



Highlights

of the

CDC/ATSDR's

Approach to

Women's Health

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Better Health for All Women

Just as there is no one type of woman, there is no single strategy for promoting good health among women. The Centers for Disease Control and Prevention and its Office of Women's Health support a wide range of programs that address the health needs of women from various racial, cultural, ethnic, and socioeconomic backgrounds. Whether it's researching how to increase mammogram usage among certain populations, increasing cardiovascular disease preventive behaviors, or promoting safer sex practices among at-risk women, we are constantly looking for new and innovative ways to speak to all the women we serve.

Some of these projects involve improving preventive care for women who might not otherwise have access to such programs. One educational project, developed for Native American women in Washington, teaches everything from overcoming depression to gardening as complements to diabetes management. We support many programs to increase screening for breast and

In all of our efforts, we seek to understand how we can best speak to women. In the African American community, for instance, the church plays a central role in many of its members' lives and can be a wonderful resource for conducting outreach programs. In many different ways, in communities all across the country, our partners are working with local churches. In Arkansas, there's The Witness Project, a program that recruits breast cancer survivors to give testimony to African American churches and community groups, sharing messages of empowerment and education. In North Carolina, we're working with urban church ministers to educate minority women on cardiovascular disease preventive behaviors via a series of workshops, exercise classes, and church-sponsored weekend retreats.

Just as there is no one model for all women, there can be no one model for all of women's health. We must explore a range of strategies and tactics to reach a variety of women





Introduction

As the Nation's prevention agency, the Centers for Disease Control and Prevention (CDC)* actively protects America's health and safety, enhances health decisions through credible information, and promotes health through strong partnerships. CDC recognized that many aspects

of women's health could be enhanced by public health programs and created the Office of Women's Health (OWH) in 1994. Virtually all of CDC, along with sister agency, the Agency for Toxic Substances and Disease Registry (ATSDR), is working to understand factors that

At OWH, we work to promote healthful behaviors and practices by all women, across all the stages of their lives. Among other things, for all ages we want to encourage routine and appropriate physical activity, good nutritional habits, safe sexual choices, no tobacco use, and healthy development and aging. We collaborate within CDC to develop programs and strategies to address issues that relate to a woman's health. We also work with partners

influence a woman's health.

Leadership. As the focal point for all women's health issues at CDC, OWH presents a united message from CDC on issues related to women's health. We also provide a forum for CDC staff to meet and collaborate on issues pertaining to women's health.

outside CDC—health agencies, nonprofit and business

organizations, and state and local health departments,

among others. Our role has three components:

Advocacy. We work both within and outside CDC to raise awareness about areas of women's health and to promote activities that will improve the health of all women. We believe that all women—including those who are often inadequately served or overlooked—deserve to be recognized and included in the work of public

health. We also advocate that women's health issues be given an equitable share of public health attention and funds.

Communication. OWH is CDC's central source of information on women's health. CDC produces materials to inform women, public health practitioners, workplace health and safety professionals, and health care providers about matters related to women's health. We participate in promotional campaigns to encourage healthful behaviors by women and in educational campaigns to show how certain detrimental health conditions can be prevented.

This booklet highlights CDC's and ATSDR's approach to women's health issues. It discusses the key issues that affect women at each stage of life, from puberty through the end of life, and briefly describes CDC/ATSDR's work to address these issues. As you will see, much of the work focuses on preventing disease, injury, and disability. OWH's main message is that—working together, over time—many of the diseases, injuries, and disabilities experienced by women can be prevented.

Prevention Works For Women.

*References to CDC also apply to ATSDR.

Preventing Birth Defects

Many of CDC's women's health projects address issues that are universal to all women—not just in America. For instance, in 1992 the U.S. Public Health Service recommended that all women capable of becoming pregnant take 400 micrograms of the B-vitamin folic acid daily. This can prevent up to 75% of neural tube defects, the most common disabling birth defects. Since that time, CDC and a range of nonprofit and private-sector partners have launched a national campaign encouraging all women who could become pregnant to take folic acid every day. But efforts are not limited to this country.

CDC is also sponsoring a nationwide study in China to evaluate the effectiveness of folic acid in reducing neural tube defects among its population, which has a high incidence of that condition. Working with partners abroad, CDC arranged to begin a program in which women in a variety of communities were given folic acid education and folic acid supplements when they registered for their marriage licenses: what better time to begin thinking about the family you may have one day and to begin preparing for what the future may hold? Preliminary results have been extremely encouraging, indicating a significant reduction in neural tube defects among the selected population.

All the Stages of Our Lives Highlights of the CDC/ATSDR's Approach to Women's Health

As recently as ten years ago, public dialogue on women's health issues focused primarily on one theme: women need mammograms. This is true, of course; women do need mammograms. Yet, we cannot stop there. To truly have an impact on women's health, we must ask questions that address every aspect of a woman's life. Does a young girl play sports? If she does, she's more likely to have good

physical and psychological health. Does a young adult woman get regular screenings for cervical cancer? If so, cervical cancer can be prevented from developing almost 100% of the time. The lifelong interaction between a woman and her environment, cultural and social influences, personal and familial responsibilities, psychological and physical characteristics and lifestyle choices—these are true indicators of how healthy a woman's life can be.

When Dr. David Satcher, former head of CDC and ATSDR, established the Office of Women's Health in 1994, he recognized the need to look at women's health from a holistic standpoint. Today we are continuing with that theme: women's health is best explored not as a series of isolated medical conditions but in terms of all the factors that affect a woman's health and quality of life throughout her lifespan. We see a woman whose life is changing on every level. She's living in a different family structure than her mother did; she's marrying later, if at all; she's more likely to be the sole head of a household; she's working; she's getting older; and she's living longer. We consider women's health as encompassing all functions that relate to women's mental and physical wellness from puberty through old age, the factors that affect wellness, and the activities and behaviors that promote it.

Childhood and Setting Patterns for a Lifetime **Adolescence**

By the time a young girl enters kindergarten, she may

display some of the personality traits that she will carry throughout her life: an aptitude for math, a hot temper, a sharp wit. Likewise, it is at a very young age that a child develops the habits and behaviors that will influence her overall healthiness throughout her life. Yet all of her choices, including her health choices, are still ahead of her. It is perhaps with the young girl that we can have the most impact, by giving her the information, guidance, and resources that she needs to make the choices that will lead to a healthy life.

Take the question of exercise and smoking, for instance. Research shows that if a girl participates in interscholastic sports, she will be much less likely to smoke

> cigarettes. Smoking decreases substantially with the number of sports played.

> > Regardless of socioeconomic status, parents may have the best intentions but might not know what information to pass on to their daughters. As a result, all girls are not empowered to make good choices. She may not have access to birth control and Pap tests and may not practice abstinence. She may not have the self-confidence

necessary to get out of a bad relationship, and she may not have the support system to discourage her from smoking. A girl is more likely

to be poor as a young adult if she begins having children during adolescence.



One of CDC's priorities is supporting and promoting programs that help empower girls to make strong and healthy choices in their lives. A few of these collaborative projects are listed below.

- The Benefits of Sports: Recognizing the positive impact of sports participation, CDC is working to encourage sports among youth ages 12 to 17 to discourage smoking tobacco. Some components of this project specifically target high school girls, a group that is particularly at risk.
- Preventing Teenage Pregnancies: Teenage pregnancy rates are particularly high in the inner cities, and CDC is part of a community coalition program working in 13 communities with high rates of teenage pregnancy. By providing technical assistance and financial support, CDC can help youth development organizations and communities develop effective programs for reducing this serious problem.
- Gender Differences in Teen Smoking: A CDC research project is examining the racial and gender differences in teen smoking to better understand why youth choose to use or not use tobacco, and the study explores the different motivators for tobacco use between girls and boys and between African Americans and whites. This will make us more effective in developing successful smoking prevention programs for these target populations.
- Different Determinants in Sexual Behavior: CDC researchers are examining the different determinants of high-risk sexual behavior among adolescents. The study will explore the familial, cultural, peer, and environmental factors in promoting or deterring risky sexual practices.





Woman in Her Prime

The Weight of the World While the young girl and the adolescent are making their choices

under the direction of parents, teachers, and other authority figures, the young woman is moving out into the world on her own. For the first time, she is taking full responsibility for all her choices, out from under her parents' wings, outside the boundaries of the classroom doors. Once upon a time, this young woman's path was pretty well defined: she was expected to marry quickly, to start her family young. As recently as 1960, more than half of women younger than 25 had at least one child, and most of these women stayed home with their children.

This is no longer true. The picture of the modern woman is one with a world of responsibilities: raising children, supporting herself and her family, and dealing with the demands of career as well as family. The number of women ages 25 to 29 who have never had children has doubled from 20% to over 40% in the last 30 years. For the first time, the majority of women older than 16 are in the work force. More than 15 million households are headed by single women, two-thirds of whom also work.

Some women have a strong support system: economic resources, the benefits of education, the social power to demand fair job conditions, and the familial support to share child-rearing and domestic responsibilities. These women are more likely to have the time, money, and emotional energy to spare for health concerns: practicing regular exercise programs, putting together healthy meals every day, visiting the doctor regularly, and getting effective and timely prenatal care.

But millions of women do not have the strong support system they need to practice healthy preventive behaviors. It's scary to speak up about workplace hazards when you are worried about keeping your job. It's hard to set aside three hours a week for exercise when you're working two jobs and raising your kids alone. It's difficult to get effective prenatal care when you can't take time off from your job or pay your bills. It's tough to find the emotional energy to quit smoking when you feel like the nicotine is all that gets you through the day.

This is where we try to help. CDC is supporting dozens of programs dedicated to helping women take control of their health. CDC works with partners such as urban church ministers, local colleges, and public and private agencies, in order to develop effective strategies for helping women make healthy choices for themselves and their families. Examples are given below.

• Effectiveness and Acceptability of the Female
Condom: The incidence of HIV among women in the
United States continues to increase and is dramatically
higher among young African American women than
among white women. In 1997, among African
American women ages 25 to 44, it was a leading cause of
death. To help women take control of their sexual safety,
CDC is examining the effectiveness and the acceptability
of the female condom and researching and developing
topical microbicides that can kill HIV and the pathogens
that cause STDs.

• **Support Groups as a Prevention Tool:** HIV prevalence among women is also higher in urban environments, and CDC is evaluating the effectiveness of support groups as a tool for preventing HIV infection and

encouraging better treatment among infected women in three major metropolitan areas.

- Reducing Workplace Musculoskeletal Injuries: Women suffer from 63% of all work-related repetitive motion injuries. But simple interventions may reduce the risk. For example, CDC has found that hourly rest breaks in keyboard-intensive work can significantly reduce musculoskeletal discomfort without reducing productivity.
- Preventing Workplace Violence: Forty-two percent of women who die from injuries in the workplace are victims of homicide. The majority of these women are employed in retail trade and service industries. CDC has been working to raise awareness of the risk factors and prevention strategies for workplace violence.



New Science, New Choices

New technology and scientific advances offer exciting new opportunities to maintain good health. But they raise new questions as well. For millions of women nearing mid-life, deciding whether to use hormone replacement therapy (HRT) has become a central health issue. HRT has wonderful benefits. It can protect women against osteoporosis and possibly heart disease and relieve menopause symptoms; it might also protect against memory loss. However, it might increase breast cancer risk, and estrogen without progestin can increase the risk of endometrial cancer. There is no one recommendation for HRT because every woman is different, with her own unique set of needs and risk factors. CDC is working to ensure that women have the information they need to make informed choices on all the new health options that science makes available.

- Preventing Intimate Partner Violence: Violence against women continues to increase; about 2 million women annually are abused by their male partners or cohabitants. Incidence is particularly high in some minority populations; among African American women ages 15 to 24, homicide is a leading cause of death, and 53% of Hispanic women are physically assaulted in their lifetime. CDC funds prevention programs in communities so that community-based and other nonprofit organizations can develop and evaluate violence prevention efforts.
- Improving Pregnancy Outcomes: African American women are much more likely than white women to die of serious complications from pregnancy. An ongoing CDC study is examining the social, cultural, and

political context of life for African American women that might be affecting their pregnancies.

• Reducing Unplanned
Pregnancies: More than 30%
of all births nationwide are
unintended. Unplanned
pregnancies are linked to lower birth
weight, less prenatal care, fetal drug
exposure, and poor child
development. CDC is working
to identify risk factors and is
developing programs to
reduce the rate of
unwanted pregnancies.

A Woman's Shifting Tides **Mid-Life**

The woman in mid-life may find herself going through changes: if

she had a family when she was young, her children might be leaving home, and her priorities shift accordingly. She may divorce or remarry, perhaps moving into a new household. She may be giving up old responsibilities as her children go out on their own; and she may be taking on new ones, such as caring for an aging parent or re-entering the workforce. In mid-life, a woman also begins to notice physical changes. She is still vibrant and healthy, but muscles may ache more than they once did after a long day's work, and knees may creak when she gets up on a cold winter morning. About 34% of these women have high blood pressure, and nearly a third have mild symptoms of arthritis. In small, nearly unnoticeable ways, the woman's body will begin to request more of her attention.

printed facts to broadcast media to the Internet—CDC is working to assure that women have the information they need to be knowledgeable about their health.

- Cultural Differences in Health Practices: Data show ethnic and cultural variation in attitudes towards such mid-life issues as hysterectomy, surgical menopause, and hormone replacement therapy. CDC supports academic research to survey community, family, and individual knowledge, attitudes, experiences, and practices that may influence women's decision-making in these health situations.
- Preventing Cardiovascular Disease: In every age group, African American women are more likely to die of heart disease and stroke than are white women. CDC is working with urban church ministers in a program to make

African American women more aware of cardiovascular disease preventive behaviors; exercise, nutrition, and tobacco cessation are among the topics that are discussed in workshops and weekend retreats.

Populations: African American women have lower cancer survival rates than white women. CDC is pursuing a number of programs designed to examine the risk factors that affect the detection and survival rate of African American women with cancer.

• Better Screenings for Specific



• Increasing Physical Activity: Minority women engage less regularly in physical activity than white women. CDC is working in partnership with the Saint Louis University Prevention Research Center to examine the different determinants in physical activity among African American, Hispanic, and American Indian women. Sedentary lifestyle is associated with the development of diabetes and other chronic conditions.

As her life and her body change, the woman in mid-life will begin to address issues that are new to her, and CDC is working to ensure that she is able to make educated decisions about what is right for her. She may make lifestyle adjustments to control such chronic conditions as cardiovascular disease or diabetes, and she may need to make informed decisions on whether to take hormone replacement therapy. This woman needs support and information to make the best choices for herself.

> The CDC is working to provide accurate and useful information to the woman in mid-life on many health issues. Using many modes of communication—from



Searching for the Origins of a Painful Disease

In the United States alone, five million women could tell you, from first-hand experience, what a serious health problem endometriosis can be. This disease, which occurs when tissue from the uterus gets into other parts of the body and begins to bleed, can be extremely painful. It can cause scar tissue, bowel problems, and lead to infertility. Scientists estimate that 10% to 15% of women in their reproductive years, are affected by this condition, for which there is no known cause or cure.

Recent research has suggested that certain environmental factors may help contribute to the onset of this disease. In the belief that understanding the origin is the first step to developing a cure, CDC is pursuing research that will evaluate women's exposure to certain environmental compounds that might be associated with endometriosis.

• Tobacco's Effects on Women: As they age, smokers are more likely to suffer from smoking-related illnesses. Women who smoke have increased risk of cardiovascular disease, stroke, cancer, and respiratory disease. Women who smoke are more at risk of dying from bronchitis and emphysema than men. CDC is evaluating the different effects of nicotine dependence on women versus men and their ability to quit smoking.

If a woman lives into her eighties, other changes may take place, such as incontinence, that may complicate her everyday life. Obstacles around the home that once were hardly noticed may now become unsafe. Good health may no longer be something these women take for granted.

This is not to imply that most women older than 65 are in declining health. In fact, now more than ever, the opposite

is true. Health issues for women older than 65 are no longer about prolonging life, but about continuing to live life to the fullest. Women older than 65 think about their health, but they do not want their lives to revolve around it: 56% of women older than 75 have arthritis, for instance, but 15% claim that it limits their activity in any way. They play tennis, garden, take classes, raise grandchildren, and still run their households. The healthy mature woman of the 21st century is dedicated to maintaining the active, invigorating life she has pursued thus far. With good prevention strategies, this is something she can certainly do.

The Mature Woman

Older, Wiser, and Still Having Fun The mature woman continues to see changes in her body, and as she

ages, the changes become more pronounced. About one-third of women over 65 have heart disease, and many have problems with hypertension. Nearly two-thirds of women between 60 and 69 have low bone density, dramatically increasing their risk of breaking bones in a fall. Many women older than 65 will experience some health problems at some point in their lives. Some are living with diabetes or Parkinson's disease. They may be cancer survivors, or have had ulcers or a hysterectomy.



Preventing Falls in the Home

For millions of older Americans, falling is a serious health risk. Thirty percent of people older than 65—the fastest growing segment of the U.S. population—fall every year; for people older than 80, this rate increases to 40%. For older adults with osteoporosis, falls can result in devastating injuries such as hip fractures. Approximately 240,000 hip fractures occur each year among women, and about 90% of these injuries are sustained by women 65 years and older. Only half of older adults who are hospitalized for hip fractures are able to live independently after their injuries. The good news is that these injuries can be largely prevented with a few basic strategies.

Women can do a number of things to reduce their risk of falling. One of the most effective prevention strategies is exercise that focuses on improving strength, balance, and coordination. Programs can be tailored to people of different physical abilities. Another strategy focuses on making changes to the home environment, where approximately half of all falls take place. It's also important to have health providers review all medications to reduce side effects and drug interactions.

These are just a few of the strategies being developed by CDC. For long-term efforts, CDC has established the National Resource Center on Aging and Injury at San Diego State University. The Resource Center will collect, organize, and disseminate injury prevention information to health care professionals, caretakers, and other individuals concerned about reducing injuries among older Americans.



Women Need Vaccines, Too

Traditionally, a great deal of emphasis is placed on the importance of childhood immunization. School entry immunization requirements and increased efforts to ensure immunization of the Nation's preschool population have resulted in record high childhood immunization levels and the lowest incidence of vaccine-preventable diseases ever. However, immunization is equally important for adolescents and adults. In particular, vaccines play an important role in protecting individuals who are sexually active, women of childbearing age, and older adults. CDC promotes various programs that work to ensure healthy women through immunization.

Healthy Pregnancies and Prevention of Birth Defects Immunizing women of childbearing age ensures healthier pregnancies and prevents birth defects resulting from diseases such as rubella, measles, mumps, or varicella.

Women With Chronic Health Conditions and Certain High-Risk Behaviors

Women with a variety of different health conditions, behavioral practices, or occupational risks (such as health care workers and some public safety workers) are particularly susceptible to certain vaccinepreventable diseases such as hepatitis B, which can cause serious liver damage or even death. For example, women with multiple sexual partners, women who have been diagnosed with an STD, and women who choose to inject street drugs should be vaccinated against hepatitis B. Those women who are from hepatitis B-endemic countries should be screened, and if they are chronically infected, household members should be vaccinated. Women who have diabetes, asthma, or other chronic conditions should get vaccinated against pneumonia and annually against influenza.

Mature Women

Older women are more likely than younger women to have serious complications, or even die, from influenza (the winter flu). In 1997, for women 65 and older, influenza/pneumonia was the fifth leading cause of death. Influenza is primarily preventable with a simple "flu shot," but the majority of older women do not get this vaccine. Mature women should also get vaccinated with the pneumococcal polysaccharide vaccine to prevent pneumococcal pneumonia.

- Good Health Care: The fact is that many of the conditions that cause the most mortality among mature women in the United States can be prevented or controlled if women have access to and receive highquality prevention and health care services. Mature women could benefit tremendously from prevention services: help in controlling diabetes, for instance, or taking estrogen or other medications to prevent bone loss, or getting treatment for high blood pressure before it results in heart attack or stroke. However, elderly women are actually less likely to have good access to quality health care than younger women. Retired, divorced, or widowed, often living alone, the elderly woman frequently does not have the same income level or health insurance that a younger woman does. CDC is working on programs to understand and improve how mature women access health care.
- Controlling a Common Problem: Osteoarthritis is one of the most common ailments that affect quality of life among the older population. It can be largely controlled, and its progress significantly slowed, with proper diet and exercise programs. CDC is involved in a number of programs that target osteoarthritis preventive strategies among minority and lower income women.

families. Followup studies now being planned will provide information on the potential long-term health effects of lead exposures on women throughout the life cycle.

Conclusion

When the Office of Women's Health was created in 1994, its

original mandate was "to focus on the most significant health issues faced by women at every stage of their lives." As times change, the health issues that are most important to women will also continue to evolve. The dialogue between all the forces that work for women's health—the Government, private industry, the public, the media and the woman herself—is an ongoing, constantly evolving process. Our role is to help provide the leadership, advocacy, and communication needed so that women are provided with the information and support they need to prevent diseases, injuries, and disabilities through all the stages of their lives.

Prevention Works for Women.







Throughout the stages of our lives...

From cigarette smoking to dry cleaning solutions, environmental exposures to potentially hazardous substances at home, at work, and at play occur throughout the lifespan—from in utero to postmenopause. Hormonal interactions are different during prepuberty, puberty, adulthood, pregnancy, perimenopause, and menopause. As a result, responses to chemical contaminants in the air, water, and soil can vary accordingly. These exposures may have both cumulative and synergistic effects. Their combined consequences may be seen at various points and may impact the quality of a woman's life.

Recent research by CDC has found that mature women who were occupationally exposed to lead had decreased bone density and earlier onset of menopause. Another study of young adults who were exposed to lead during childhood found poorer neurologic function, higher rates of infertility, and increases in blood pressure. As the population ages, the impact of these exposures will increasingly affect the lives of those exposed and their

For More Information

This booklet is intended as an introduction to the work of women's health and the **Office**

of Women's Health within CDC. For more information, please e-mail us at owh@cdc.gov, visit our Web site at http://www.cdc.gov, or contact us by telephone at (404) 639-7230 or by fax at (404) 639-7331.

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