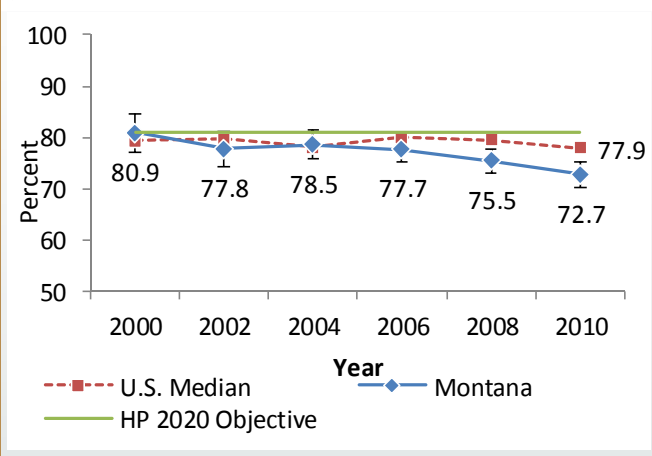




Breast Cancer Screening : Recent trends in mammography utilization in Montana

Figure 1. Percent of women aged 50 to 74 years who reported having had a mammogram within the past two years, Montana and United States, BRFSS 2000-2010



Report Highlights

- One in four women were not up-to-date with breast cancer screening in 2010.
- The percentage of women up-to-date with mammography decreased significantly in Montana from 2000 to 2010.
- “Didn’t feel I needed it” was the leading reason women cited for not having a mammogram in the past two years .

Breast cancer is the most commonly diagnosed cancer among women in Montana and in the United States.^{1,2} In 2009, approximately 750 women were diagnosed with the disease in Montana.¹ Breast cancer is the second leading cause of cancer death among women in Montana.³ Fortunately, breast cancer can be detected at an early stage when the disease is most treatable. Early diagnosis and more effective treatment have been credited with the decline in breast cancer mortality in recent years.⁴

Mammography is a minimally invasive procedure that can detect breast tumors at an early stage. Research has shown that breast cancer screening via mammography reduces mortality.⁵ The U.S. Preventive Services Task Force (USPSTF) recommends that women aged 50 to 74 years receive a screening mammogram every two years.⁵ For women aged 40 to 49 years, the USPSTF recommends that they discuss when and how often to screen for breast cancer with their healthcare provider.⁵ The USPSTF does not recommend screening women 75 years or older because there is inadequate evidence to determine the risks and benefits of mammography for women of this age.⁵

The proportion of women in Montana aged 50 to 74 years who reported receiving a mammogram within the past two years has decreased significantly from 80.9% in 2000 to 72.7% in 2010 (Figure 1). This means that more than one in four women in this age group are not up-to-date with mammograms. This decline is concerning because delays in diagnosis may result in an increase in the incidence of late-stage breast cancer and breast cancer mortality in future years.

This surveillance report assesses demographic factors associated with adherence to USPSTF mammography screening guidelines and reported reasons why women aged 50 to 74 years have not received a mammogram within the previous two years. This report also examines breast cancer incidence and stage at diagnosis over the past 30 years in Montana.

Characteristics Associated with Adherence to Mammography Guidelines

Table. Percent of women aged 50 to 74 years who reported having had a mammogram within the past two years by demographic characteristics, Montana, BRFSS 2000 & 2010

	2000 % (95% CI)	2010 % (95% CI)	Total Change
Total	80.9 (77.2-84.6)	72.7 (70.3-75.1)	-8.2% [‡]
Age Group (years)			
50-64	79.5 (74.6-84.4)	71.3 (68.3-74.2)	-8.2% [‡]
65-74	83.5 (77.7-89.4)	76.6 (72.9-80.4)	-6.9%
Race			
White	77.7 (74.3-81.2)	73.0 (70.6-75.5)	-9.0%
American Indian	—	72.5 (63.8-81.1)	—
Education			
High school graduate or less	76.0 (69.7-82.3)	65.2 (60.8-69.6)	-10.8% [‡]
Some college or college graduate	84.8 (80.2-89.3)	76.5 (73.7-79.2)	-8.3% [‡]
Household Income			
<\$15,000	—	58.8 (51.3-66.3)	—
\$15,000- \$34,999	74.0 (66.5-81.6)	68.2 (63.3-73.2)	-5.8%
\$35,000- \$49,999	92.7 (87.9-97.5)	69.3 (63.4-75.0)	-23.4% [‡]
≥ \$50,000	85.6 (76.2-95.0)	81.0 (77.4-84.5)	-4.6%
Health Insurance*			
Yes	83.1 (79.3-86.8)	76.2 (73.8-78.6)	-6.9% [‡]
No	—	47.7 (39.8-55.7)	—
Personal healthcare provider			
One	NA	78.3 (75.9-80.7)	—
More than one	NA	75.8 (67.7-83.9)	—
None	NA	36.2 (28.9-43.5)	—

‡ Statistically significant change from 2000 to 2010; 95% confidence intervals do not overlap

— Insufficient data; too few respondents in a given category or variance too large to yield a stable estimate.

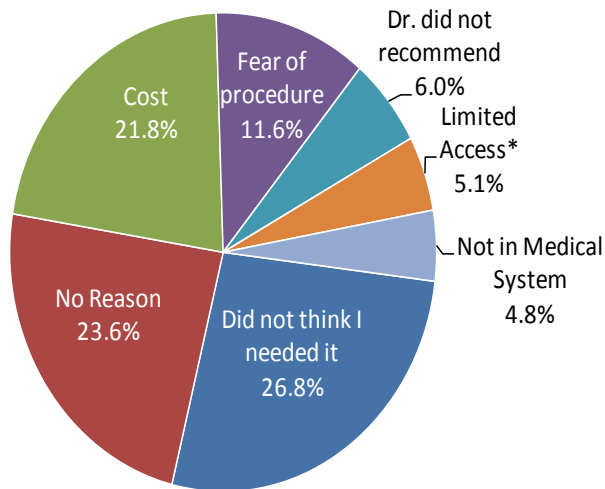
* Includes health insurance, prepaid plans such as HMOs, or government plans such as Medicare.

NA Information was not collected during this survey year.

- The national Healthy People 2020 objective for breast cancer screening is 81.1% of women are up-to-date with screening based on the most recent guidelines.⁶
- In 2010, Montana did not meet the Healthy People 2020 objective following the USPSTF breast cancer screening guideline.
- The percent of women who reported being up-to-date with breast cancer screening decreased significantly from 2000 to 2010 among the following demographic groups (Table):
 - Age 50-64 years
 - High school graduate or less
 - Some college or college graduate
 - Annual income between \$35,000-\$49,999
 - Have health insurance

Reasons for No Mammogram

Figure 2. Primary reason women aged 50 to 74 have not had a mammogram in the past two years, Montana, BRFSS 2010



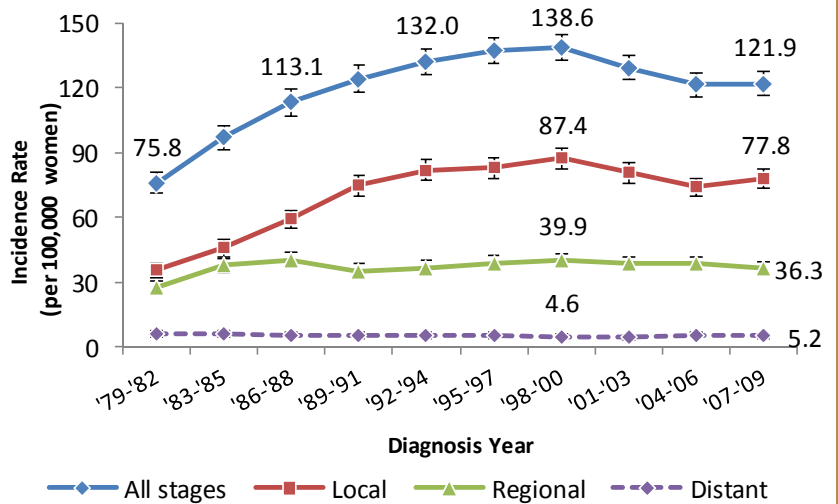
- The leading reasons for not being up-to-date with breast cancer screening were “Did not think I needed it,” “No reason,” and “Cost” (Figure 2).
- Many women whose responses were categorized as “Did not think I needed it” cited reasons such as too young or too old for a mammogram.

* Limited access includes distance, too long a wait for an appointment, no transportation, no access for people with disabilities, etc.

Breast Cancer Incidence & Stage at Diagnosis

- The incidence of invasive breast cancer cases has decreased in Montana in the past decade.
- The age-adjusted breast cancer incidence peaked during the three-year period 1998 through 2000 at 138.6 cases per 100,000 women.
- Recently the age-adjusted breast cancer incidence was 121.9 cases per 100,000 women in 2007 through 2009 (Figure 3).
- The age-adjusted incidence rates of breast cancers diagnosed at later stages (regional or distant) have not changed significantly in the past decade.

Figure 3. Age-adjusted breast cancer incidence rate[†] by stage, Montana Central Tumor Registry, 1979-2009



[†] Invasive cases only. Incidence rates are per 100,000 women age-adjusted to the 2000 Standard Million population.

Recommendations

- Health care providers should recommend breast cancer screening at every visit to women between 50 and 74 years who are not up-to-date with screening mammography.
- Primary care practices should remind their clients that they are due for cancer screening via written or telephone messages.⁷
- Free or reduced cost mammograms are available to eligible women who meet certain age and financial guidelines. For more information please contact the Montana Cancer Screening Program at www.cancer.mt.gov or Mark Wamsley at (406) 444-0063.

Methods & Analysis

Data from the Behavioral Risk Factor Surveillance System (BRFSS) were used to assess mammography.⁸ Data analysis was limited to women between the ages of 50 and 74 years. Respondents who had not had a mammogram within the past two years were asked “What is the main reason you have not had a mammogram?”, which was an open-ended question. The interviewer did not read possible responses and coded the first reason volunteered by the respondent.

Breast cancer incidence data came from the Montana Central Tumor Registry. Data analysis was limited to females, Montana residents, and invasive cases.

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1400 Broadway, Room C-317
PO Box 202951
Helena, MT 59620-2951
www.cancer.mt.gov

For more information contact:

Laura Biazzo, MPH
Epidemiologist
(406) 444-0064
lbiazzo@mt.gov