Executive Summary

Improving the health status of women will require improved use of preventive health care services and health care behaviors. Understanding the current status of women’s health and aspects of women’s health care experience in the United States can help clinicians take steps to expand utilization of preventive services and to empower women to make better and more informed choices about their health.

This overview examines data on selected conditions influencing women’s morbidity and mortality, discusses disease prevention and detection, and presents recent guidelines. The topics covered were selected primarily on the basis of their prevalence among women, and the important role of early detection and prevention in influencing the health status of women. Following an Introduction in Section I, the topics highlighted are organized as follows:

SECTION II: DISEASES AND CONDITIONS – Cardiovascular disease, breast and cervical cancer, diabetes, mental illness and depression, osteoporosis and obesity.

SECTION III: HEALTH BEHAVIORS – Diet and nutrition, physical activity and cigarette smoking.

SECTION IV: SPECIAL ISSUES – Issues related to prenatal care and sexually transmitted diseases.

Each of these sections includes recommendations for prevention techniques or guidelines for screening taken from sources such as the Institute of Medicine (IOM), the Surgeon General’s office and the United States Preventive Services Task Force (USPSTF). (A brief overview of the USPSTF is presented in Appendix A.) The final section of the paper includes a discussion of selected initiatives in women’s health and Appendix B provides a resource table for further information on various health prevention programs.

II. Diseases and Conditions
As noted above, several diseases and conditions are described in Section II of the paper. Highlights of each of the diseases and conditions discussed are provided next.

CARDIOVASCULAR DISEASE (primarily heart disease and stroke) is the number one cause of death among women in the United States, yet key risk factors for cardiovascular disease – hypertension, high cholesterol, being overweight, smoking and lack of exercise – are all conditions that may be modified through health behaviors. Due to the asymptomatic nature of hypertension and high cholesterol, women may not be aware that they are at risk for cardiovascular disease, therefore screening for these conditions is important.

BREAST AND CERVICAL CANCER are among many cancers that affect women, and are addressed here because of the impact of screening in preventing breast and cervical cancer deaths (lung cancer is the leading cause of cancer deaths among women). Early detection via mammography is the best approach to preventing death due to breast cancer and is estimated to reduce breast cancer mortality by 20% to 30%. Mortality from cervical cancer occurs when the cancer is detected in the late stages. Early detection through adherence to recommended screenings guidelines and follow-up could essentially eliminate cervical cancer deaths.

DIABETES is the sixth leading cause of death among women, and the disease can have debilitating complications. Women are more likely than men to have diabetes, and prevalence among women increased by approximately one-third in the 1990s and continues to rise. While management of the disease can prevent disability and death, an estimated one-third of diabetes cases remain undiagnosed.

MENTAL ILLNESS AND DEPRESSION affect women disproportionately. Depression is the most common form of mental illness, and researchers suggest that major depression is comparable to heart disease and cancer as a cause of disability. Primary care physicians treat the majority of depression cases, yet it is estimated that they fail to diagnose about one-half of all cases.

OSTEOPOROSIS is the most common bone disease and is four times more likely to affect women than men. The disease disproportionately affects women because estrogen protects against bone loss, and women experience a loss of estrogen as they age. Clinicians have an important role in counseling...
women of all ages about how to protect themselves from this potentially debilitating condition.  

**OBESITY AND OVERWEIGHT STATUS** is associated with multiple diseases and preventable causes of death. The proportion of women that are overweight has been increasing for several decades. Some experts believe that obesity in the United States is the most important modifiable health problem for women behind smoking.  

Research has demonstrated that clinician counseling for obesity among women successfully leads to weight loss.  

**III. Health Behaviors**

Healthy behaviors can prevent or delay morbidity and mortality from many major preventable diseases and conditions. Lack of exercise, poor diet and smoking are all associated with illness and premature death. Compared with men, women are less likely to exercise at recommended levels and are less likely to eat a balanced diet. Although a higher proportion of men than women smoke, smoking among teenage girls is increasing and nearly all women who currently smoke started smoking as teenagers. Clinicians can play an important role in counseling on health behaviors. While research on diet and exercise counseling is limited, the evidence is strong that smoking cessation interventions by clinicians are highly effective.  

**IV. Special Issues**

**PRENATAL CARE** has been shown to decrease the likelihood of preterm births and low birth weight babies, yet approximately 15% of births in the United States are to women that did not receive prenatal care in the first trimester. Prenatal care is important to protect against unhealthy behaviors, such as alcohol, tobacco and illegal substance use during pregnancy, which can result in poor outcomes and have associated estimated health care delivery costs of over $10 billion annually.  

**SEXUALLY-TRANSMITTED DISEASES (STDs)** are the most common reportable diseases in the United States, and chlamydia and gonorrhea are the most prevalent STDs. Women have more frequent and more serious complications from STDs than men, and their impact can be costly and irreversible. Screening women for chlamydia and gonorrhea is particularly important because most infected women are asymptomatic and may be unaware that they have the disease.  

**V. Programs and Initiatives**

A wide variety of initiatives have been implemented by the federal government, state governments, academia, the private sector, and communities to improve health promotion and disease prevention among women. This paper provides information about a range of selected programs for these sectors that is illustrative of current initiatives related to women’s health. The compilation of programs found in Appendix B is meant to provide health care providers with information about the women’s health programs in existence and offer a resource for contacting the organizations and individuals involved.  

**VI. Conclusion and Future Directions**

We hope that that clinicians will use the recent guidelines, the resources for further information, and the data in this paper on the status of women’s health to address women’s health needs. Clinicians play a critical role in educating and motivating women to follow recommendations for preventive care and health behaviors. In promoting improved preventive health behaviors, it is important to recognize that women in particular interact with a variety of providers, thus all types of providers need to be involved in their care. Although important and credible evidence-based recommendations exist for screening and counseling on behavioral interventions, this paper highlights the need for more research and calls on clinicians to be involved in primary care research and to contribute to the body of scientific knowledge on which evidence-based practice recommendations are made.
Women with insurance are more likely to receive preventive services than women who lack insurance, and women are more dependent than men on public insurance for access to care.
II. Diseases and Conditions

A. Cardiovascular Disease
Cardiovascular disease is the number one cause of death and disability among women in the United States. The most prevalent forms of cardiovascular disease are heart disease and stroke. Heart disease, considered to be a largely preventable condition, has long been viewed as a disease mainly affecting men and has only recently gained attention as an important women’s health problem. Heart disease and stroke share major modifiable risk factors, including hypertension, high blood cholesterol, smoking and being overweight. Physical inactivity and diabetes are additional modifiable risk factors for heart disease. Heart disease primarily affects older, post-menopausal women, and the disease develops about 10 years later in women than in men. The estimated annual health care expenditures for treatment of heart disease and stroke in the United States are $209 billion and $28 billion, respectively.

Risk Factors
HYPERTENSION is the most important risk factor for stroke and is also an important risk factor for heart disease. It is estimated that 29% of adult women have hypertension. Hypertension rates have increased by about 8% over the past decade, attributable to the aging of the population and the growth in overweight and obese individuals. Women under age 65 have slightly lower rates of hypertension than men, while women age 65 and over have higher rates. African American women are most likely to have hypertension (34%), compared to Mexican American women (22%) and non-Hispanic white women (19%). Although three out of four women with hypertension have been diagnosed by their provider, fewer than one in three are successfully taking steps to control it.

HIGH CHOLESTEROL is another key risk factor for heart disease and stroke. Over 45% of women age 20 and older have high cholesterol levels. The proportion of women with high cholesterol is fairly constant across racial/ethnic groups: 43.7% for non-Hispanic white women, 41.6% for African American women and 41.6% for Mexican American women. Cholesterol levels in women generally increase after age 20 and increase rapidly after age 40, often until age 60.

SMOKING is a major cause of coronary heart disease among women, and the risk of disease increases with the number of cigarettes smoked and the duration of smoking. Risk of heart disease is substantially reduced within one or two years of smoking cessation. This immediate benefit is followed by a more gradual reduction in risk, which approaches that of nonsmokers 10 to 15 or more years after cessation. (See Section III.C)

PHYSICAL EXERCISE lowers the risk of many diseases, such as heart disease, diabetes, osteoporosis and hypertension. However, less than 30% of women engage in the recommended levels of physical activity that results in these (and other) health benefits. (See Section III.B)

OVERWEIGHT AND OBESITY put a strain on the cardiovascular system and are important risk factors for heart disease and stroke. (See Section II.F for more information).

DIABETES is a more common cause of heart disease among women than men. The prognosis of heart disease among those with diabetes is worse for women than for men; women have poorer quality of life and lower survival rates. Approximately one-third of women with diabetes are undiagnosed. (See Section II.C)

Prevalence. The age-adjusted prevalence of heart attack and stroke among adult women in the United States shows considerable variation by gender and race. The prevalence of heart attack among women is 3.3% for African Americans, 2.0% for non-Hispanic whites and 1.9% for Mexican Americans. The prevalence of stroke among women shows a similar pattern by race: 3.2% for African Americans, 1.5% for non-Hispanic whites and 1.3% for Mexican Americans.

Morbidity and Mortality. Over the past two decades the death rate attributable to heart disease for women has declined. Currently approximately 30% of deaths among women are due to heart disease (see Figure 1). Heart disease is the leading cause of death among non-Hispanic white, African American, Hispanic, and American Indian/Native women and is the second leading cause of death among Asian/Pacific Islander women. As shown in Figure 2, non-Hispanic white women are more likely to die from heart disease than other ethnic/racial subpopulations. However, African American women tend to die at a younger age and have the highest rate of death after age-adjustment.

Females generally have poorer outcomes following a heart attack than do males: 44% die within a year, compared to 27% of males. At all ages, women are more likely than men to experience death after a heart attack – among older persons, females who have a heart attack...
are twice as likely as males to die within a few weeks.\textsuperscript{44} Complications are also more frequent in females than in males after coronary intervention procedures.\textsuperscript{45}

Cerebrovascular disease (stroke) is the third leading cause of death for most racial/ethnic groups of women, with the exception of American Indian/Alaskan Native women, for whom it is the fifth leading cause of death.\textsuperscript{46} Non-Hispanic white women have the highest rate of death from stroke, as seen in Figure 2, although after age-adjustment it is highest among African American women. Stroke death rates have declined the last two decades, a factor mainly due to improvements in the detection and treatment of hypertension.\textsuperscript{47}

**Recommended Practices.** Screening for hypertension and high blood cholesterol, key modifiable risk factors for heart disease and stroke, is important because conditions are often asymptomatic and women may be unaware they have the condition.\textsuperscript{48} Recent recommendations by the USPSTF on screening for conditions related to cardiovascular disease are presented in Table 1.

Clinicians have an opportunity, in addition to screening for hypertension and blood cholesterol, to assess and counsel individuals on improved diet, exercise and weight loss, and on smoking cessation to prevent heart disease. Each of these topics is discussed in the section on health behaviors (III.A-C), and additional program resources are available in Appendix B.
B. Breast and Cervical Cancer

Though women suffer from numerous forms of cancer, this discussion is limited to breast and cervical cancers because of the important role of screening in preventing deaths from these cancers. The annual medical treatment costs for breast cancer in the United States are an estimated $7 billion, and those for cervical cancer are approximately $2 billion.49

Breast Cancer

Risk factors. The most significant risk factor for developing breast cancer among women is age; other factors thought to be associated with breast cancer include early menarche, late menopause, delaying childbirth until after 30 or not bearing children. Research suggests that long-term use of oral contraceptives may increase the incidence of pre-menopausal, but not post-menopausal breast cancer; and that obesity increases the risk of post-menopausal, but not pre-menopausal breast cancer.50 Family history of the disease is also a risk factor – about 10% to 14% of breast cancer is hereditary.51 However, eight out of nine women who develop breast cancer do not have a mother, sister or daughter with the condition.52

Prevalence. Breast cancer is the most common form of cancer among American women and has the highest incidence of all cancers among women with an estimated 200,000 new cases diagnosed annually.53 The incidence of breast cancer increased almost 40% from the mid-1970s to the end of the century, an increase likely due in large part to improved screening with mammography.54 As seen in Figure 3, during the 1990s incidence increased slightly, with incidence highest among non-Hispanic white women.55,56

Mortality. An estimated 40,000 women die of breast cancer each year, accounting for approximately 25% of cancer deaths among women and placing breast cancer as the second leading source of cancer death, following lung/bronchus cancer.58 The breast cancer death rate is highest among African American women.59 Deaths due to breast cancer have declined in recent years from 28 per 100,000 females in 1990 to 23 in 1997.60 However, most of this decline has occurred among non-Hispanic white women, while death rates have not declined among other subpopulations.61

Recommended Practices. Because the risk factors for breast cancer do not generally lend themselves to modification, prevention efforts are by definition aimed at prevention of death due to the disease through early detection. Survival rates are much higher if the disease is detected in the early stages.62 The USPSTF recommendations on breast cancer screening are presented in Table 2.

The National Committee for Quality Assurance (NCQA) provides national data on screening for breast cancer in health plans. Between 1996 and 2003, the percentage of women age 52 to 69 that had at least one mammogram in the past two years increased among commercial plans from 70% to 75%. Although comparable trend data are not provided for Medicaid and Medicare plans, the 2003 rates are 56% and 75% respectively.57

Figure 3: Age-Adjusted Malignant Breast Cancer Rates Among Females, by Race/Ethnicity, 1992-2000

as a woman ages. Despite these limitations, early detection via mammography is the best approach to preventing death due to breast cancer and is estimated to reduce breast cancer mortality by 20% to 30%.63

The USPSTF, in its February 2002 recommendations for breast cancer screening, does not discuss other screening methods such as ultrasound, digital imaging, magnetic resonance imaging (MRI) or Positron Emission Tomography (PET) scans. The National Cancer Institute (NCI) notes that ultrasound can be used to see lumps that are difficult to see on a mammogram, however ultrasound is not used for routine breast cancer screening because the technology does not consistently detect micro-calcifications. Studies are being conducted to determine whether MRI is valuable for screening women that are at high risk for breast cancer and also have dense breast tissue.64

Cervical Cancer

Risk Factors. Risk factors for cervical cancer are related to sexually transmitted infection with the human papillomavirus (HPV). Certain high-risk strains of HPV cause cervical lesions, which if left untreated can develop into cancer over time. The key to preventing cervical cancer is early detection of cervical abnormalities, thus screening is vital to identifying, monitoring and treating women to prevent development of invasive cancer.

Prevalence. Cervical cancer is the tenth most common form of cancer among females in the United States, with approximately 12,800 new cases of invasive cervical cancer occurring annually.65 The incidence rate by race/ethnicity is 43, 15, 12 and 8 per 100,000 among Vietnamese,66 Hispanic, African American and non-Hispanic white women, respectively.67 One-half of all new cervical cancers cases are in women who have never been screened, and another 10% are in women who have not been screened in the past five years.68

In 2000, more than 81% of women in the United States reported having had a Pap test in the prior three years.69 According to NCQA, between 1996 and 2003 the percentage of women age 21 to 64 that had at least one Pap test in the prior three years increased among commercial plans from 71% to 82%. While comparable trend data are not provided for Medicaid plans, in 2003, 64% of women age 21 to 64 had a Pap test in the prior three years through Medicaid.70

Mortality. Cervical cancer accounts for about 1.7% of cancer deaths among females, and the cervical cancer death rate is approximately 3 per 100,000 females.71 Each year an estimated 4,600 women in the United States die of cervical cancer, representing about one-third of women found to have invasive cervical cancer. Minority women and women with low levels of education are more likely than other women to die of cervical cancer.72 Increased screening has resulted in a large decline in mortality from cervical cancer over the past few decades. The age-adjusted death rate for cervical cancer, per 100,000 population, declined from 5.6 in 1975 to 2.7 in 2001.73

When cervical cancer is detected in situ, the chances of survival are almost 100%, and when diagnosed in the early stages, survival rates are above 90%. Most detection occurs at the precancerous stage. Mortality rates are high when cancer is detected in the later stages.74

<table>
<thead>
<tr>
<th>Table 2: Breast (2002) and Cervical (2003) Cancer: USPSTF Recommendations on Routine Screening</th>
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</thead>
<tbody>
<tr>
<td><strong>Topic</strong></td>
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<tr>
<td><strong>Breast cancer (2002)</strong></td>
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<td><strong>Cervical Cancer (2003)</strong></td>
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Recommended Practices. Table 2 presents the USPSTF’s 2003 recommendations on cervical cancer screening. This consensus recommendation updates the 1996 recommendation and was adopted by the American Cancer Society, the NCI, the American College of Obstetricians and Gynecologists (ACOG), the American Medical Association, the American Academy of Family Physicians and others. Despite the consensus position, many of the participating organizations independently recommend that screening begin at age 18 or at the start of sexual activity, continue annually for some time, and then occur less frequently in the event of consecutive normal tests. For example, ACOG recommends annual testing up to age 30, with screening options for women age 30 and older (see Table 3).

C. Diabetes Mellitus
Diabetes is the sixth leading cause of death among women in the United States, and slightly more than one-half of the 17 million Americans with diabetes are women. An estimated one million new cases of diabetes are diagnosed each year, and diabetes prevalence increased by almost one-third in the 1990s. Diabetes costs the United States approximately $98 billion annually: $44 billion for direct medical care and $54 billion for indirect costs associated with disability, work loss and premature mortality. Risk Factors.

TYPE 1 DIABETES, which is generally detected in youth, is a condition where the body does not produce insulin. The single major known risk factor is family history of the disease.

TYPE 2 DIABETES generally occurs at older ages and is a condition that results from the body’s inability to produce sufficient (or to properly use) insulin. The main risk factor for Type 2 diabetes is being overweight, which in turn is a function of poor diet and inactivity. Being obese, having a relative with diabetes and minority status are all risk factors for the disease. African American and Hispanic women are more likely than non-Hispanic white women to have diabetes and the rates of diabetes per 1,000 women are 100, 67 and 56, respectively. Compared to women without diabetes, women with diabetes have fewer years of education, lower income levels and lower socioeconomic status.

GESTATIONAL DIABETES, which occurs when pregnant women experience glucose intolerance, has the same risk factors as Type 2 diabetes. Gestational diabetes occurs during pregnancy and ends after child birth, yet approximately one-third of women with gestational diabetes develop Type 2 diabetes in the subsequent five years. Older pregnant women are at higher risk for gestational diabetes than are younger women.

Prevalence.

TYPE 1 DIABETES accounts for 5% to 10% of all diabetes cases. An estimated 86,000 females less than 20 years of age have Type 1 diabetes. Among these, 92% are non-Hispanic white, 4% are African American and 4% are Hispanic or Asian American. Type 2 diabetes is the most common form of diabetes, and accounts for 90% to 95% of all diabetes cases. Approximately 9.1 million women have Type 2 diabetes, comprising over 8% of adult women. Diabetes among women increased by one-third from 1990 to 1998 and is expected to continue to rise due to increasing levels of obesity and the aging of the population. The prevalence of Type 2 diabetes increases with age and is most prevalent among African American women, as shown in Figures 4 and 5. A recent development, due to sedentary lifestyles and poor diet, is the occurrence of Type 2 diabetes among children and adolescents, in which girls are more likely than boys to have diabetes. Since this is a relatively new phenomenon, accurate statistics on numbers of cases are not available.

### Table 3: American College of Obstetricians and Gynecologists’ Cervical Cancer Screening Recommendations (2003)

<table>
<thead>
<tr>
<th>Category</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>First screen</td>
<td>About three years after first sexual intercourse or by age 21, whichever comes first</td>
</tr>
<tr>
<td>Women less than age 30</td>
<td>Annual cervical cytology testing</td>
</tr>
</tbody>
</table>
| Women age 30 and older    | Screening options:  

1. Women who have had three negative results on annual Pap tests can be rescreened with cytology alone every two to three years  
2. Annual cervical cytology testing  
3. Cytology with addition of an HPV DNA test. If both the cervical cytology and the DNA test are negative, rescreening should occur no sooner than three years

GESTATIONAL DIABETES occurs in less than 5% of pregnancies in the United States.\textsuperscript{89}

Morbidity and Mortality. Diabetes accounts for just over 3% of deaths among women.\textsuperscript{89} While diabetes is the sixth leading cause of death among all women, it is the fourth leading cause of death among African American and Hispanic women.\textsuperscript{31} Diabetes is associated with heart disease, stroke, blindness and kidney failure.\textsuperscript{92} The risk of death due to heart disease and stroke is twice as high for diabetics compared to those without diabetes, and over one-half of diabetics have hypertension. Diabetes is the leading cause of end-stage renal disease and accounts for approximately 40% of new cases annually.\textsuperscript{93}

Gestational diabetes is associated with an increased risk of birth defects, but this risk may be eliminated with glycemic control.\textsuperscript{94} Among pregnant women with pre-existing diabetes that do not receive preconception care, 10% of babies are born with major congenital malformations. Among diabetic women that receive prenatal care, however, this proportion drops to between 0% to 5%. Large birth weight occurs two to three times more often among diabetic women than other women, placing diabetic women at increased risk for a cesarean section.\textsuperscript{95}

Recommended Practices. Screening for diabetes is important because an estimated one-third of all diabetes cases are undiagnosed.\textsuperscript{96} Recommendations from the USPSTF and the American Diabetes Association

\textbf{Table 4:} Diabetes: Recent USPSTF and American Diabetes Association (ADA) Recommendations on Routine Screening

\begin{tabular}{|l|l|}
\hline
\textbf{Type 2 Diabetes} & \textbf{Recommendation} \\
\hline
\textbf{USPSTF (2003)} & \begin{itemize}
\item Adult women with high blood pressure or high cholesterol: routinely screen
\item Asymptomatic adult women: no recommendation (insufficient evidence)
\end{itemize} \\
\hline
\textbf{ADA (2003)} & \begin{itemize}
\item Fasting plasma glucose test is preferable to other tests due to reduced cost and convenience for patients; repeat test on separate day for confirmation of results for borderline cases and among those with a negative result where a positive result might be expected
\item Test every three years, shorter interval recommended for high-risk individuals
\end{itemize} \\
\hline
\textbf{Gestational Diabetes} & \begin{itemize}
\item All pregnant women: no recommendation (insufficient evidence)
\end{itemize} \\
\hline
\textbf{USPSTF (2003)} & \begin{itemize}
\item Screen non-diabetic women between the 24th and 28th weeks of pregnancy (except among women less than age 25 of normal weight and with no family history of diabetes)
\end{itemize} \\
\hline
\textbf{ADA (2003)} & \begin{itemize}
\end{itemize} \\
\hline
\end{tabular}

are presented in Table 4. The USPSTF recommends that patients be encouraged to maintain a healthy weight, follow a balanced diet and exercise regularly as these behaviors have been shown to prevent or delay the onset of Type 2 diabetes.97

The Centers for Disease Control and Prevention’s (CDC) National Public Health Initiative on Diabetes and Women’s Health has proposed a number of practices to encourage health care providers to promote risk assessment and quality care for diabetes, including:

- Integrating diagnostic testing for Type 2 diabetes with Pap tests, mammography and other routine procedures;
- Expanding routine physical exams to include risk assessment and appropriate follow-up for diabetes;
- Developing practical screening tools with assessment questions on physical activity and diet; and
- Training of health care professionals in the use of the newly developed tools.98

D. Mental Illness and Depression

Approximately one in five people in the United States is affected by mental illness in any given year,99 and women are much more likely than men to suffer from mental illness.100 Depression is the most common form of mental illness, with more than 19 million adults suffering from it. Major depression is comparable with heart disease and cancer as a cause of disability and is associated with suicide.101 The total annual direct and indirect cost of mental illness in the United States is estimated to be $150 billion,102 with $40 billion attributable to depression.103

Risk Factors. The specific causes of depression are unknown. Reproductive events, minority status, poverty and victimization are all associated with depression. Societal norms that place women in a secondary status and undervalue women’s work may explain why females are at greater risk for depression than males, but this association has not yet been established by research. Risk factors for prenatal depression are similar to those for postpartum depression, and include personal or family history of depression, marital problems, unwanted pregnancy, young maternal age, high levels of stress and insufficient social support.104 Mental illness is often a secondary problem among people with disabilities.105

Prevalence. Approximately 11% of females suffer from mental illness, compared to approximately 6% of males.106 Women are two to three times more likely than men to suffer from anxiety, panic, phobic and eating disorders,107 while men are more likely than women to suffer from schizophrenia and antisocial personality disorder.108,109 Across all age groups, women are more likely than men to experience serious mental illness (see Figure 6). Mental illness is most prevalent among women age 18 to 25.110 An estimated 6% of women experience depression in any given month; an estimated 10% of pregnant women are depressed, and as high as 15% of childbearing women experience postpartum depression. Among those that experience an episode of severe depression, approximately half will experience a second one, and each recurrence increases the likelihood of future episodes.111

Morbidity and Mortality. Depression is associated with cancer, diabetes, heart disease, anxiety and eating disorders, and alcohol and drug abuse.112 Depression during pregnancy is associated with adverse health behaviors, including cigarette smoking, use of alcohol or illicit substances, poor weight gain, poor sleep and inadequate prenatal care.113 Having a mental illness increases the likelihood of committing suicide. While women attempt suicide more often than men, men are almost five times more likely to complete a suicide attempt.114 Among people who are severely depressed, the suicide death rate is estimated to be as high as 15%.115

Figure 6: Serious Mental Illness in Past Year, by Age and Sex, 2002

![Figure 6: Serious Mental Illness in Past Year, by Age and Sex, 2002](image-url)
**Recommended Practices.** Primary care physicians treat the majority of depression cases, yet they fail to diagnose about one-half of all cases of depression. Most cases of clinical depression are preceded by sub-clinical depressive symptoms, suggesting the possibility of a window for preventive care. Given the high rate of depression among reproductive age women, it has been suggested that gynecologists might be trained to screen for depression. Similarly, pediatricians might be trained to screen for depression among mothers of children under two years of age.16

In 2002, the USPSTF recommended that primary care physicians screen adult patients for depression, based on new evidence from randomized trials suggesting that clinical screening and follow-up with appropriate treatment helps patients. An important caveat in this new recommendation is that screening should take place “in clinical practices that have systems in place to assure accurate diagnosis, effective treatment and careful follow-up.” Many tools to screen depression are available. The USPSTF notes that clinicians should choose the tools they prefer, although screening can effectively consist of two simple questions: “Over the past two weeks, have you ever felt down, depressed or hopeless; and have you felt little interest in doing things?” A positive response to these two questions should be followed up with a formal diagnostic tool. Outcomes improve when patient education, feedback and telephone follow-up are integrated into care.17

**E. Osteoporosis**

Osteoporosis is the most common of bone diseases. Approximately 10 million persons in the United States over age 50 have osteoporosis, and another 34 million are at risk. This disease is characterized by low bone mass and structural deterioration of bone tissue as people age, which leads to bone fragility. Women are four times more likely than men to develop it, in part because estrogen slows down bone loss, and women experience a loss of estrogen at menopause. Each year an estimated 1.2 million women will have an osteoporotic-related fracture. The cost of medical care in the United States for osteoporotic-related fractures is estimated to be as high as $18 billion each year.18

**Risk Factors.** Poor diet lacking in vitamins and minerals over a lifetime is the main risk factor for osteoporosis; additional risk factors for women include older age, being underweight, and being of non-Hispanic white or Asian descent (see Figure 7 for data on prevalence by race/ethnicity). Amenorrhea (cessation of menstrual periods), smoking and heavy drinking can contribute to poor bone health, however, much of the risk of bone disease is genetic.19

**Prevalence.** It is estimated that 40% of women over age 50 will have an osteoporosis-related fracture in their lifetime. Due to the aging of the population and because of poor health behaviors with regard to diet and exercise, the proportion of women with osteoporosis is expected to increase over the next 15 years (see Figure 8).20
Morbidity and Mortality. Fractures due to osteoporosis can be debilitating and can often lead to a decline in overall physical and mental health and an increased risk of death. Approximately 20% of women over age 65 who have a hip fracture die within one year. Women are at greater risk of fractures than men; approximately 40% of women age 50 or older will experience a hip, spine or wrist fracture at some point in the remainder of their lives, compared to 13% of men. Women account for 80% of hip fractures, due in part to their longer life expectancy, lower bone density and increased likelihood of falling.121

Recommended Practices. A key message in the 2004 Surgeon General’s report on bone health and osteoporosis is osteoporosis is not a naturally occurring and unavoidable consequence of aging, but a preventable condition. Prevention of osteoporosis begins at birth and continues throughout life. Although prevention should start in childhood, measures to help in the promotion of bone health can occur at any age. National surveys indicate that the average calcium intake and leisure-time physical activity among women are well below recommended levels for prevention of osteoporosis. The disability, and even death, that may result from osteoporosis may be avoided by identifying at-risk individuals and providing counseling and treatment in a timely manner.122

The Surgeon General offers the following recommendations to promote bone health:

- Eat foods rich in calcium and vitamin D (Table 5 provides daily intake);
- Be physically active (30 minutes of physical activity daily, including strength and weight-bearing activities);
- Maintain a healthy body weight; and
- Avoid smoking and limit alcohol intake.

The Surgeon General advises clinicians to assess all women with respect to these bone health recommendations. In addition, bone mineral density testing (which should be repeated every two years123) is advised for women with any of the following indications:

- Age 65 and over;
- Postmenopausal and under age 65 with:
  - Family history of osteoporosis;
  - Personal history of low-trauma fracture after the age of 50; or
  - Current cigarette smoker;
- Low body weight;
- Late onset of sexual development;
- Unusual cessation of menstrual periods;
- Athletic amenorrhea syndrome;
- Take medications that cause bone loss; and
- Have diseases that may lead to or aggravate osteoporosis.124

| Table 5: Institute of Medicine Daily Intake Recommendations for Calcium and Vitamin D* |
|-----------------------------------------------|------------------|
| **Calcium**                                   | **Vitamin D**    |
| Infants                                       | Women under age 50 |
| 210 mg                                        | 200 IU           |
| Women age 9 to 18                             | Women age 50 to 70 |
| 1,300 mg                                      | 400 IU           |
| Women age 19 to 50                            | Women over age 70 |
| 1,000 mg                                      | 600 IU           |
| Women over age 50                             | Daily limit      |
| 1,200 mg                                      | 2,500 IU         |
| Daily limit                                   |                  |

*The recommendations are unchanged for pregnant and lactating women

F. Overweight and Obesity
Being overweight is associated with multiple diseases and preventable causes of death. The prevalence of overweight and obese persons in the United States has increased over the past 40 years and continues to rise. Total annual costs for medical care and lost productivity attributable to obesity are approximately $100 billion. Women are more likely than men to be obese, and some experts believe that obesity in the United States is the most important modifiable health problem for women behind smoking.

Prevalence. More than one-half of all adult women are either overweight or obese. Since the early 1960s, the proportion of women who are obese has increased by over 30%. As seen in Figure 9, the probability of being overweight among women increases with age. African American and Hispanic women are more likely than other women to be overweight or obese (see Figure 10).

Morbidity. Persons who are overweight or obese are at increased risk for hypertension, high cholesterol, coronary heart disease, stroke and Type 2 diabetes. There is also some evidence to suggest an association with gallbladder disease, osteoarthritis, sleep apnea, respiratory problems and some cancers. As Body Mass Index (BMI) levels rise, average blood pressure and total cholesterol levels increase. Overweight and obese people are also subject to psychological stress, and potentially lowered self-esteem due to social stigmatization. Obese individuals have greater medical costs than other people and more days lost from work. Compared to those with BMIs under 25, people with BMIs greater than 30 incur prescription drug costs that are 105% higher, inpatient costs that are 14% higher, and outpatient costs that are 38% higher.

Recommended Practices. Among overweight and obese individuals, weight loss or no further weight gain can improve health outcomes. Even the smallest decreases in caloric intake and increases in physical activity can have an important impact on improving health and reducing weight. Weight loss in overweight persons can help to reduce high total cholesterol, hypertension and elevated blood glucose.

The USPSTF reviewed the evidence on screening for obesity in adults in 2003 and recommends that clinicians screen all adult patients for obesity using BMI. For patients who are obese, clinicians should offer intensive counseling (defined as more than one session per month for at least the first three months) on diet and exercise, and recommend interventions to help patients eat better and exercise more. Although not yet demonstrated to work for weight loss, the “Five A” approach (Ask, Advise, Agree, Assist and Arrange) that has been successful with smoking cessation is recommended by USPSTF for use as a potentially useful tool to help clinicians guide interventions for weight loss (see Section III.C for more information). With anything less than intensive counseling, interventions with obese adults research results were mixed. Sufficient research was not available on interventions for weight loss among overweight adults, thus the USPSTF made no recommendation in this regard. There are currently many programs underway to address the obesity epidemic in the United States, and future research focused on obesity prevention specific to women is vital.
A. Diet
Diet has a large impact on the prevalence and burden of preventable diseases, and poor diet is associated with premature death.\textsuperscript{132} Research has demonstrated that changes in diet can help prevent hypertension and reduce blood cholesterol levels.\textsuperscript{133} Half of health promotion behaviors recommended by the medical community are nutrition related, in response to growth in excessive consumption of protein, fat, sodium and low intake of fiber-rich foods. In recent decades there has been a paradigm shift from the traditional focus on nutrients to a current focus on poor eating habits.\textsuperscript{134}

Prevalence. Existing data on food intake indicate that women generally do not eat as well as men. The United States Department of Agriculture (USDA) releases diet guidelines every five years. In both 2000 and 2005, the USDA recommended consumption of plenty of vegetables, fruits, grain and dairy products and limited fat intake. Women are substantially less likely than men to consume recommended servings of all main food groupings.\textsuperscript{135} With regard to fat intake guidelines, a minority of adult men and women achieve recommended guidelines.\textsuperscript{136} The trend of meals and snacks eaten outside the home is increasing, which increases the likelihood of eating higher-fat and higher-calorie foods. Data do not exist on whether women are more likely than men to eat outside the home.\textsuperscript{137}

Recommended Practices. The USDA 2005 dietary guidelines emphasize the importance of matching caloric intake to energy needs, and limiting intake of saturated and trans fats, cholesterol, added sugars, salt and alcohol. The specific recommendations, for a reference 2,000 calorie intake, are to consume:

- Two cups of fruit each day, and a variety of fruit each week;
- Two and one-half cups of vegetables per day, and a mix of vegetables: dark green, orange, legumes, starchy vegetables and others;
- Three or more ounce-equivalents of whole-grain products every day;
- Three cups per day of fat-free or low-fat milk or equivalent milk products;
- A maximum of 20% to 35% of calories in fats (where less than 10% of calories come from saturated fatty acids and most fats coming from sources of polyunsaturated and monounsaturated fatty acids, such as fish, nuts and vegetable oils);
- Less than 2,300 mg (approximately one teaspoon of salt) of sodium per day; and
- Limited alcohol (one drink per day for women and up to two drinks per day for men).\textsuperscript{138}

There is insufficient data to recommend for or against routine counseling to improve diet among the general population of patients in primary care settings. The USPSTF does recommend, for adult patients with risk factors for cardiovascular and diet-related chronic disease, intensive diet counseling (defined as multiple sessions lasting 30 minutes or longer) provided either by primary care clinicians or by specialists.\textsuperscript{139}

B. Physical Activity
Regular physical exercise offers many physical and psychological benefits and is associated with preventing the onset of disease and with lowering death rates. It is estimated that insufficient physical activity contributes to 22% of coronary heart disease and 12% of diabetes and hypertension.\textsuperscript{140} Despite the importance of even moderate physical activity, over 60% of adult women in the United States do not engage in recommended levels and are less likely than men to be physically active.\textsuperscript{141}
Prevalence. Factors related to whether individuals exercise include gender, age, race/ethnicity, education and income level.

- **Women** are less likely than men to participate in regular physical activity.\(^{142}\)
- The proportion of women that exercise decreases with age: 34% age 18 to 25 exercise, compared to just 12% of those age 75 and older.\(^{143}\)
- **Women of color** are more likely to lead sedentary lifestyles than non-Hispanic white women: 57% of Hispanic women, 55% of African American women, and 43% of Asian/Pacific Islander women report being physically inactive, compared to 38% of non-Hispanic white women.\(^{144}\)
- **Women with low incomes and low education levels** report low levels of physical activity.\(^{145}\)

The main barriers women report to getting enough exercise include lack of time, lack of access to facilities, lack of child care, monetary costs and lack of a safe environment.\(^{146,147,148}\)

Health-Related Issues. Regular physical exercise has enormous health benefits for women. It has been shown to:

- **Reduce the risk of death from heart disease**;
- **Lower the risk of developing diabetes**;
- **Decrease the risk of developing colon cancer**;
- **Increase muscle and bone strength**;
- **Decrease body fat and assist in weight control and loss**;
- **Promote maintenance of peak bone mass and reduce the risk of osteoporosis**;
- **Improve strength and agility among older adults**; and
- **Enhance psychological well-being.** \(^{149}\)

Recommended Practices. To achieve health benefits, CDC recommends moderate physical activity (e.g., walking) for at least 30 minutes most days of the week. Vigorous physical activity (e.g., running) is recommended for 20 minutes three or more days a week for improved cardiorespiratory fitness, and it can improve upon the health benefits of moderate physical activity.\(^{150}\) Available data suggest that less than one-half of patients are advised by their physicians to exercise.\(^{151}\)

In 2002, the USPSTF reviewed available research concerning whether or not physical activity counseling led to sustained increases in physical activity among adult patients. It concluded that existing data were inadequate to make a determination and did not issue a recommendation. The report also stated that there were too few studies of sufficiently high quality to determine whether a particular counseling technique was superior.\(^{152}\)

While the USPSTF found insufficient information to recommend routine counseling on physical activity, many organizations and federal agencies recommend it. Organizations supporting this position include CDC, the National Center for Education in Maternal and Child Health, the American Academy of Family Physicians, the American Academy of Pediatrics (AAP), the American Heart Association and ACOG. The USPSTF suggests that these organizations' recommendations are based on the health benefits of physical activity, which differ from the USPSTF’s criteria of evaluating the effectiveness of counseling by clinicians for promoting changes in physical activity.\(^{153}\)

In 2005, the Department of Health and Human Services, along with the Department of Agriculture, released new dietary guidelines: at least 30 minutes of moderate-intensity physical activity on most days of the week to reduce the risk of chronic disease. To prevent gradual, unhealthy weight gain, up to an additional 30 minutes of physical activity per day may be needed while not exceeding caloric intake requirements. For previously overweight/obese people, about 60 to 90 minutes of moderate-intensity physical activity per day is recommended.\(^{154}\)
C. Cigarette Smoking

Cigarette smoking is the single greatest preventable cause of death and disease in the United States, with over 400,000 tobacco-related deaths occurring every year. Direct medical costs attributable to cigarette smoking are $50 billion per year.\(^{155}\)

Prevalence. About 25% of all adults in the United States smoke, and men are slightly more likely than women to smoke.\(^{156}\) Among adolescents, females are slightly more likely than males to smoke. In the 1990s, the several decade decline in smoking rates among women stalled, and smoking rates increased among teenage girls (see Figure 11). Nearly all women who currently smoke started smoking as teenagers,\(^{157}\) and an estimated 8% of female smokers began smoking before their tenth birthday.\(^{158}\) Among teens, risk factors for smoking include other risk-taking behaviors, access to cigarettes at home and working more than 20 hours per week. The main reason women continue to smoke is nicotine addiction, but others include stress management and as a part of socializing.\(^{159}\)

Among reproductive-age women, considerable differences in the likelihood of smoking are observed by socioeconomic, race/ethnicity, and pregnancy status.

- **Women with less than a high school education are almost three times more likely to smoke than women with a college education.**\(^{160}\)
- **Women with low incomes are more likely to smoke than other women.**\(^{161}\)
- **African American and Hispanic women are less likely to smoke than non-Hispanic white women.**\(^{162}\)
- **Among pregnant women, non-Hispanic white women are more than three times as likely as African American women to smoke (see Figure 12).**\(^{163}\) While the prevalence of smoking during pregnancy is declining, two-thirds of women who quit while pregnant begin to smoke again within one year of delivery.\(^{163}\)

Health-Related Issues. There are many health risks for women associated with cigarette smoking. Smoking among women is:

- A major cause of heart disease;
- A risk factor for stroke;
- A primary cause of chronic obstructive pulmonary disease (COPD);

**Figure 11:** Daily Cigarette Use in Lifetime by Age and Sex: 1975-2002

**Figure 12:** Females Aged 15–44 Years Reporting Past Month Use of Cigarettes, by Race/Ethnicity and Pregnancy Status, 2002

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- Associated with 90% of lung cancer deaths (the leading cause of cancer deaths);
- Associated with cancer of the bladder, cervix, kidney, liver, oropharynx and pancreas;
- A risk factor for miscarriage, premature delivery and low birth weight;
- Associated with an increased risk for compromised fertility; and
- Associated with lower bone density.

Environmental tobacco smoke increases the probability of heart disease among adults, and asthma and bronchitis in children.164

Recommended Practices. The USPSTF’s 2003 report on smoking cessation strongly recommends that clinicians screen all adults for tobacco use and provide tobacco cessation interventions for those who use tobacco products.165 The Surgeon General’s 2001 report on women and smoking suggests that even brief interventions by clinicians to assist in smoking cessation have a positive effect, and that interventions have an impact independent of whether the patient is interested in quitting smoking or not.166 Government agencies offer resources for clinicians to improve their efforts advising patients to quit and communicating the important reasons for doing so.

Cigarette smoking is the single greatest preventable cause of death and disease in the United States, with over 400,000 tobacco-related deaths occurring every year. The “Five A” approach, originally derived from research on tobacco cessation, is suggested by the USPSTF as a tool to assist in smoking cessation and other types of behavior change.167 The “Five A” approach encourages clinicians to:

ASK about smoking;
ADVISE to quit using clear personalized messages;
AGREE in collaboration with patients on what and how to change;
ASSIST through referral, staff, media and other means; and
ARRANGE follow-up through telephone calls, mail and other types of contact.168,169

The USPSTF’s 2003 report on tobacco counseling suggests that screening, brief behavioral counseling (less than three minutes) and pharmacotherapy delivered in primary care settings are effective in increasing the proportion of smokers who successfully quit smoking and remain abstinent after one year.170 For those who smoke, quitting and gaining support for doing so by speaking with a physician and enlisting the support of family, friends and co-workers is recommended by the USPSTF.171

Research suggests that women use more cessation strategies than men and find different types more effective. Women have greater success with cessation strategies that focus on attainment of skills that will keep them from smoking, such as relapse prevention strategies, and prefer a more gradual approach to quitting. Among adolescents, the research is more limited; however, studies suggest that girls may be more responsive to support from family and peers than boys.172
A. Prenatal Care

There are an estimated four million births in the United States annually. Preconception and prenatal care include the management of health conditions that may adversely influence women's prenatal health and pregnancy outcomes, including health education, health promotion and nutritional counseling. Healthy behaviors during pregnancy, and even prior to pregnancy, are important components to assure favorable pregnancy outcomes.

Preconception, Prenatal and Postnatal Care.

Preconception care is important in establishing a relationship between the patient and health care provider to help ensure that women consume adequate amounts of nutrients, particularly folic acid, in the months prior to pregnancy. Preconception care also allows for identification of and referral for women with unhealthy behaviors, such as smoking and substance abuse.

Prenatal care normally includes visits to a health care provider about once each month during the first six months of pregnancy, every two weeks during months seven and eight, then weekly until delivery. The first visit is normally comprised of a health history, family health history, physical exam, pelvic exam, blood pressure measurement, height and weight measurement and blood and urine tests. Subsequent visits include additional blood and urine tests, ultrasounds and possibly chromosomal screening tests.

As a component of counseling in prenatal care, women are encouraged during pregnancy to:

- Exercise regularly;
- Get plenty of rest and sleep;
- Avoid fish containing high levels of mercury (e.g., shark, swordfish, king mackerel and tilefish);
- Drink plenty of water (it carries nutrients to the fetus);
- Avoid caffeine; and
- Eat healthy foods and intake recommended levels of iron and folic acid.

Postnatal care is important in the event problems arise, to encourage and assist with breastfeeding, and to promote continuation of healthy behaviors post-delivery. The AAP recommends breast feeding for the first six months of life, although only approximately one-third of women adhere to that recommendation.

Prevalence. Almost 85% of births in the United States are to women who receive prenatal care in the first trimester, and this percentage has increased over the past two decades (see Figure 13). Non-Hispanic white women are most likely to receive prenatal care in the first trimester (89%), followed by Asian/Pacific Islander (85%), Hispanic (77%), African American (75%), and American Indian/Alaskan Native (70%) women.

Maternal Morbidity and Mortality. The most common medical complications during pregnancy are pregnancy-induced hypertension and diabetes, reported in 3.6% and 2.6% of pregnancies, respectively. Lack of prenatal care is associated with increased risk of hospitalization during pregnancy.

In 2001, there were 9.9 maternal deaths per 100,000 live births in the United States due to complications of pregnancy, childbirth and the postpartum period. African American women are more than three times more likely than non-Hispanic white women to die from pregnancy-related causes. Per 100,000 live births, the maternal mortality rate for non-Hispanic white women is 6.5, for Hispanic women 9.5 and for African American women 24.7.

Infant Morbidity and Mortality. In the United States, women who receive prenatal care are less likely to have premature births, low birth weight infants, and other complications that can result in infant mortality.
to have preterm births and low birth weight babies than women who do not receive prenatal care. Each year, an estimated 11% of all pregnancies result in preterm births,\(^\text{180}\) approximately 250,000 low birth weight infants are born,\(^\text{181}\) and an estimated 28,000 infants die in their first year of life.\(^\text{182}\) The overall infant mortality rate is 7.2 per 1,000 live births; by race/ethnicity it is 13.9 among African Americans, 9.3 among American Indian/Alaskan Natives, 6.0 among non-Hispanic whites and 5.8 among Hispanics.\(^\text{183}\)

**Effects of Unhealthy Behaviors.** Alcohol, tobacco and illegal substance use during pregnancy are major risk factors for low birth weight and other poor infant outcomes. Sustained alcohol use during pregnancy can result in fetal alcohol syndrome, with associated annual health care delivery costs estimated as high as $9.7 billion.\(^\text{184}\) Fetal alcohol syndrome is most prevalent among American Indian/Alaskan Native populations at 30 per 10,000 live births, compared to six among African American populations, and one among non-Hispanic white, Hispanic and Asian populations.\(^\text{185}\) Among women age 15 to 44, almost 5% report being pregnant and participating in binge drinking in the previous month. Non-Hispanic white women are more likely than any other racial/ethnic subgroup to participate in binge drinking while pregnant.\(^\text{186}\)

Smoking during pregnancy is associated with preterm birth, low birth weight and respiratory problems in infants. The highest proportion of women who report smoking while pregnant is among American Indian/Alaskan Native women (20%), followed by non-Hispanic white women (16%) and African American women (9%).\(^\text{187}\) Each year the annual health care delivery costs associated with smoking during pregnancy are estimated to be at least $1.4 billion.\(^\text{188}\)

Cocaine use during pregnancy is associated with miscarriage, brain damage, birth defects and premature labor.\(^\text{189}\) Its use during pregnancy is reported more frequently by African American women (5%) than by either Hispanic (0.7%) or non-Hispanic white (0.4%) women.\(^\text{190}\) Approximately $500 million is spent each year to provide health care services associated with cocaine use during pregnancy.\(^\text{191}\)

**Recommended Practices.** Recommendations regarding iron and folic acid intake for women are presented in Table 6. Only one in four females of childbearing age meets the United States recommended daily allowance for iron through their diets\(^\text{192}\) and pregnancy increases the iron requirement. The IOM recommends that all non-pregnant women age 15 to 25 years be screened at least once for anemia.\(^\text{193}\) Consumption of folic acid (Vitamin B) daily is particularly important for its protective effect against spina bifida, anencephaly and other neural tube defects if taken in the months prior to, and early in, pregnancy. The proportion of women of reproductive age taking folic acid supplementation to prevent neural tube defects has increased in recent years; it was 40% in 2004.\(^\text{194}\)

Prenatal screening and diagnosis is an area of rapid change. The AAP and ACOG recommend a blood test for all pregnant women during their second trimester to detect Down Syndrome and neural tube defects.\(^\text{195}\) Amniocentesis (normally performed at 15 to 18 weeks gestation) or chorionic villus sampling (CVS) (normally performed at 10 to 12 weeks gestation) is recommended for all women 35 years or older and among pregnancies in which an ultrasonic examination or blood test result has identified a possible fetal problem. In recent years amniocentesis performed at 11 to 13 weeks and CVS before 10 weeks has gained attention, and the AAP recommends against performing such early procedures.\(^\text{196}\)

In June 2004, ACOG issued a position statement on first trimester screening with respect to new technologies for noninvasive screening for chromosomal abnormalities that measure nuchal translucency. These technologies, when combined with blood screening in the first trimester, have similar detection rates as the standard second trimester blood screening. ACOG makes the point

| Table 6: Institute of Medicine Daily Intake Recommendations for Iron and Folic Acid |
|-----------------|----------|
| **Iron**        |          |
| Pregnant women  | 30 mg    |
| Premenopausal women | 30 mg |
| Postmenopausal women | 30 mg |
| Daily limit     | 30 mg    |
| **Folate and Folic Acid** | |
| All women (folate) | 30 mg |
| Women anticipating pregnancy (folic acid) | 30 mg |
| First trimester of pregnancy (folic acid) | 30 mg |

that first trimester screening is not a diagnostic test, and while it may help detect chromosomal abnormalities such as trisomy 18 and Down Syndrome, and pregnancies at risk for heart defects, it cannot be used as a screening test for neural tube defects. Positive results from first trimester screening should be followed up with diagnostic tests (i.e. CVS or amniocentesis).217

B. Sexually Transmitted Diseases: Chlamydia and Gonorrhea

Sexually transmitted diseases (STDs) are the most common reportable diseases in the United States. STDs have serious health consequences, as women have more frequent and more serious complications from STDs than men, and their impact can be costly and irreversible.198 Chlamydia and gonorrhea are the first and second most prevalent STDs, respectively.199 The direct and indirect costs of STDs and their complications in the United States, including human immunodeficiency virus (HIV) infection, are estimated at $17 billion annually.200 Treatment costs attributable to chlamydia and its consequences are approximately $2.4 billion annually.201 Estimates of the annual cost of gonorrhea and its complications are close to $1.1 billion.202

Prevalence. Eighty percent of all reported cases of chlamydia were for women in 1999.203 The highest rates of infection occur among women age 15 to 24 years (see Figure 14). Rates of chlamydia are highest among African American women, followed by American Indian/Alaskan Native women, Hispanic women, and Asian/Pacific Islander women, and are lowest among non-Hispanic white women (see Figure 15). Chlamydia rates have been increasing since 1995, thought to be largely a function of expanded federally funded screening programs, use of more sensitive diagnostic tests, and changes to reporting systems, rather than an increase in incidence.204

Numbers of reported cases of gonorrhea are roughly equal for men and women, and, as illustrated in Figures 14 and 15, the overall prevalence of gonorrhea is much lower than that of chlamydia. Patterns across age and racial/ethnic groupings, however, are very similar. Reported cases of gonorrhea have declined for several decades and have continued to decline.205 The gonorrhea rate for women per 100,000 population was 140 in 1995,206 126 in 2000 and 119 in 2003.207

In 1999, NCQA began evaluating health plans on chlamydia screening, adding it to Health Plan Employer Data and Information Set (HEDIS) measures. In that year, among commercial plans, 19% of women age 16 to 20 years and 16% of women age 21 to 26 were screened. Those numbers increased to 30% and 29%, respectively, by 2003.208 However, screening levels remain low. The fact that only 13% of chlamydia infections in CDC's surveillance system are reported by public STD clinics reinforces the point that this condition is prevalent among the general population and that commercial plans have an important role to play in reducing the spread of infection.209

Morbidity. Chlamydia and gonorrhea have serious health consequences. Approximately 40% of women with untreated chlamydia infections develop pelvic inflammatory disease (PID), which causes scar tissue in the fallopian tubes. Of those that develop PID, 20% will become infertile, 18% will have pelvic pain and 9% will have a tubal pregnancy resulting in miscarriage and possible death of the mother.210 A woman with chlamydia is three to five times more likely than other women to acquire HIV if exposed to the virus. Among women with active chlamydia infections that give birth, 60% of the infants born to these women have eye infections or pneumonia as a consequence of their mother's infection.211

Recommended Practices. Transmission of chlamydia, gonorrhea and other STDs can be avoided through practicing abstinence or monogamy. CDC recommends that both partners be tested for STDs before engaging in sexual intercourse with a new sexual partner. If sexual

Figure 14: STDs Among Females Aged 10 and Older, by Age 2002

activity occurs prior to testing, prophylactic protection should be used.\textsuperscript{21}

Screening for STDs is important because women are often asymptomatic and unaware of their infection, and therefore are at risk of spreading infection and of developing adverse outcomes.\textsuperscript{21} Guidelines from the USPSTF and CDC are presented in Table 7. New urine-based chlamydia and gonorrhea screening tests make screening a less burdensome process for both patient and clinician.\textsuperscript{24} Materials to educate patients who may lack awareness of the high prevalence of chlamydia, and may be unaware of the asymptomatic nature of infection and the severity of health consequences, could help to reduce new cases.

**Figure 15: STDs Among Females Aged 10 and Older, by Race/Ethnicity 2002**

![STDs Among Females Aged 10 and Older, by Race/Ethnicity 2002](source)

**Table 7: Chlamydia and Gonorrhea Screening: Recommendations from the USPSTF**

<table>
<thead>
<tr>
<th>Organization</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>USPSTF</strong></td>
<td></td>
</tr>
<tr>
<td>Screening for chlamydia (2001)</td>
<td>• All sexually active women age 25 and younger, as well as other women with risk factors such as being single, having multiple partners, and having a prior history of an STD: routinely screen</td>
</tr>
<tr>
<td></td>
<td>• Asymptomatic low-risk women in the general population: no recommendation (benefits do not sufficiently outweigh harms)</td>
</tr>
<tr>
<td></td>
<td>• Asymptomatic, low-risk pregnant women age 26 years and older: no recommendation (benefits do not sufficiently outweigh harms)</td>
</tr>
<tr>
<td>Screening for gonorrhea (1996)</td>
<td>• Asymptomatic women at high risk of infection: routinely screen</td>
</tr>
<tr>
<td></td>
<td>• All high risk pregnant women: routinely screen</td>
</tr>
<tr>
<td><strong>CDC</strong></td>
<td></td>
</tr>
<tr>
<td>Pregnancy and chlamydia (2002)</td>
<td>• All women at first prenatal visit: routinely screen</td>
</tr>
<tr>
<td></td>
<td>• Women below age 25 or having multiple partners: routinely screen again in third trimester</td>
</tr>
<tr>
<td>Pregnancy and gonorrhea (2002)</td>
<td>• All women at risk or living in a high gonorrhea prevalence area: routinely screen in first and third trimesters</td>
</tr>
</tbody>
</table>

A wide variety of initiatives have been implemented by the federal government, state governments, academia, communities and the private sector to improve health promotion and disease prevention among women. This section highlights a small number of selected programs. Appendix B provides a list of programs that offer key services aimed at improving health and overall well-being among women and is intended as a resource for health care providers. For each program listed, a website and contact information are provided to facilitate the acquisition of additional information.

Federal Government
The federal government has numerous programs in women’s health run by diverse agencies within the Department of Health and Human Services (DHHS) such as CDC, the Agency for Healthcare Research and Quality (AHRQ), the National Institutes for Health (NIH) and the Health Resources and Services Administration (HSRA). The programs have a range of orientations, such as health care practice, research, monitoring, data collection and information dissemination, and most programs cut across a number of these areas.

One such federal program is the National Breast and Cervical Cancer Early Detection Program (NBCCEDP) run by CDC. NBCCEDP provides free or low-cost mammograms and Pap tests to women with low incomes and minority women in all 50 states and the territories. To date, NBCCEDP has screened 1.8 million women, provided 4.6 million screening examinations and diagnosed 17,009 breast cancers, 61,474 precancerous lesions and 1,157 cervical cancers. The program includes surgical consultation and diagnostic testing for women whose screening outcome is abnormal. The Breast and Cervical Cancer Treatment and Prevention Act passed in 2000 gives states the option to provide full Medicaid benefits to uninsured women enrolled in NBCCEDP who have a diagnosis of breast cancer, cervical cancer or a related precancerous condition. A total of 49 states and the District of Columbia have approved Medicaid amendments to participate in the program.

The program works with partner organizations to increase awareness of the need for screening and to fund screening service providers, and it sets national guidelines for screening. For example, it has partnered with Avon to provide mammography vans and help community-based organizations recruit women for screening, and with Men Against Breast Cancer to provide workshops that improve men’s ability to care for and support their partners. It also works with two organizations to provide services to lesbian women and raise awareness about special issues faced by lesbian women. The program provides national guidance on screening and diagnostic follow-up to ensure that current techniques and best practices are used in caring for women served by the program. Case management services are also provided to ensure that women receive screening at proper intervals, obtain follow-up services in the event of abnormal test results and generally receive appropriate medical treatment.

NBCCEDP has a variety of innovative, community-based programs at the state level. For example, in Washington, D.C., efforts were undertaken to make improvements in the rate at which women kept their appointments for mammograms. The D.C. program established a network of “lay health navigators.” The navigators came from the low-income communities being served and shared the same socioeconomic and cultural orientation. The navigators were trained to speak with women about their fears and mistrust of mammography. They also provided counseling, served as a link to various support services for women and reminded women of their scheduled mammograms. The Navigator Program has increased, by a factor of five, the likelihood that women attend their scheduled screening appointments.

CDC also has a number of innovative federal programs aimed at increasing smoking cessation. For example, a recently developed program entails a national network called “Telephone Quitlines” providing telephone counseling for tobacco dependence. The program is built on research that demonstrates the importance of counseling in smoking cessation, as well as the relatively low use of counseling in cessation (only 1% of those trying to quit use counseling). The program has a national number, 1-800-QUITNOW and capability in six different languages. Results to date indicate that it has been able to reach 2%
to 3% of the smoking population and has improved quit and one-year abstinence rates.

Refer to Appendix B for more information about other federally- and state-operated programs in women’s health.

State Government
Since 2002, HRSA’s Maternal and Child Health Bureau (MCHB) has awarded 15 Integrated Comprehensive Women’s Health Services in State Maternal and Child Health Programs demonstration grants. The goal of the program is to strengthen the infrastructure for women’s health services at the state level by: 1) establishing a focus of responsibility or focal point for the coordination of primary care, preventive and mental health services; and 2) expanding capacity for comprehensive women’s health services by using existing resources to create sustainable linkages/partnerships with community-based organizations, academic institutions, federal, state and local agencies. For example:

THE MAINE BUREAU OF HEALTH funded a full-time women’s health coordinator who created key internal and external partnerships. The partnerships led to the development of several tools to guide the work, including a Consumer Satisfaction Survey, Consumer Self-Advocacy Tools and a manual for marketing women’s health care to providers and hospitals/health systems.

Since September 2004, three more projects have been funded: 1) the Florida Department of Health; 2) the Oregon Department of Human Services; and 3) the Sandoval County Community Health Alliance (Bernalillo, New Mexico). Additional information and contacts for all of these state programs can be found in Appendix B.

Academia
The National Centers of Excellence in Women’s Health (CoEs), a program of the DHHS Office of Women’s Health (OWH), were established as demonstration models to provide innovative, comprehensive, multidisciplinary and integrated health care systems for women. The CoEs represent an integrated model for the delivery of clinical health services to women and have an emphasis on the early detection of diseases and conditions, while striving to meet the special needs of women, particularly underserved and minority women. The CoEs offer state-of-the-art comprehensive and integrated health care services and have a strong educational and training component. Reaching out to the community is a priority for CoEs, and the programs were established to develop strong linkages with local entities. Located in university settings, the CoEs emphasize multidisciplinary research and promote leadership positions for women in academic medicine.

A list of the individual CoEs is provided in Appendix B. One example of a CoE and the type of research conducted on women’s health issues follows:

HARVARD MEDICAL SCHOOL developed sex- and gender-specific strategies for the prevention and treatment of coronary heart disease in women. The work involves clinical intervention, research, education, community outreach and advocacy focused on low income, minority and older women. As part of this effort, focus group discussions were conducted on cardiac care for women, with the results indicating that modifying diet and exercise habits were the largest barrier to reducing risk for heart disease. A number of educational initiatives were developed in response, including an interactive cable television show and community discussion groups focused on reducing risks for cardiovascular disease among women of color. The television show highlights risk reduction strategies related to hypertension, diabetes, obesity, high blood cholesterol, smoking and stress.
**Communities**

The National Community Centers of Excellence in Women’s Health (CCOE) program is aimed at integrating and strengthening programs and activities that exist in the community to enhance services available to women. Like the CoEs, the CCOEs represent an effort to reduce fragmentation in women's health services. This initiative of the OWH provides resources to community-based programs to help develop and integrate health services delivery (primarily preventive services), provide training for health care professionals, foster community-based research, increase public education and outreach, promote leadership development for women and provide technical assistance to other communities to replicate the CCOE model.

A list of the individual CCOEs is provided in Appendix B. Examples include:

**THE MARIPOSA COMMUNITY CENTER OF EXCELLENCE IN WOMEN’S HEALTH**, located in Santa Cruz County, Arizona, near the United States/Mexico border, provides comprehensive health services and an extensive education and outreach program. It offers high-quality health care, regardless of an individual’s ability to pay. The CCOE is able to do so in part because it has leveraged an array of resources from federal, state, local and private sources to address the health care needs of its local population.

The Mariposa CCOE offers a range of medical, educational and social services. Clinical services include radiology, mammography, sonography, lab testing, pharmacy and dentistry. It also has telemedicine services provided via the Arizona Telemedicine Program at the University of Arizona Health Sciences Center. The main goals of the Center are to help women become more proactive about their health maintenance and empower them to be informed with regard to their health and well-being. The Center offers educational programs on women’s health topics and has support groups for cancer, diabetes and lupus.

Mariposa has successfully worked with county officials to develop an innovative, public-private partnership, whereby the CCOE has responsibility for implementing the clinical public health programs in the county. These programs are broad in scope, and include tuberculosis screening and treatment, immunizations, HIV/AIDS outreach/education and nutrition programs.

**THE NORTHEAST MISSOURI HEALTH COUNCIL**, a rural community-based center in women’s health, is creating integrated networks of care where none previously existed. The center serves 11 rural counties, bringing together health care providers, educators, researchers and consumers. This CCOE’s goal is to provide more comprehensive services to the community of underserved rural women by training lay and professional health providers on important women’s health issues. Through creation of a system of partnerships in care, this CCOE is achieving its goal of providing primary health care services as well as dental, mental health and other health-related services. As an example of their accomplishments, all partners in the community network provide comprehensive, free of charge health screenings for women.

**Health Plan Programs**

Health insurance providers across the United States have expanded covered health care services for women and continue to develop and implement new programs to provide increased education and access to preventive services to ensure that women receive the highest quality care. The programs and initiatives underway at health plans targeted to women’s health include focused efforts on prevention and wellness, disease management, quality improvements through evaluation of existing programs and greater community involvement. There is an emphasis on the importance of preventive screenings for breast, cervical and colorectal cancer, as well as for chlamydia in young women. Health plans use both telephone calls and mailings to remind female members to make screening appointments and to provide information related to screening barriers and motivating factors for receiving preventive screenings. Health plans have also implemented technology innovations that attempt to overcome barriers to screening. Some examples are summarized next.

**HORIZON BLUE CROSS BLUE SHIELD OF NEW JERSEY** has implemented ELIZA, an initiative that links automated reminder telephone calls to members (for post-partum check-ups, and breast cancer, cervical cancer and chlamydia screenings) directly to an automated system for scheduling appointments with their provider.
Other preventive health programs include mailing educational materials to members and providers on issues important to women’s health. Many health plans also send women’s health specific newsletters, electronically or by mail, which address topics such as smoking cessation, nutrition and reproductive health. Health plans extend additional educational resources to members by dedicating parts of their websites to women’s health topics and offering extensive links to further information. Health plans have also begun to work with employers and individual members to implement comprehensive prevention and wellness programs.

ANTHEM BLUE CROSS AND BLUE SHIELD’S HEALTHY WOMAN PROGRAM is one example of a non-traditional method used by a health insurance company to promote wellness, while emphasizing heart health and drawing on methods outside the traditional HEDIS norms that drive most wellness programs. Healthy Woman is a worksite wellness program delivered via key brokers to their clients, primarily targeting the female decision-makers in companies. Anthem produces 10 events in Ohio, Indiana and Kentucky each year where women are tested for cholesterol, blood pressure and glucose, with the results then entered into a heart risk assessment tool. After discussion of these results with the medical director at the event, 23% of the now personally motivated company decision-makers contacted by telephone in follow-up had already begun new or additional worksite wellness activities, and 12% had future activities planned.

In addition to prevention and education, health plans promote appropriate management of disease by members through programs tailored to specific diseases, such as breast cancer, which offer comprehensive support for members’ needs and questions, as well as improve doctor-patient relationships. Outside of disease management, prenatal care programs are especially important for women throughout the course of pregnancy and can provide the necessary tools for women to experience healthy pregnancies through the assistance of their health plan. These programs outline the recommended prenatal care visits and provide reminders for the visits, offer personal coaching throughout the pregnancy, and educate women about proper immunization schedules for their newborn and about signs of postpartum depression.

Health plans continually look for ways to evaluate the effectiveness of their programs and initiatives to best serve the needs of individual members while providing the highest quality of care. The goal of program evaluation is to improve clinical performance and address barriers to care or utilization of services. Horizon Blue Cross Blue Shield of New Jersey is working to evaluate the effectiveness of the ELIZA reminder calls and also to better identify barriers to screening based on member response during the reminder phone calls. Anthem is currently in the process of evaluating the success of its Healthy Woman program, encouraging not just the individual women who attend, but their companies as well, to initiate wellness activities.

Many community organizations actively promote women’s health and offer ways health plans can participate in partnerships to improve the health of women.
Health care professionals play a critical role in improving the state of women’s health by generating awareness of the prevalence of women’s health conditions and the use of preventive services, and by promoting healthy behaviors and preventive screening use among their female patients. The current guidelines for preventive screening further identify ways in which clinicians can take action to work actively with their patients to provide the best possible preventive care and encourage women to follow recommendations for preventive care and health behaviors.

Research shows that physician suggestion is a key factor in determining whether women obtain recommended screenings. Providers can encourage adoption of improved health behaviors for diet, exercise and smoking by using patient-centered methods, such as the “Five A” approach (Ask, Advise, Agree, Assist and Arrange) presented in Section III.C. This concept is based on the idea that providing assistance beyond advice can help patients achieve goals. In other words, clinicians might begin by assessing as a basis for advising, then elicit patient involvement in prioritizing and goal setting, and finally assist in arranging additional assistance and following up on that assistance to see if adjustments are needed.

It is important to recognize that all sectors of medicine need to work together to improve women’s health and preventive behaviors, due to the variety of settings where women access care. For example, more than one-half of all reproductive age women only see obstetrician–gynecologist clinicians; and women looking after children may obtain relatively little health care for themselves, but contact the health care system primarily through pediatricians or family physicians. Therefore, to successfully reach women with preventive health measures it will be necessary to reach the broad range of health care providers with whom women come in contact on a regular basis.

In light of the continued focus on rising health care costs, highlighting the costs of treating medical conditions affecting women is a reminder of the value of preventive medicine. For example, the section on chlamydia notes that approximately $2.4 billion are expended annually in treatment costs. Behind this number is the fact that while the cost of curing a chlamydia infection is relatively small, the cost of untreated infection is high. Research indicates that every dollar spent on screening averts $12 in costs of the complications of untreated chlamydia. These types of statistics emphasize the importance of dedicating resources and money to prevent disease.

Finally, prevention can only be stressed as long as credible evidence-based recommendations exist for clinician interventions. In some cases, such as exercise and diet, no recommendations are offered with regard to counseling interventions due to lack of sufficiently high-quality data. By highlighting these gaps, clinicians are encouraged to contribute to the body of scientific knowledge on which evidence-based practice recommendations are made, by getting involved in primary care research. And while there is a vast amount of information available on women’s health, leveraging this information in a practical manner can be challenging. By assembling information into one document on a variety of women’s health programs that exist among health plans, interest groups, universities, state and national government agencies and communities, providers have quick access to a resource designed to raise awareness of the types of programs that are ongoing and serve as a guide for specific information.
References


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Description of United States Preventive Services Task Force (USPSTF) Recommendations
Convened by the Agency for Healthcare Research and Quality, the USPSTF is an independent panel of experts in primary care prevention who systematically review existing research to assist clinicians in applying evidence-based behavioral counseling recommendations to their practices. The USPSTF was first convened in 1984, and the present (and third) USPSTF first convened in 1998 to update existing recommendations and to address new topics. The updated recommendations from the third panel may be found at http://www.ahrq.gov/clinic/uspstf.htm.

After reviewing the available research, the USPSTF will either recommend, not recommend or provide no recommendation for the given primary care intervention under examination. The determinations are based upon the quality of the available research (evidence) and what the body of research indicates.

In the best case scenario, the evidence includes consistent results from well-designed, well-conducted studies in representative populations that directly assess effects on health outcomes.

In some cases, however, the evidence is insufficient to assess the effects on health outcomes because of limited numbers of studies, important flaws in their design or conduct, gaps in the chain of evidence, or lack of information on important health outcomes.

It is important to recognize that in cases where the USPSTF issues “no recommendation,” it indicates one of two things:

1) THE BENEFITS DO NOT OUTWEIGH HARMs. The quality of the existing body of research was sufficient, but the balance between the overall benefits and harms indicated by the evidence was too close to call.

2) THE EVIDENCE IS INSUFFICIENT. There was insufficient reasonable quality evidence on which to make a determination (i.e., more and better quality data are needed before a recommendation can be made).
## Appendix B: Resource Table for Programs and Initiatives in Women's Health

<table>
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<tr>
<th>Name</th>
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<tr>
<td>Bright Futures for Women's Health and Wellness (BFWHW)</td>
<td>Identifies opportunities for integrating prevention into health care through increasing women's use of preventive services, empowering women to share in health care decisionmaking, encouraging women to practice prevention in their daily lives; increasing practitioner utilization of preventive health guidelines and supporting communitywide health promotion.</td>
<td>Health Resources and Services Administration (HRSA), Office of Women's Health (OWH) 1-888-ASK-HRSA <a href="http://www.hrsa.gov/womenshealth">www.hrsa.gov/womenshealth</a></td>
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<tr>
<td>Take Time to Care</td>
<td>Encourages women to use medicine wisely. It is designed to reach women ages 45 and older, particularly those who are medically underserved. The program is a collaboration among government agencies, national health and consumer organizations, women's groups, health care providers and health institutions.</td>
<td>Food and Drug Administration (FDA) 1-888-463-6332 <a href="http://www.fda.gov/womens/tttc.html">www.fda.gov/womens/tttc.html</a></td>
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<td>Office of Minority Health Resource Center</td>
<td>Serves as a national resource and referral service on minority health issues. It collects and distributes information on health topics, including substance abuse, cancer, heart disease, violence, diabetes, HIV/AIDS and infant mortality. Other resources include customized database searches, mailing lists, referrals, and specific information on health issues affecting Native American and Alaska Native, African American, Asian American and Pacific Islander, and Hispanic populations.</td>
<td>Office of Minority Health (OMH) 1-800-444-6472 <a href="http://www.omhrc.gov/OMHRC/">www.omhrc.gov/OMHRC/</a></td>
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<tr>
<td>WISEWOMAN - Well-Integrated Screening and Evaluation for Women Across the Nation</td>
<td>Provides low-income, under insured and uninsured women aged 40 to 64 years with chronic disease risk factor screening, lifestyle intervention and referral services in an effort to prevent cardiovascular disease. CDC funds 15 WISEWOMAN projects, which operate on the local level in states and tribal organizations.</td>
<td>Centers for Disease Control and Prevention (CDC) 1-888-CDC-4NRG <a href="http://www.cdc.gov/wisewoman/">http://www.cdc.gov/wisewoman/</a></td>
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<td>State Heart Disease and Stroke Prevention Program</td>
<td>CDC currently funds health departments in 32 states and D.C. to develop, implement and evaluate programs that promote heart–healthy and stroke–free communities; prevent and control heart disease, stroke and their risk factors; and eliminate disparities among populations.</td>
<td>Centers for Disease Control and Prevention (CDC) <a href="mailto:ccdfinfo@cdc.gov">ccdfinfo@cdc.gov</a> <a href="http://www.cdc.gov/cvh/state_program/index.htm">http://www.cdc.gov/cvh/state_program/index.htm</a></td>
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<td>National Breast and Cervical Cancer Early Detection Program (NBCCEDP)</td>
<td>Provides free or low-cost mammograms and Pap tests to low-income and racial and ethnic minorities (in all 50 states, 6 U.S. territories, D.C. and 12 American Indian/Alaska Native Organizations), and information on screening services in the local area.</td>
<td>Centers for Disease Control and Prevention (CDC) 1-888-842-6356 <a href="http://www.cdc.gov/cancer/nbccedp/">www.cdc.gov/cancer/nbccedp/</a></td>
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<td>Cancer Information Service (CIS)</td>
<td>Provides information on cancer prevention, detection/diagnosis, causes and risk factors, state-of-the-art treatment, and cancer research. The CIS also provides referral to clinical trials and to community resources and services; free publications; and professional consultation for nurses, nutritionists and physicians.</td>
<td>National Cancer Institute 1-800-4-cancer <a href="http://cis.nci.nih.gov">http://cis.nci.nih.gov</a></td>
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<td>State-Based Diabetes Prevention and Control Programs</td>
<td>Provides resources and technical assistance to state health departments, national organizations and communities to develop and evaluate new strategies for diabetes prevention; establish partnerships to prevent diabetes problems; and to improve access to quality diabetes care for preventing, detecting and treating diabetes complications.</td>
<td>Centers for Disease Control and Prevention (CDC) 1-877-CDC-DIAB <a href="http://www.cdc.gov/diabetes/states/index.htm">http://www.cdc.gov/diabetes/states/index.htm</a></td>
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<td>National Suicide Prevention Lifeline</td>
<td>A network of 100 local crisis centers located in communities across the country that are committed to suicide prevention participate in the hotline. Callers receive suicide prevention counseling from trained staff at the closest certified crisis center in the network.</td>
<td>The U.S. Department of Health and Human Services’ Substance Abuse and Mental Health Services Administration (SAMHSA) 1-800-273-TALK <a href="http://www.suicidepreventionlifeline.org/">http://www.suicidepreventionlifeline.org/</a></td>
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<td>National Women’s Resource Center</td>
<td>Provides information and referral services that address the prevention and treatment of both mental illness and substance abuse. Also provides information dissemination services on women’s substance abuse prevention and treatment, as well as on mental health services issues throughout the life cycle.</td>
<td>Substance Abuse and Mental Health Services Administration (SAMHSA) 1-800-354-8824 <a href="http://www.ask.hrsa.gov/orgdetail.cfm?id=1686">www.ask.hrsa.gov/orgdetail.cfm?id=1686</a></td>
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<td>Depression Awareness, Recognition and Treatment Program</td>
<td>Provides information to the public and health care professionals about symptoms and treatment, as well as referrals to other organizations for further information.</td>
<td>The National Institute of Mental Health (NIMH) 1-800-421-4211 <a href="http://www.nimh.nih.gov/publicat/depression.cfm">www.nimh.nih.gov/publicat/depression.cfm</a></td>
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<td>Anxiety Disorders Education Program</td>
<td>Provides information to the public and health care professionals about symptoms and treatment, as well as referrals to other organizations for further information.</td>
<td>The National Institute of Mental Health (NIMH) 1-800-8-ANXIETY intramural.nimh.nih.gov/mood/pd/</td>
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<td>Panic Disorder Education Program</td>
<td>Provides information to the public and health care professionals about symptoms and treatment of these disorders as well as referrals to other organizations for further information.</td>
<td>The National Institute of Mental Health (NIMH) 1-800-64-PANIC intramural.nimh.nih.gov/mood/panic/</td>
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<td>State-Based Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases</td>
<td>Designed to help states prevent obesity and other chronic diseases by addressing two closely related factors — poor nutrition and inadequate physical activity. The program supports states with developing and implementing science-based nutrition and physical activity interventions.</td>
<td>Centers for Disease Control and Prevention (CDC) 770-488-5820 <a href="http://www.cdc.gov/nccdphp/dnppa/obesity/state_programs/index.htm">http://www.cdc.gov/nccdphp/dnppa/obesity/state_programs/index.htm</a></td>
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<td>Telephone Quitlines</td>
<td>Provides telephone-based cessation counseling in six languages to tobacco users through a national portal, with calls routed to state quitlines where available.</td>
<td>Centers for Disease Control and Prevention (CDC) 1-800-QUITNOW <a href="http://www.ctcinfo.org/upload/Quitline%20Fact%20Sheet.pdf">www.ctcinfo.org/upload/Quitline%20Fact%20Sheet.pdf</a></td>
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<td>Domestic Violence Hotline</td>
<td>A federally supported, nationwide, 24-hour domestic violence hotline that provides immediate crisis information and assistance, counseling and referrals to local shelters to women across the country.</td>
<td>Department of Health and Human Services and Department of Justice 1-800-799-SAFE <a href="http://www.ndvh.org">www.ndvh.org</a></td>
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<td>WIC: The Special Supplemental Nutrition Program for Women, Infants and Children</td>
<td>Provides nutritious foods, nutrition counseling and referrals to health and other social services to participants at no charge. WIC serves low-income pregnant, postpartum and breastfeeding women, and infants and children up to age five who are at nutrition risk.</td>
<td>U.S. Department of Agriculture, Food and Nutrition Service 703-305-2746 <a href="http://www.fns.usda.gov/wic/">http://www.fns.usda.gov/wic/</a></td>
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<td>Folic Acid for Healthy Babies - The National Folic Acid Campaign</td>
<td>A national folic acid promotion effort for the prevention of serious birth defects of the brain and spine (neural tube defects or NTDs). The goal of the effort is to teach all women about the importance of getting enough folic acid every day.</td>
<td>Centers for Disease Control and Prevention (CDC) 770-488-7284 <a href="http://www.cdc.gov/nccdphp/aag/aag_drh.htm">http://www.cdc.gov/nccdphp/aag/aag_drh.htm</a></td>
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<td>Safe Motherhood</td>
<td>CDC has worked with state and local health departments, universities, health maintenance organizations and others to improve the nation’s ability to identify illness and deaths due to pregnancy; and determine causes and develop strategies aimed at averting maternal complications and deaths.</td>
<td>Centers for Disease Control and Prevention (CDC) 770-488-5200 <a href="http://www.cdc.gov/reproductivehealth/mh1.htm">http://www.cdc.gov/reproductivehealth/mh1.htm</a></td>
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<td>National AIDS Clearinghouse</td>
<td>The Clearinghouse supports educational campaigns to inform health care professionals and to counsel pregnant women about HIV testing and treatments, so that the rate of HIV transmission from mother to child can be reduced. Free information is available through the HIV/AIDS Treatment Information.</td>
<td>Centers for Disease Control and Prevention (CDC) 1-800-458-5231 <a href="http://www.cdc.gov/hiv/hivinfo.htm">www.cdc.gov/hiv/hivinfo.htm</a></td>
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<td>Women’s Health and the Environment</td>
<td>The Federal Coordinating Committee on the Environment and Women’s Health is focusing attention on how occupational, home-based, atmospheric and other environmental exposures affect women’s health. A national strategy is being developed to identify these preventable health hazards and eliminate them from the lives of American women.</td>
<td>Office on Women’s Health (OWH, DHHS) 202-690-7650 <a href="http://www.4woman.gov/owh/environmental.htm">www.4woman.gov/owh/environmental.htm</a></td>
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<td>National Centers of Excellence in Women’s Health (CoEs)</td>
<td>The U.S. Department of Health and Human Services’ Office on Women’s Health (OWH) supports CoEs in academic health centers across the United States and Puerto Rico. The CoEs combine the latest advances in women’s health research and teaching with community outreach and clinical service delivery to promote new standards of excellence in women’s health. The CoEs also promote the career advancement of women, including minority women, in the health sciences. An important focus of the CoE program is addressing racial and ethnic disparities in women’s health.</td>
<td>Office on Women’s Health (OWH, DHHS) 1-800-994-WOMAN <a href="http://www.4woman.gov">www.4woman.gov</a></td>
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<td>Boston University CoE</td>
<td>The CoE provides comprehensive care to underserved women through integrated services. Selected initiatives include research on sex and racial disparities in heart disease treatments, training of providers in cardiovascular and diabetes risk assessment, and community education and outreach activities for reducing cardiovascular and diabetes risk, particularly among African American and Hispanic women.</td>
<td>Karen Freund, M.D., M.P.H. 617 638-8035 <a href="http://www.bmc.org/womenshealth">www.bmc.org/womenshealth</a></td>
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<td>Brown University/Women &amp; Infants Hospital CoE</td>
<td>The CoE provides comprehensive care to underserved women through integrated services. Selected initiatives include development of an educational tool to educate women on signs and symptoms of heart attack and other informational materials.</td>
<td>Maureen G. Phipps, M.D., M.P.H. 401 274-1122 x2834 <a href="http://www.womenandinffants.org/body.cfm?id=549">www.womenandinffants.org/body.cfm?id=549</a></td>
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<td>Magee-Women’s Hospital CoE</td>
<td>The CoE provides comprehensive care to underserved women through integrated services. Selected initiatives include the Heart Check program, which was initiated at the CoE and has been integrated into neighborhood clinics; and a consumer education class called &quot;Winning by Losing Weight&quot;. The Center for Diabetes and Pregnancy provides social services, nutrition counseling and diabetes education. The Ovarian Cancer Screening Center offers advanced diagnostic methods.</td>
<td>Sharon L. Hillier, Ph.D. 412 641-4747 <a href="http://www.drexel.edu/med/iwhl/COE.asp">www.drexel.edu/med/iwhl/COE.asp</a></td>
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<td>Drexel University CoE</td>
<td>The CoE provides comprehensive care to underserved women through integrated services. As part of its outreach efforts, the CoE conducts health fairs with cardiovascular disease screening for women and holds community outreach activities that include screening migrant Mexican women for diabetes.</td>
<td>Ana E. Núñez, M.D. 215-991-8450 <a href="http://www.drexel.edu/med/iwhl/COE.asp">www.drexel.edu/med/iwhl/COE.asp</a></td>
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<td>Harvard Medical School CoE</td>
<td>The CoE provides comprehensive care to underserved women through integrated services. Among its research initiatives is a study of sex- and gender-specific strategies for prevention, treatment and rehabilitation of cardiovascular disease in women. The Center for Cardiovascular Disease in Women and the Joslin Diabetes Center provide comprehensive care and community education for cardiovascular disease and diabetes respectively. The CoE has developed various educational materials and has provided assistance in development of culturally appropriate guidelines on cervical screening and breast health.</td>
<td>JudyAnn Bigby, M.D. 617-732-7123 <a href="http://www.hmcnet.harvard.edu/coe/">www.hmcnet.harvard.edu/coe/</a></td>
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<td>Indiana University School of Medicine CoE</td>
<td>The CoE provides comprehensive care to underserved women through integrated services. Selected initiatives include an educational program for diabetes that provides dietary and medical interventions, as well as programs providing assistance in weight management and smoking cessation. The CoE provides cancer support groups for inner-city women and has developed a video for African American women about what to expect when obtaining mammography services.</td>
<td>Rose S. Fife, M.D. 317-630-2243 <a href="http://www.iupui.edu/~womenhlt/">www.iupui.edu/~womenhlt/</a></td>
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<tr>
<td>Oregon Health and Science University CoE</td>
<td>The CoE provides comprehensive care to underserved women through integrated services. To promote awareness of women's health issues, the CoE established an education resource center that provides educational materials and access to health information for women of all ages and their families who wish to learn more about health and wellness. It also holds monthly spotlights on women's health and brown bag lunches.</td>
<td>Michelle Berlin, M.D., M.P.H. 503-494-4480 <a href="http://www.ohsuwomenshealth.com/coe/">www.ohsuwomenshealth.com/coe/</a></td>
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<tr>
<td>University of Arizona CoE</td>
<td>The CoE provides comprehensive care to underserved women through integrated services, as well as community outreach and education.</td>
<td>Marietta Anthony, Ph.D. 520-626-0218 <a href="http://www.womenshealth.arizona.edu/">www.womenshealth.arizona.edu/</a></td>
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<td>Tulane and Xavier Universities of Louisiana CoE</td>
<td>The CoE provides comprehensive care to underserved women through integrated services. The CoE is involved in clinical trials looking at high blood cholesterol, hypertension and diabetes among African American women. It has implemented the Heart to Heart Program, which provides educational materials and affords women the opportunity to meet with a care coordinator for 15 to 30 minutes free of charge. The CoE also has a diabetes health education program.</td>
<td>Jeanette H. Magnus, M.D., Ph.D. 504-988-5100 <a href="http://www.tulane.edu/~tuxcoe/NewWebsite/">www.tulane.edu/~tuxcoe/NewWebsite/</a></td>
</tr>
<tr>
<td>University of California, Los Angeles CoE</td>
<td>The CoE provides comprehensive care to underserved women through integrated services. The CoE is involved in the Take Time to Care About Diabetes Campaign, where it distributes informational material in the community. It is also a partner in a local government initiative to provide cervical cancer screening and education to underserved communities. The CoE has developed a breast cancer packet for newly diagnosed women and has produced a cervical cancer handbook for Vietnamese women.</td>
<td>Janet Pregler, M.D. 310-794-8063 womenshealth.med.ucla.edu/</td>
</tr>
<tr>
<td>University of California, San Francisco CoE</td>
<td>The CoE provides comprehensive care to underserved women through integrated services. The Comprehensive Cancer Center and Carol Franc Buck Breast Center are flagship centers for breast cancer research. The gynecology program provides advanced treatments for cancers of the reproductive system.</td>
<td>Nancy Milliken, M.D. 415-353-7481 <a href="http://www.ucsf.edu/coe/">www.ucsf.edu/coe/</a></td>
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<tr>
<td>University of Missouri CoE</td>
<td>The CoE provides comprehensive care to underserved women through integrated services, as well as community outreach and education.</td>
<td>Richard J. Derman, M.D., M.P.H., F.A.C.O.G. 816-235-1863</td>
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<tr>
<td>University of Illinois at Chicago CoE</td>
<td>The CoE provides comprehensive care to underserved women through integrated services. The Center is involved in various cardiac-related research, including research exploring gender differences in heart function, and research on factors influencing physical activity among minority women. Innovative outreach efforts include providing breast cancer information through beauty salons. The Maternal Fetal Medicine Gestational Diabetes Clinic is housed in the CoE clinical care area.</td>
<td>Stacie E. Geller, Ph.D. 312-413-7501 <a href="http://www.uic.edu/orgs/womenshealth/">www.uic.edu/orgs/womenshealth/</a></td>
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<td>University of Michigan CoE</td>
<td>The CoE provides comprehensive care to underserved women through integrated services. The CoE has collaborated with the Women’s Cardiovascular Health Program in developing prevention programs, assisting with health education, outreach events and research. A major focus is the prevention and maintenance of diabetes in a nearby local community. The CoE also maintains a library of women-specific cancer education materials.</td>
<td>Margaret Punich, M.D. 734-936-8886 <a href="http://www.med.umich.edu/whp/">www.med.umich.edu/whp/</a></td>
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<td>University of Minnesota CoE</td>
<td>The CoE provides comprehensive care to underserved women through integrated services. The CoE has over 175 research studies in progress to improve and expand knowledge of women's health. It holds focus groups with community partners to learn what women in the community view as important health needs, and then develops culturally sensitive programs to address those needs.</td>
<td>Nancy C. Raymond, M.D. 612-626-1125 <a href="http://www.womenshealth.umn.edu/">www.womenshealth.umn.edu/</a></td>
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<tr>
<td>University of Mississippi Medical Center CoE</td>
<td>The CoE provides comprehensive care to underserved women through integrated services, as well as community outreach and education.</td>
<td>Annette K. Low, M.D. 601-984-5660</td>
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<tr>
<td>University of Puerto Rico CoE</td>
<td>The CoE provides comprehensive care to underserved women through integrated services. Selected initiatives include a pilot project to develop an epidemiological profile of Hispanic women regarding prevalence of major risk factors for cardiovascular disease.</td>
<td>Delia M. Camacho, Ph.D. 787-758-2525 ext. 2813 whcpr.rcm.upr.edu/</td>
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<tr>
<td>University of Texas Health Sciences Center at San Antonio CoE</td>
<td>The CoE provides comprehensive care to underserved women through integrated services, as well as community outreach and education.</td>
<td>Donald J. Dudley, M.D. 210-567-5035</td>
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<tr>
<td>University of Wisconsin Center for Women's Health &amp; Women's Health Research CoE</td>
<td>The CoE provides comprehensive care to underserved women through integrated services. Selected initiatives include research on women and diabetes, specifically investigating early determinants of atherosclerotic disease in men and women with Type 1 diabetes. The CoE Research Director heads the Wisconsin Diabetes Registry. The CoE provides community-based education on breast and cervical cancer.</td>
<td>Molly Carnes, M.D. 608-267-5566 <a href="http://www.womenshealth.wisc.edu/">www.womenshealth.wisc.edu/</a></td>
</tr>
<tr>
<td>Virginia Commonwealth University CoE</td>
<td>The CoE provides comprehensive care to underserved women through integrated services, as well as community outreach and education.</td>
<td>Susan G. Kornstein, M.D. 804-327-8843 <a href="http://www.womenshealth.vcu.edu/">www.womenshealth.vcu.edu/</a></td>
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<td>West Virginia University CoE</td>
<td>The CoE provides comprehensive care to underserved women through integrated services. Among the services that are offered in a &quot;one-stop shopping&quot; mode are primary care as well as breast imaging, surgical oncology, reproductive endocrinology, maternal fetal medicine, psychiatry, genetics and plastic and reconstructive surgery. Health education and health promotion classes include: weight loss programs, prenatal, smoking cessation, healing touch and massage therapy.</td>
<td>Barbara Ducatman, M.D. 304-293-3212</td>
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<td>National Community Centers of Excellence in Women's Health (CCOEs)</td>
<td>The CCOE program is designed to integrate health services with research and public outreach. The CCOEs work with women in communities to reduce the fragmentation of health care services and the barriers to accessing and receiving high-quality care. An important goal of this program is to eliminate racial, ethnic and gender disparities in health status.</td>
<td>Office on Women's Health (OWH, DHHS), Health Resources and Services Administration (HRSA), Office of Minority Health (OMH, DHHS) 1-800-994-WOMAN <a href="http://www.4woman.gov/owh/CCOE/">www.4woman.gov/owh/CCOE/</a></td>
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<td>Christiana Care Health Services CCOE (Delaware)</td>
<td>Located within one of the mid-Atlantic's largest multi-state private health systems, the center is linking, coordinating and strengthening women's health services in New Castle County, Delaware.</td>
<td>Katherine A. Kolb 302-428-4398 <a href="http://www.christianacare.org">www.christianacare.org</a></td>
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<tr>
<td>Great Plains for Greeley County CCOE (Kansas)</td>
<td>The CCOE provides services for underserved, rural women in west central Kansas and eastern Colorado and is designed to bring improved health care services and provide opportunities for women and young girls to be better informed consumers and benefit from new leadership roles.</td>
<td>Todd Burch 620-376-4221 <a href="http://www.4woman.gov/owh/CCOE/greeley.htm">www.4woman.gov/owh/CCOE/greeley.htm</a></td>
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<tr>
<td>Griffin Hospital CCOE (Connecticut)</td>
<td>Based in a not-for-profit community hospital located in Derby, Connecticut, the CCOE is designed to provide women with comprehensive care and seamless referrals to a network of community providers.</td>
<td>Ramin Ahmadi, M.D., MPH 203-732-1330 <a href="http://www.vwhcc.org">www.vwhcc.org</a></td>
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<tr>
<td>Hennepin County Primary Care Department CCOE (Minnesota)</td>
<td>The CCOE provides health assessments and a supportive health care environment to underserved women in North Minneapolis. The Center serves a population with high levels of domestic and sexual abuse and the highest teen pregnancy and infant mortality rates in the nation, as well as the state's highest rate of sexually transmitted diseases.</td>
<td>Carol Wilson 612-302-4766 <a href="http://www.co.hennepin.mn.us/pchc/ccoepchc.htm">www.co.hennepin.mn.us/pchc/ccoepchc.htm</a></td>
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<td>Jefferson Health System CCOE (Alabama)</td>
<td>The CCOE coordinates services through a consortium of leading public sector health care providers and community-based organizations to integrate, coordinate and strengthen health services for underserved women in Jefferson County, Alabama.</td>
<td>Rowell S. Ashford II, M.D. 205-930-3310 or 3292 <a href="http://www.womenshealthlink.net">www.womenshealthlink.net</a></td>
</tr>
<tr>
<td>Kokua Kaliihi Valley Comprehensive Family Services CCOE (Hawaii)</td>
<td>This CCOE is a community-organized and community-operated non-profit corporation providing direct delivery of primary health care to the medically underserved, as well as health education, social services, elderly and youth services, transportation, outreach, professional education and community advocacy.</td>
<td>Mya Moe Hla, M.D. 808-791-9400 <a href="http://www.KKV.net">www.KKV.net</a></td>
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<tr>
<td>Mariposa Community Health Center CCOE (Arizona)</td>
<td>Empowerment classes are the gateway for women to participate in the Mariposa CCOE program, which aims to empower women to be proactive and informed in regards to their health and well-being. The center offers education classes in nutrition, diabetes, cancer prevention, HIV/AIDS, maternal/child health, tobacco cessation and other areas.</td>
<td>James R. Welden 520-761-2128 <a href="http://www.mariposawomenshealth.com">www.mariposawomenshealth.com</a></td>
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<td>Morton Plant Hospital CCOE (Florida)</td>
<td>The CCOE serves as a model resource center to integrate and coordinate available community social and health care services in order to improve women’s access to comprehensive care. It focuses on the needs of underserved women in Pinellas County, Florida, home to an unusually large population of elderly women.</td>
<td>Joedrecka Brown, M.D. 727-467-2546 <a href="http://www.turleyccoe.org">www.turleyccoe.org</a></td>
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<td>Northeast Missouri Health Council, Inc. CCOE</td>
<td>The CCOE serves 11 rural counties in Northeastern Missouri. It brings together health care providers, educators, researchers and consumers. Working together this team creates a comprehensive health service delivery system for underserved rural women; trains lay and professional health providers on important women’s health issues; advances and promotes participatory community-based research on women’s health; and conducts widespread public education related to key local women’s health issues.</td>
<td>Gina Gilliland 660-627-4493 <a href="http://www.nemohealth.com/wcc/html">www.nemohealth.com/wcc/html</a></td>
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<tr>
<td>NorthEast Ohio Neighborhood Health Services, Inc. CCOE</td>
<td>The CCOE seeks to increase underserved women’s access to clinical services, as well as to empower them with knowledge. Patients served by the CCOE visit the Women’s Empowerment Center before or after their visit with the doctor, where referral to additional services and literature are available through an education specialist.</td>
<td>Kimberly Saunders 216-231-7700 x1089 <a href="http://www.neonhealth.org">www.neonhealth.org</a></td>
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<tr>
<td>Northeastern Vermont Area Health Education Center CCOE</td>
<td>The CCOE serves geographically dispersed rural communities in Vermont. The CCOE brought together providers in different locations to form a network of clinical care to eliminate the barriers preventing underserved women from receiving needed comprehensive services. This CCOE is not a primary health care facility, but has connected resources in the community into a seamless system of care. This is facilitated in part by providing community health workers to assist women and providers to navigate the system.</td>
<td>Margaret H. Trautz 802-748-2506 <a href="http://www.vermontccoe.org">www.vermontccoe.org</a></td>
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<tr>
<td>Oakhurst Medical Centers, Inc. CCOE (Georgia)</td>
<td>The CCOE is a community-based non-profit corporation which provides a full range of quality, affordable and accessible primary health care services to DeKalb County, home to over half of the refugees and immigrants who settle in Georgia. The Center offers career development opportunities for women in the health care arena to increase the number of women health professionals from “at risk” and indigent communities. The Center also offers health education to women, outreach programs, and encourages women to be proactive about their health care.</td>
<td>William A. Murrain, J.D. 404-298-7362 <a href="http://www.4woman.gov/owh/CCOE/oakhurst.htm">www.4woman.gov/owh/CCOE/oakhurst.htm</a></td>
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<td>St. Barnabas Hospital and Healthcare System CCOE (New York)</td>
<td>The CCOE developed an integrated, culturally and linguistically sensitive, accessible health services delivery system for Hispanic and African American women living in the Bronx. It enlists physicians and health care providers to participate in screening and prevention. The CCOE also runs education and outreach for screening programs.</td>
<td>Mildred Allen, Ph.D. 718-960-9358 <a href="http://www.sbccoe.org">www.sbccoe.org</a></td>
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<td>Women’s Health Services CCOE (New Mexico)</td>
<td>The CCOE serves as a central coordinating point and resource center to bring the efforts of service providers, clinicians, researchers, consumers and the government together to improve the health of women throughout Northern New Mexico. The Center aims to eliminate health inequalities.</td>
<td>Justina Trott, M.D. 505-982-8869 <a href="http://www.womenshealthsantafe.com">www.womenshealthsantafe.com</a></td>
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## HRSA Integrated Comprehensive Women's Health Services in State MCH Programs

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<tr>
<th>Title of Program/Contact Person</th>
<th>Main Features</th>
<th>Main Partnerships</th>
<th>Resources Created/Discovered</th>
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<td><strong>Women Enjoying Life Longer (WELL) Program</strong>&lt;br&gt;Diana Cheng, M.D., Center for Maternal and Child Health&lt;br&gt;Maryland Department of Health and Mental Hygiene&lt;br&gt;410-767-6719 <a href="mailto:chengd@dhmnh.state.md.us">chengd@dhmnh.state.md.us</a></td>
<td>Integration of women’s health services into a Title X family planning program (e.g., mental health, nutrition, physical activity, smoking cessation, cholesterol/TSH levels, domestic violence screening and immunization).</td>
<td>1) Baltimore County Department of Health&lt;br&gt;2) Maryland Science Center&lt;br&gt;3) Towson University&lt;br&gt;4) Other programs in state health department&lt;br&gt;5) March of Dimes&lt;br&gt;6) Maryland Network Against Domestic Violence</td>
<td>1) Women's Health Maryland 2002 Databook&lt;br&gt;2) Screening Cards for women&lt;br&gt;3) Medical history cards&lt;br&gt;4) Women's health posters&lt;br&gt;5) Women's Health State Steering Committee&lt;br&gt;6) Resource guide to women's health services (Eastern Baltimore County)</td>
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<td><strong>Incarcerated Women’s Passport to Healthy Families</strong>&lt;br&gt;Janet Schadee RN, MHA, Indiana Women’s Prison Family Preservation Program Director&lt;br&gt;317-639 2671, ext. 214 <a href="mailto:jschadee@iwp.state.in.us">jschadee@iwp.state.in.us</a></td>
<td>Integration of women’s services into Indiana Women’s prison by developing an interagency infrastructure that promotes positive health behaviors and provides linkages to needed community services for the women and their families.</td>
<td>1) Indiana Women’s Prison/Department of Corrections&lt;br&gt;2) Indiana State Department of Health&lt;br&gt;3) Indiana Family and Social Services&lt;br&gt;4) Title X&lt;br&gt;5) Wishard and St. Vincent’s Hospitals&lt;br&gt;6) First Steps, Healthy Families, Head Start and Mental Health Services</td>
<td>1) Comprehensive Incarcerated Women's Passport for Healthy Families case management/tracking system developed to identify, deliver and evaluate health needs of incarcerated women and their children during and after incarceration&lt;br&gt;2) On site Family Planning/Family Care Coordination service developed enrollment of children into many needed services by mother while incarcerated</td>
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<td><strong>Comprehensive Health Care for Women Across the Lifespan</strong>&lt;br&gt;Mary Jo Borden RN, WHCNP, PHN&lt;br&gt;Family Health Division&lt;br&gt;Minnesota Department of Health&lt;br&gt;651-284-0601 <a href="mailto:maryjo.borden@health.state.mn.us">maryjo.borden@health.state.mn.us</a></td>
<td>Integration of women’s health into maternal child health with a focus on rural and urban women of color. Grant objectives include decreased barriers to and increased utilization of primary health services for rural Latinas and urban African American and African immigrant and refugee women.</td>
<td>1) Open Door Health Center, Mankato&lt;br&gt;2) Saludando Salud Mankato&lt;br&gt;3) Immanuel St. Joseph’s Mayo Health Systems, Mankato&lt;br&gt;4) Minnesota State Colleges and University System/Health Education Industry Partnership&lt;br&gt;5) Southside Community Health Services, Minneapolis</td>
<td>1) Best Practice Literature review - tools and process&lt;br&gt;2) Summary of literature best practice review transitioned to brief cultural competency guide&lt;br&gt;3) Relationship with Minnesota Black Nurses Association&lt;br&gt;4) MDH interdisciplinary Women’s Health Team</td>
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<td><strong>Integrated Women’s Health Program: Women’s Ohana Council</strong>&lt;br&gt;Maternal and Child Health Branch&lt;br&gt;Hawaii state Department of Health&lt;br&gt;808-733-9022 <a href="mailto:momi.kamau@fhsd.health.state.hi.us">momi.kamau@fhsd.health.state.hi.us</a></td>
<td>Promotes an integrated approach to women’s health and wellness in the DOH as well as with community partners. The Woman’s Ohana Council with representatives from a variety of DOH programs meets with the MCH component regularly to build on existing collaboration and activities within and outside of the Department. This brings a focus to women’s health in contract as well as other activities and has created joint activities and actions in the department.</td>
<td>1) Hawaii State Department of Health - Variety of DOH programs across administrations, including Mental Health, Chronic Disease, Public Health Nursing, Substance Abuse, Family Planning, Perinatal Support and Child Abuse Office of Health Equity.&lt;br&gt;2) External Partners&lt;br&gt;a. Kapiolani Women’s Center/ Women’s Health Initiative&lt;br&gt;b. Primary Care Association&lt;br&gt;c. ACOG-Dr. Cynthia Goto&lt;br&gt;d. Community representatives from Violence Initiative and Native Hawaiian programs</td>
<td>1) Women’s Health Community Conference with a focus on services, 2002&lt;br&gt;2) Women’s Health Data Conference, 2003&lt;br&gt;3) Women’s Health Data Book, 2002&lt;br&gt;4) Women’s Health Data Book in development for 2004&lt;br&gt;5) Initiated May Women’s Health Month Activities, (Hawaii traditionally observes September as Women’s Health Month)&lt;br&gt;6) Convened statewide policy committee&lt;br&gt;7) Resource list in development&lt;br&gt;8) Website in development (to be attached to MCH Branch)</td>
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<td>Texas Comprehensive Women’s Health Initiative (TxCWHI) Chan McDermott, MPA Bureau of Women’s Health Texas Department of Health 512-458-7796 <a href="mailto:chan.mcdermott@tdh.state.tx.us">chan.mcdermott@tdh.state.tx.us</a></td>
<td>Development of the Women’s Health Network at TDH to promote a comprehensive approach to women’s health within the state health agency. Facilitating the development or enhancement of comprehensive women’s health systems in two border health regions, through the creation of Women’s Resource Coordinating Groups.</td>
<td>1) All programs with a women’s health component at TDH 2) Texas Commission on Alcohol and Drug Abuse 3) Center for Health Training 4) Public Health Region 10 5) Public Health Region 11 6) Entities in local women’s health systems in regions (to be determined)</td>
<td>1) TDH Women’s Health Network 2) Regional Women’s Health Networks 3) Women’s Health promotional materials (to be developed) 4) Centering Pregnancy, Sharon Rising, R.N. 5) Training on facilitation, team building, conflict resolution, strategic planning (to be developed) 6) Project on Family Violence 7) TxCWHI Manual (to be developed).</td>
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<td>Integrated Comprehensive Women’s Health Services in State MCH Programs Tammy Nazarko, Women’s Health Coordinator Bureau of Women’s Health New York State Department of Health 518-474-5035 <a href="mailto:tnn02@health.state.ny.us">tnn02@health.state.ny.us</a></td>
<td>Integration of women’s health services throughout the many programs serving women in the NYSDOH, to improve women’s health prevention efforts and services throughout NYS, through improved coordination and integration at multiple levels (e.g. public benefit programs, health risk reduction programs, chronic disease prevention and adult health programs, child and adolescent health programs, MCH programs, rape crisis program, STD and HIV prevention programs).</td>
<td>1) Family Planning Advocates of NYS 2) Association of Perinatal Networks 3) Association of Regional Perinatal Programs and Networks 4) NYS Coalition Against Sexual Assault 5) American College of Obstetrics and Gynecologists 6) American Cancer Society 7) Greater Capital Region Community Coalition for Diabetes 8) March of Dimes</td>
<td>1) NYS Women’s Health Program Directory 2) NYS Women’s Health Data Profile Book 3) Internal Department Women’s Health Workgroup 4) Integrated Women’s Health Services display board</td>
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<td>Alaska Women’s Comprehensive Care Improvement Project Kelly Keeter, MPH State of Alaska, DHSS Division of Health Care Services 907-269-3461 <a href="mailto:Kelly.keeter@health.state.ak.us">Kelly.keeter@health.state.ak.us</a></td>
<td>Effecting change on 2 levels: 1) Improving Direct Services Development of a comprehensive model of health care for women that is adaptable to any clinical setting; and 2) Implementing Programmatic Changes: unification of existing programs for women in public and private health and social services to create a streamlined, collaborative infrastructure to raise the health status of Alaska women</td>
<td>1) Anchorage Neighborhood Health Center 2) Other WH programs in State of AK, DHSS 3) AK Primary Care Association 4) AK Diabetes Association 5) AK Native Medical Center 6) Planned Parenthood of AK 7) Municipality of Anchorage 8) Private Native Health entities</td>
<td>1) “Women’s Comprehensive Care Improvement” 2) Statewide women’s health Information and Referral web-based database and toll-free telephone line 3) Alaska-specific women’s health journal and calendar 4) Alaska Maternal and Child Health Databook (2003).</td>
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<td><strong>Assuring Women’s Access to Health Resources (AWARe)</strong> Janet L. Peterson, RN, BSN, MBA, MHA Iowa Department of Public Health (IDPH) 515-242-6388 <a href="mailto:jpeterso@idph.state.ia.us">jpeterso@idph.state.ia.us</a></td>
<td>1) Strengthen the state-level infrastructure for women’s health at IDPH; 2) Improve women’s access to health information by enhancing existing resources; and 3) Develop best practices for influencing women’s health behaviors through improving women’s health literacy</td>
<td>1) Within IDPH: HRSA-funded programs; CDC-funded programs 2) Statewide: Title V and Title X contractors 3) Women’s Health Committee: variety of professionals and consumers, female and male, and ethnicities</td>
<td>1) Enhanced the existing Maternal Health database and renamed it Women’s Health Information System (this system uses Microsoft Access software) 2) IDPH Women’s Health Team 3) Women’s Health Committee</td>
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<td><strong>Coordinated Women’s Health in Maine: A Policy and Program Approach</strong> Sharon Leahy-Lind Women's Health Coordinator Bureau of Health, Maine Department of Human Services SHS #11, Key Bank Plaza, 7th Floor, Augusta, Maine 04333 207-287-4577 <a href="mailto:Sharon.leahy-lind@maine.gov">Sharon.leahy-lind@maine.gov</a></td>
<td>Sustainable public private partnerships will support coordinated and comprehensive systems of health care for Maine women, and women’s health will improve across the lifespan through delivery of coordinated and comprehensive services by 1) Developing structures and processes to enhance coordination and collaboration among stakeholders in women’s health 2) Creating administrative structures to coordinate and implement policies to support comprehensive women’s health services 3) Identifying, piloting and institutionalizing models to provide coordinated and comprehensive women’s health across categorical programs</td>
<td>1) All programs and departments within the Maine Bureau of Health 2) Maine Department of Corrections 3) Maine Department of Behavioral and Developmental Services 4) Family Planning Association 5) Maine Women’s Health Campaign 6) Bureau of Health grantees deliver women’s health services</td>
<td>1) Interdepartmental Women’s Health Committee 2) Health Services Task Force 3) Consumer Satisfaction Interventions for Pilot Sites 4) Consumer Satisfaction Survey 5) Women’s Health Fact Bookmarks 6) Consumer self-advocacy Pocket cards and clipboard covers 7) Logic model for women’s health services for the Bureau of Health 8) Core set of health indicators for gender-based analysis and framework for the Bureau of Health 9) Caregiver’s Survey</td>
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| **Collaboration, Facilitation and Integration (CFI) Project**  
Evelyn Wilson, RN, BSN, MPA  
Healthy Communities & School Unit  
Missouri Department of Health and Senior Services  
573-751-6215  
WilsoE@dhss.mo.gov | 1) Workforce development of local public health agencies to strengthen system capacity  
2) Workforce development of regional consultants that provide assistance to local public health agencies  
3) Application of the MCH Ten Essential Services tool to assess infrastructure and service integration in all Missouri counties | 1) Missouri local public health agencies (115)  
2) University of Missouri, Sinclair School of Nursing  
3) Saint Louis University, School of Public Health  
4) Other programs in the State health department | 1) Discussion model for assessing local capacity to support the MCH Ten Essential Services  
2) Workshop on building and strengthening effective local coalitions and work groups  
3) Workshop on the keys to effective group functioning to make change on public health issues  
4) Workshop on the processes of social marketing to influence behavior change at the individual, community and system levels  
5) Workshop on the use of the causal diagram to plan and evaluate community-based interventions |
| **Pass Key to Women’s Health**  
Janice Mirabassi, MA  
Office of Women’s Health Policy  
Massachusetts Department of Public Health  
250 Washington St., 5th floor  
Boston, MA 02108-4619  
617-624-5905  
janice.mirabassi@state.ma.us | Integration of life span approach to women’s health initially across programs of the Bureau of Family and Community Health; subsequently with programs in other DPH Bureaus (e.g., Substance Abuse, HIV/AIDS). Establishment of Office of Women’s Health Policy to “broker” internal and external collaboration and partnerships. | 1) Multiple programs and bureaus within the state health department  
2) Cambridge Health Alliance (women’s health internship program for medical residents)  
3) Jane Doe, Inc. (DV and Rape Crisis provider network)  
4) State and Territorial Women’s Health Coordinators Group  
5) State-wide professional and advocacy groups, policy and research organizations (e.g., Brigham & Women’s Hospital - Connors Center for Women’s Health) | 1) Pass Key Working Group  
2) Women’s Health Report Steering Group and E-mail Work Group  
3) Interview Tool: Pass Key Pilot Communities  
4) Pass Key Matrix Grid  
5) Massachusetts Women’s Health Report [in process]  
6) Inter-Bureau working groups on homeless women and families, obesity and healthy weight |
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