Show Me Healthy Women Program

Executive Summary

Cancer is a multifaceted disease that is influenced by different variables including environment, lifestyle, hormones, and genetic factors. Breast cancer and cervical cancer are among the most common cancers in women. Breast and cervical cancer screening programs, like Show Me Healthy Women (SMHW), aim to reduce mortality and morbidities associated with advanced stages of the disease by providing early access to effective diagnostic and treatment services in low-income and underserved populations.

Highlights

- In Missouri, the incidence rates of breast cancer and cervical cancer are 133.4 cases per 100,000 women and 8.2 cases per 100,000 women, respectively.
    - Minority, rural, and low-income populations have a higher risk of cancer incidence and mortality.
- In 2015, SMHW provided cancer screening services for approximately 12% of the estimated 101,100 eligible women.
- Mammography and primary HPV tests are the "gold standards" for assessing breast and cervical cancer, respectively. Recommendations for routine breast and cervical cancer screenings vary between medical organizations.
- State legislation has focused on providing insurance coverage for preventive and follow-up exams for all women.

Limitations

- States vary in their implementation of the National Breast and Cervical Cancer Early Detection Program. Best practice considerations from other states and guidelines for eligibility vary in the ability to serve women.
- State legislation has improved access to cancer screenings and treatment, but little progress has been made reducing social health disparities or improving overall health outcomes for women.

Research Background

Show Me Healthy Women Program (SMHW)

In Missouri, the incidence rates of breast cancer and cervical cancer are 133.4 cases per 100,000 women and 8.2 cases per 100,000 women, respectively.[1] This is compared to 126.8 cases per 100,00 women and 7.7 cases per 100,00 women for breast and cervical cancer, respectively, across the United States.[1]

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The Show Me Healthy Women (SMHW) program was developed in 1992 and is Missouri's implementation of the National Breast and Cervical Cancer Early Detection Program (NBCCEDP).[2] SMHW offers various medical services including free breast and cervical cancer screenings (e.g., mammograms, Pap tests, HPV tests); follow-up for abnormal screening results, including re-screening, diagnostic procedures, and treatment; and free transportation to appointments.[2]

Women who receive a screening or diagnosis from SMHW services and warrant treatment for breast cancer, cervical cancer, or a precancerous condition may be eligible for MO HealthNet (Medicaid) benefits and medical services for cancer care under the Breast and Cervical Cancer Treatment Act (RSMo 208.151).[2] SMHW Program services are available in 83 counties and the City of St. Louis. Provider locations include local public health agencies, hospitals, private physician offices, and nonprofit health centers.

Eligibility

To receive screening services through the NBCCEDP, a woman must be uninsured or underinsured and have an income equal to or less than 250% of the federal poverty level ($32,200 for one individual; +$4,540 for each additional member in a household).[3] Women aged 21-64 years old who meet these requirements are eligible to receive cervical cancer screening and diagnostic services. Eligible women aged 40-64 years old may receive breast cancer screening services. Within these national guidelines, each state has the flexibility to implement the program that is unique to their state.[3]

The SMHW Program is open to Missouri uninsured or underinsured women ages 35-64 years old who have a household income at or below 200% of the federal poverty level ($25,760 for one individual; +$4,540 for each additional member in a household).[2] Women older than 64 years old may be eligible if they do not receive Medicare Part B.

All women who meet the eligibility criteria receive cervical cancer screening and diagnostic services. However, additional age guidelines are used for breast cancer screenings. Women aged 50-64 years old are eligible for a clinical breast exam and mammography. Women aged 35-49 years old are eligible for mammography only if the clinical breast exam results suggest cancer incidence. Women are not eligible if they already have a breast or cervical cancer diagnosis or if they are currently receiving treatment for breast or cervical cancer.[2]

Neighboring states' implementations of NBCCEDP have different eligibility requirements than those imposed in Missouri. For example, Iowa's Care For Yourself – Breast and Cervical Cancer Program is open to women over 40 years old who have household incomes below 250% of the federal poverty level.[4] The Illinois Breast and Cervical Cancer Program is eligible for women 35-64 years old who have no insurance. There is no financial criteria for eligibility and those who receive cancer diagnoses outside the program are still eligible for services.[5]

The Centers for Disease Control and Prevention (CDC), in addition to national, regional and local partner organizations, fund the SMHW program. Research indicates that women receiving

services from NBCCEDPs represent only a small fraction of the women who meet the eligibility criteria based on age, income, and health insurance status.[6] Due to funding levels, SMHW provided cancer screening services for approximately 12% of the estimated 101,100 eligible women in 2015.[7] Approximately 200 breast cancers and 70 to 90 cervical cancers are identified and referred for treatment each year.[7]

Breast and Cervical Cancer Screenings and Diagnostic Tests

Mammography and primary HPV tests are considered the "gold standards" for assessing breast and cervical cancer, respectively.[8,9] Governing bodies and medical organizations such as the CDC, United States Preventive Service Task Force (USPSTF), American College of Obstetricians and Gynecologists (ACOG), American Cancer Society (ACS), and National Comprehensive Cancer Network (NCCN) have slightly different recommendations for routine breast (**Table 1**) and cervical cancer screenings (**Table 2**) in average-risk women.[10-15] The ACS recommends that women considered high risk (e.g., BRCA gene mutation, family history, etc.) initiate mammography starting at the age of 30.[14]

Both breast and cervical cancer screenings are found to be cost-effective and outweigh the cost of cancer care.[16] One barrier to utilizing primary HPV tests versus standard HPV tests is that they are not yet widely accessible due to recent FDA approval, and they require non-standard laboratory procedures.[12,17] A primary HPV test can be done alone, whereas the standard HPV test is approved as a co-test with additional cytology testing (i.e., Pap test). While ACS recommends phasing out cytology-based screening options, ACOG and USPSTF recommend cytology combined with standard HPV testing.[12] The SMHW provider manual recommends cytology every three years or cytology combined with HPV testing every five years.[2]

Social Determinants of Health

Social determinants of health are the conditions in which people are born, live, and age, which affect a multitude of health risks and quality-of-life outcomes. These include: the availability of resources to meet daily needs (e.g., food security and housing), access to health care services, insurance coverage, education, and discrimination.[18] Minority populations are more likely to live in under-resourced communities and experience discrimination. Social health inequities create barriers to accessing appropriate cancer screening and diagnostic procedures, increase the risk of developing cancer, and lead to poorer cancer outcomes in treatment and survival.[18]

Social disparities in breast and cervical cancer incidence and mortality exist, despite improvement in prognosis and outcomes. White women are more likely to be diagnosed with breast cancer compared to Black women. However, Black and Hispanic women have higher incidences of cervical cancer compared to White women.[19] The risk of dying from breast and cervical cancer is higher for minority women compared to White women.[19] Women living in rural areas may experience barriers to accessing services for cancer prevention, early detection, and treatment compared to women living in urban areas.[18] Furthermore, research indicates women of all

socioeconomic statuses have the same risk for developing breast cancer, yet mortality rates remain higher in those of low socioeconomic status.[20]

Poverty in Missouri

Poverty disproportionately affects women and ethnic minorities.[21] In 2019, 14.4% of women had incomes below the poverty line compared to 11.9% of men.[22] Approximately 26% of Black women are living in poverty compared to 11.3% of White women.[22]

State Legislation

Legislation at the state level has focused on providing preventive insurance coverage, including follow-up testing coverage, for all women. Since 2019, five states (AK, CO, IL, LA, and TX) have passed legislation requiring health insurance companies to cover cancer screenings and diagnostic breast imaging, including any necessary follow-up testing.[23] Nevada requires health providers to screen women with histories of cancer for certain gene mutations that predispose an individual to developing cancer and to provide genetic counseling and testing at no cost.[23] Illinois and Louisiana require health plans to cover biomarker testing that detects genes, proteins, and other information about a person's cancer to identify individualized treatments.[23] Lastly, Tennessee implemented legislation to require prisons and correctional centers to offer incarcerated women mammograms and consultations for breast cancer.[23]

Screenings are only effective if they are utilized.[23,24] To address this, in addition to legislation, local public health agencies in Michigan and Ohio have standardized practices to send reminders (e.g., postcards, letters, phone calls) to women that are due for their next screening.[24] These efforts resulted in 15% more Ohio women getting screened through the program, and 37% of Michigan women who received the postcard scheduled an appointment.[24] Additionally, Florida and South Carolina NBCCEDPs have developed partnerships with diverse community organizations to help reach women in under-resourced communities.[24]

Table 1. Recommendations for Breast Cancer Screening in Average-Risk Women

	ACOG	USPSTF	ACS	NCCN
Clinical Breast Examination	May be offered every 1-3 years for women aged 25-39 years old. Offered annually for women 40 years and older	Not enough evidence to make a recommendation	Does not Recommend	Recommend every 1-3 years for women aged 25-39 years old. Recommend annually for women 40 years and older
Mammography Initiation Age	Offer starting at age 40 Initiate at ages 40-49 years after counseling, if patient desires Recommend by no later than age 50 if patient has not initiated	Recommend at 50 years old. To start mammography before 50 years old is an individual decision	Offer at 40-45 years old Recommend at age 45 years old.	Recommend at 40 years old
Mammography Screening Interval	Annual or Biennial	Biennel	Annual for women 40-54 years old Biennel for women 55 years and older (with annual option)	Annual
Mammograpy Stop Age	Continue until 75 years old. Continuation after 75 years old is based on shared decision-making that includes a discussion of the woman's health status and longevity	Current evidence is insufficient to assess the benefits and harms of mammography after 75 years and older.	when life expectancy is 10 years	Severe comorbidities limit life expectancy to 10 years or less

Note. ACOG: American College of Obstetricians and Gynecologists; USPSTF: United States Preventive Services Task Force; ACS: American Cancer Society; NCCN: National Comprehensive Cancer Network. Table adopted and modified from ACOG.[10-15]

Table 2. Recommendations for Routine Cervical Cancer Screening

Population	ACOG	USPSTF	ACS
< 21 years old	no screening	no screening	no screening
Aged 21- 29 years old	cytology alone every 3 years	cytology alone every 3 years	Screening should begin at 25 years old following guidelines for 30-65 year olds.
Aged 30 - 65 years old	any one of the following: Cytology alone every 3 years FDA-approved Primary HPV tesing alone every 5 years Co-testing (hrHPV testing and cytology) every 5 years	any one of the following: Cytology alone every 3 years FDA-approved Primary HPV tesing alone every 5 years Co-testing (hrHPV testing and cytology) every 5 years	any one of the following: Cytology alone every 3 years FDA-approved Primary HPV tesing alone every 5 years Co-testing (hrHPV testing and cytology) every 5 years
> 65 years old	no screening after 3 negative cytology only results and 2 primary and co-testing results	no screening after 3 negative cytology only results and 2 primary and co-testing results	regular screening results that are all normal over in the past 10 years can stop
Hysterectomy with cervix removal	no screening in individuals who do not have a history of high-grade cervical precancerous lesions or cervical cancer	no screening in individuals who do not have a history of high-grade cervical precancerous lesions or cervical cancer	can stop screening unless the removal was for treatment of cervical cancer or serious pre-cancer

Note. ACOG: American College of Obstetricians and Gynecologists; USPSTF: United States Preventive Services Task Force; ACS: American Cancer Society. These recommendations are for all women, incluiding those who have received the HPV vaccine. Table adopted and modified from ACOG and ACS.[10-15]

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