbohydrates and lean protein, and low in saturated fat and sugars. (4) Reduce portion sizes. Get active – aim for 30 to 60 minutes of moderate to vigorous physical activity almost every day to total 150 minutes or more per week. These healthy lifestyle changes can assist with permanent weight loss, which in turn helps reduce the likelihood of developing chronic diseases and associated conditions. And, just as important, self-esteem and mood are improved. (3, 4)

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CERVICAL CANCER AMONG OHIO FEMALES

By Robert Indian

Chief, Comprehensive Cancer Control Program, Office of Healthy Ohio, Ohio Department of Health

Incidence and Mortality

During 2001-2005, an average of 482 new cases of invasive cancers of the cervix, also known as cervical cancer, were diagnosed each year among Ohio females. These new cases made up about 1.7 percent of the new cases of invasive cancer diagnosed among Ohio females. The average annual age-adjusted cervical cancer incidence rate in Ohio for 2001-2005 was 7.9 per 100,000 females, which is about 6 percent lower than the United States estimated incidence rate of 8.4 per 100,000. The average annual age-adjusted incidence rates per 100,000 females for the 88 Ohio counties ranged from a high of 23.0 in Harrison County to a low of 4.6 in Auglaize County. Ohio African American females, have an average annual age-adjusted incidence rate of 8.7 per 100,000 for invasive cervical cancer, which is 14 percent higher than the rate of 7.6 per 100,000 for Ohio white females for the years 2001-2005. United States females have a 1 in 159 (0.6 percent) lifetime risk of being diagnosed with invasive cervical cancer.

There were an average of 157 deaths from cervical cancer among Ohio females each year during 2001-2005. The average annual age-adjusted mortality rate for cervical cancer was 2.4 per 100,000 females, which is very similar to the national rate of 2.5 per 100,000. African-American Ohio females had an average annual cervical cancer mortality rate of 3.7 per 100,000, which is 61 percent higher than the white Ohio female rate of 2.3 per 100,000 for the years 2001-2005.

Risk Factors

There are a number of factors that increase the risk of a woman developing cervical cancer:

- Infection with the human papilloma virus (HPV): Infection with HPV is the primary cause of cervical cancer. HPV is transmitted via sexual intercourse. There are more than 100 types of HPVs. Of these, 30 types can infect the cervix, and about half of these have been associated with cervical cancer. The majority (66 percent) of all cervical cancers are caused by one of two specific types of HPV: HPV-16 and HPV-18.
- Risky sexual behavior: Because HPV is sexually transmitted, risky sexual behavior is associated with increased cervical cancer risk. Risky behaviors include: early age at

first sexual intercourse; having numerous lifetime sexual partners; having a sexual partner who has had multiple sex partners; lack of use of barrier contraceptive methods (such as condoms); and having uncircumcised male sexual partner(s).

- Numerous full-term pregnancies: Having seven or more full-term pregnancies increases risk.
- Long-term use of oral contraceptives: Using oral contraceptives more than five years increases risk.
- Low socioeconomic status (SES): Women of low SES are at higher risk, at least in part because of reduced access to health care services such as regular Pap tests.
- Lack of regular Pap tests: Women who do not have regular Pap tests have increased risk.
- Tobacco smoking: Women who regularly smoke are two times more likely to develop cervical cancer, compared to non-smokers.
- Immune suppression: HIV infection and organ transplantation suppress the immune system and increase the risk of cervical cancer.
- Other factors may increase cervical cancer risk: (a) infection with Chlamydia or other sexually transmitted diseases; (b) family history of cervical cancer; (c) diet low in fruits and vegetables; and (d) having a mother who took diethylstilbestrol (DES) during pregnancy to prevent miscarriage.

Signs and Symptoms

Please note many women with early-stage cervical cancer have no signs or symptoms. Symptoms usually appear only after abnormal cells have invaded nearby tissue. Symptoms include:

- Abnormal vaginal bleeding
- Heavier, long-lasting menstrual bleeding
- Unusual vaginal discharge
- Pelvis pain



Screening

Regular screening for cancer of the cervix can result in detection of the cancer at earlier stages when treatment is more likely to be successful. Screening for cervical cancer should begin about three years after a woman begins having vaginal intercourse, but no later than 21 years of age. The American Cancer Society recommends a Pap test every year or a liquid-based cervical cytology test every two years for average risk, asymptomatic females. Women 30 years and older who have had three consecutive normal annual Pap exams may get screened every two to three years. Alternatively, HPV DNA testing and conventional or liquid-based cytology could be performed every three years. Women who have risk factors such as HIV infection or a weakened immune system, may need to get screened more often. Women 70 years and older who have had three or more consecutive normal Pap tests in the last 10 years may choose to stop cervical cancer screening. Screening after a total hysterectomy is not necessary unless the surgery was done as a treatment for cervical cancer.

Data sources and additional information available at the end of the article on ovarian cancer.

BREAST CANCER AMONG OHIO FEMALES

By Robert Indian

Chief, Comprehensive Cancer Control Program, Office of Healthy Ohio, Ohio Department of Health

Incidence and Mortality

An average of 8,063 new cases of invasive breast cancer were diagnosed among Ohio females each year during 2001-2005. The average annual age-adjusted invasive breast cancer incidence rate was 121.9 per 100,000 females, which is about 3 percent lower than the estimated national rate of 126.1 per 100,000 females. During 2001-2005, invasive breast cancer was the most frequent invasive cancer among Ohio females, comprising 29 percent of all new cases. Among females in the 88 Ohio counties, the average annual age-adjusted invasive breast cancer incident rate per 100,000 females ranged from a high of 133.1 in Allen County to a low of 69.5 in Noble County for the years 2001-2005.

There were an average of 1,900 deaths attributed to breast cancer among Ohio females, each year during 2001-2005. The average-annual age-adjusted breast cancer mortality rate was 27.5 per 100,000 females, which is about 10 percent higher than the national mortality rate of 25.0 per 100,000. During 2001-2005, the 88 counties had an average annual age-adjusted

breast cancer mortality rates per 100,000 females ranging from a high of 40.1 in Madison County to a low of 10.8 in Gallia County.

In the United States, females have a 1 in 10 (10 percent) lifetime risk of being diagnosed with invasive breast cancer.

The average annual age-adjusted rate for invasive breast cancer incidence rate for Ohio African-American females was 115.0 per 100,000, which is about 3 percent lower than the rate of 118.5 for Ohio white females during 2001-2005. However, the Ohio African-American female death rate for breast cancer for the same years was 35.4 per 100,000, which is about 33 percent higher than the Ohio white female breast cancer death rate of 26.7. This apparent paradox for African-American females of lower incidence but higher mortality for breast cancer, when compared to white females has defied simple explanation. Factors may include access to care, stage at diagnosis, continuity in care and different types of tumors.

Risk Factors

There are numerous factors that increase the risk of developing breast cancer. These include:

- **Increasing age:** The risk of developing female breast cancer increases with increasing age. About half of all women diagnosed with breast cancer are over the age of 65 years.
- **BRCA1 and BRCA2 gene mutations:** About 10 percent of female breast cancers are linked to genetic factors including BRCA1 and BRCA2 gene mutations. Women with a blood relative who has had breast cancer are at greater risk, especially if the relative is a mother, sister or daughter. BRCA gene mutations are more common in certain populations such as Ashkenazi Jewish females. Mutations in other genes, including the ATM gene, CHEK-2 and P53, also increase risk.
- **Family cancer history:** A family history of female or male breast, ovarian, cervical, uterine or colon cancer, especially in a mother or sister, increases risk. Having more than one blood relative diagnosed with female breast cancer more than doubles the risk, compared to those having only one blood relative diagnosed with female breast cancer.
- **Previous breast cancer or benign breast disease:** A diagnosis of breast cancer in one breast increases the risk of diagnosis in the other breast or another area of the affected breast. A personal history of benign breast disease also increases risk, an abnormal breast biopsy showing proliferative lesion(s) (excessive growth of cells in the ducts or lobules of the breast) without atypia (abnormal cells) slightly raises breast cancer risk, while proliferative

lesion(s) with atypia increases female breast cancer risk about fivefold.

- **Radiation:** A history of radiation to the chest as a child or young adult increases risk, particularly if the radiation was received during puberty.
- **Early menstruation/late menopause:** Menstruating before age 12 or starting menopause after age 55 increases risk.
- **Late or no childbirth:** Not having children or having a first child after age 30 increases risk.
- **Hormone replacement therapy:** Long-term use of hormone replacement therapy, particularly estrogen and progesterone combined, increases female breast cancer risk. The evidence concerning estrogen-only therapy is mixed.
- **Alcohol:** Consumption of alcoholic beverages increases risk. Persons who drink two to five alcoholic drinks per day have 1 times the risk of non-drinkers. The breast cancer risk increases in a dose-dependent fashion with the amount of alcohol consumed.
- **Physical inactivity:** There is a growing body of evidence that physical inactivity increases risk. There is no consistent guideline as to exactly how much physical activity is necessary to decrease risk; exercising more than four hours per week has been shown to decrease risk.
- **Overweight/obesity:** Being overweight or obese increases female breast cancer risks in postmenopausal women, particularly if the weight gain occurred as an adult.

Signs and Symptoms

Early-stage female breast cancer typically does not cause pain. Common symptoms of female breast cancer include nipple discharge, a change in how the breast or nipple feels and/or a change in how the breast or nipple looks. Also, the skin of the breast, areola or nipple may appear scaly, red or swollen, or may have ridges or pitting that resembles the skin of an orange. A woman with any of these symptoms should consult with her doctor as soon as possible.

Screening

The American Cancer Society recommends women age 20 to 39 years should have clinical breast examinations every three years and should perform monthly breast self-exams. Women age 40 years and older should have annual mammograms in addition to annual clinical breast exams and monthly self-exams. Women should discuss these recommendations with their doctor particularly in light of family history of breast cancer and other risk factors.

Data sources and additional information available at the end of the article on ovarian cancer.

OVARIAN CANCER AMONG OHIO FEMALES

By Robert Indian

Chief, Comprehensive Cancer Control Program,
Office of Healthy Ohio, Ohio Department of Health

Incidence and Mortality

During 2001-2005, an average of 821 new cases of invasive cancer of the ovaries, also known as ovarian cancer, were diagnosed each year among Ohio females. These new cases made up about 3 percent of the new cases of invasive cancer diagnosed among Ohio females. The average annual age-adjusted ovarian cancer incidence rate in Ohio for 2001-2005 was 12.3 per 100,000 females, which is about 8 percent lower than the United States estimated incidence rate of 13.3 per 100,000. The average annual age-adjusted incidence rates per 100,000 females for the 88 Ohio counties during 2001-2005 ranges from a high of 29.9 in Noble County to a low of 7.4 in Guernsey County. Ohio African-American females had an average annual age-adjusted incidence rate of 8.5 per 100,000, which is about 33 percent lower than the Ohio white female rate of 12.6 for the years 2001-2005.

There were an average of 629 deaths from ovarian cancer among Ohio females each year during 2001-2005. The average annual age-adjusted mortality rate for ovarian cancer was 9.0 per 100,000 females, which was very similar to the national rate of 8.8. Ohio African-American females had an average annual age-adjusted ovarian cancer mortality rate of 6.9 per 100,000, which is about 26 percent lower than the Ohio white female rate of 9.3 per 100,000 for the years 2001-2005.

Risk Factors

A number of factors impact the risk of a woman developing ovarian cancer including:

- Increasing age: Ovarian cancer risk increases with age, with most cases developing after menopause. About half of all ovarian cancers are diagnosed in women over age 63 years.
- Early menstruation/delayed menopause: A greater number of lifetime menstrual cycles increases risk. Starting to menstruate at an early age (before age 12), having no children and experiencing menopause after age 50 years increase risk.
- Family history of breast/ovarian cancer: Having a mother, sister or a daughter diagnosed with ovarian cancer increases risk, especially if the relative was diagnosed at a young age. A family history of breast or col-

orectal cancer also increases risk.

- Personal history of breast cancer: A woman with a history of breast cancer has increased risk of also developing ovarian cancer.
- Estrogen replacement therapy: Estrogen replacement therapy after menopause may increase risk.
- Sterilization and hysterectomy: Undergoing tubal ligation or hysterectomy decreases the risk of ovarian cancer.
- Oral contraceptives: Use of oral contraceptives may decrease risk.

Data Sources and Additional Information

- American Cancer Society-Ohio Division, Ohio Department of Health, The Ohio State University, Ohio Cancer Facts and Figures 2008. Columbus: American Cancer Society-2008.
- Cancer Incidence and Mortality among Ohio Residents, 2001-2005. Ohio Cancer Incidence Surveillance System, Ohio Department of Health and The Ohio State University, Columbus, Ohio, October 2008.
- National Cancer Institute:
<http://www.cancer.gov/cancertopics/types/ovarian/>
- American Cancer Society:
<http://www.cancer.org>



ORGANIZATIONS AND ASSOCIATIONS

Chronic Disease Prevention and Health Promotion Organization and Association

National Center for Chronic Disease Prevention and Health Association (NCCDPHP)
Centers for Disease Control and Prevention
4770 Buford Hwy,
NEMS K-40 Atlanta, GA 30341-3717
Tel: (404) 639-3311 / Public Inquiries: (404) 639-3534 / (800) 311-3435

For more information, go to: <http://www.cdc.gov/nccd-php>

Mission

The mission of the NCCDPHP is to lead efforts that promote health and well-being through prevention and control of chronic diseases.

The strategic priorities are:

- Focus on well-being: Increase emphasis on promoting health and preventing risk factors, thereby reducing the onset of chronic health conditions.
- Health equity: Leverage program and policy activities, build partner capacities and establish tailored interventions to help eliminate health disparities.
- Research translation: Accelerate the translation of scientific findings into community practice to protect the health of people where they live, work, learn and play.
- Policy promotion: Promote social, environmental, policy and systems approaches that support healthy living for individuals, families and communities.
- Workforce development: Develop a skilled, diverse and dynamic public health workforce and network of partners to promote health and prevent chronic disease at the national, state and local levels.

NCCDPHP supports a variety of activities that improve the nation's health by preventing chronic diseases and their risk factors. Program activities include one or more of our major functions: supporting states' implementation of public health programs; public health surveillance; translation research; and developing tools and resources for stakeholders at the national, state and community levels.

National Association of Chronic Disease Directors (NACDD)

Centers for Disease Control and Prevention

2872 Woodcock Blvd., Ste. 220
Atlanta, GA 30341
(770) 458 7400

<http://www.chronicdisease.org>

NACDD is a national public health association founded in 1988 to link the chronic disease program directors of each U.S. state and U.S. territory to provide a national forum for chronic disease prevention and control efforts. Since its founding, NACDD has

made impressive strides in mobilizing national efforts to reduce chronic diseases and associated risk factors. NACDD activities help support state efforts by:

- Providing educational and training opportunities for our members.
- Developing legislative analyses, materials, policy statements and other resources.
- Educating policymakers about the importance of funding for state chronic disease prevention and control efforts.
- Providing technical assistance and mentoring to state public health practitioners.
- Developing partnerships and collaborations with public health and scientific communities, health care providers, federal agencies, universities and the private sector to pursue common goals.
- Advocating for the use of epidemiological approaches in chronic disease services planning and chronic disease data.

NACDD's councils, interest groups and work groups - Arthritis, Breast & Cervical Cancer, Cardiovascular Health, Comprehensive Cancer, Diabetes, Health Disparities, Healthy Aging, Obesity, Osteoporosis, Physical Activity, Physicians, School Health, Tobacco Control Network, Vision & Eye Health and Women's Health - address the unique needs of specific chronic diseases to advance prevention and control efforts in those areas and professional development for chronic disease staff with common program interests.

For further information, go to:

<http://www.chronicdisease.org>

Ohio Department of Health, Violence and Injury Prevention Program

– Debra Seltzer, Administrator

SEXUAL ASSAULT AND DOMESTIC VIOLENCE PREVENTION PROGRAM:

Debra Seltzer, Program Administrator

(614) 728-2176 – Debra.Seltzer@odh.ohio.gov

Jenelle Adkins, Program Executive Secretary

(614) 644-7854 – Jenelle.Adkins@odh.ohio.gov

Joyce Hersh, Women's Health Coordinator

(614) 728-4885 – Joyce.Hersh@odh.ohio.gov

Beth Malchus, Rape Prevention Coordinator

(614) 466-8960 – Beth.Malchus@odh.ohio.gov

Amanda Suttle, Rape Prevention Coordinator

(614) 644-7618 – Amanda.Suttle@odh.ohio.gov

INJURY PREVENTION PROGRAM:

Christy Beeghly, Program Administrator

(614) 728-4116 – Christy.Beeghly@odh.ohio.gov

Trina Dickerson, Customer Service Specialist

(614) 728-2958 – Trina.Dickerson@odh.ohio.gov

Kara Manchester, CFI Researcher

(614) 466-8437 – Kara.Manchester@odh.ohio.gov

Ed Socie, Injury Epidemiologist

(614) 466-0289 – Ed.Socie@odh.ohio.gov

Gwen Stacy, Injury Prevention Program Consultant

(614) 995-1428 – Gwen.Stacy@odh.ohio.gov

Judi Moseley – Injury Prevention Program Consultant

(614) 728-8016 – Judi.Moseley@odh.ohio.gov

Women's Health Program Web Site: http://www.odh.ohio.gov/pdhPrograms/hpr/wom_hlt/sadvhlth.aspx