



Mammography Among Utah Women: A 2023 Update

Setting the Stage

Breast cancer is the second leading cause of cancer death for women in the United States (US)¹ and the leading cause of cancer death for women in the state of Utah.² One in eight women in the US will develop breast cancer in her lifetime.³ Mammography has been shown to reduce breast cancer mortality⁴ and thus is a critical screening tool that can increase the chance of early detection and treatment.

However, despite the advantages of mammography screening, not all women receive screenings according to recommended guidelines.⁵ According to the Utah Department of Health and Human Services, Utah did not meet its goal of 76.0% of Utah women aged 40 or older being screened for breast cancer by 2020.⁶ Data from the latest Behavioral Risk Factor Surveillance System (BRFSS) survey placed Utah among the three lowest states for breast cancer screening rates in women aged 40 years or older.⁷ Only 62.7% of Utah women in this age group reported having a mammogram in the last two years.⁸ In comparison, the average screening rate for US women in the same group was 69.0%.

This report charts current Utah mammography rates, updating a [2017 research snapshot](#) published by the Utah Women & Leadership Project (UWLP). This brief includes new data from the Utah Department of Health's Public Indicator Based Information System (IBIS) and the 2020 BRFSS Survey; it also highlights the Utah Cancer Action Network's (UCAN) current strategic plan and target goals. The snapshot presents three significant areas:

- 1) An overview of breast cancer and mammography rates for women in Utah, including various demographic factors,
- 2) An analysis of some of the issues contributing to lower breast cancer screening rates in Utah, and
- 3) A discussion of what Utahns can do to improve mammography rates, with links to relevant resources.

Mammography by the Numbers

Breast cancer incidence rates are lower in Utah (113.3 per 100,000 in 2020)⁹ than in the US (129.7 per 100,000 in 2019).¹⁰ During the past two decades, breast cancer incidence rates have declined in Utah (from 120.8 per 100,000

in 2000) and the US (from 132.7 per 100,000 in 2000).¹¹ Regarding mammography, the rate of Utah women aged 40 years or older who reported receiving a mammogram in the last two years increased from 1989 (51.6%) to 2008 (66.4%).¹² Using a new methodology, the screening rates dropped from 64.5% in 2010 to 62.7% in 2020; however, this change was not statistically significant.¹³ The peak occurred in 2012 (68.0%). During the last 40 years, there was only one measurement period (1994) when Utah's screening rates surpassed the US rate. Otherwise, the state's screening rates have always fallen below the US rates.¹⁴

Several factors may be associated with mammography screening rates, including age, ethnicity and race, income, and education. Table 1 (on the next page) provides mammography rates pertaining to each of these factors based on IBIS data. Summary statements are also provided, including information about mammography rates by location and cancer survivor status. All data pertain to women aged 40 or older unless otherwise specified.

Utah is among the three lowest states for mammography screening rates in women aged 40 years or older.

Age: From 2019 to 2020, women aged 40 to 49 were significantly less likely to have received a mammogram compared to women in older age groups.¹⁵ The rates are similar to those reported in the 2017 snapshot,¹⁶ but the current rates of the two older groups have since slightly decreased.

Ethnicity/Race: In 2020, there was no significant difference in mammography rates between women who identified as either Hispanic or Non-Hispanic.¹⁷ From 2018 to 2020, White women (62.8%) had the lowest mammography rates compared to other races.¹⁸ The largest change from the previous report is that screening rates of American Indian/Native Alaskan women increased 10.9%.¹⁹

Income: From 2019 to 2020,²⁰ the pattern of mammography rates by income remained similar to the 2017 snapshot.²¹ Higher income was associated with higher mammography rates. For women in the lowest income group, rates increased 4.0% from the previous report.²²

Education: Similarly, higher education was associated with higher mammography rates. For women with a high school diploma or General Education Development (GED) certificate, rates of mammography decreased 4.1% from the previous report.²³

Table 1. Utah Mammography Rates by Women’s Demographic and Personal Factors

Category	%
Age (2019–2020)	
40-49	52.8%
50-64	68.9%
65 or Older	69.8%
Ethnicity (2020)	
Hispanic	68.4%
Non-Hispanic	62.0%
Race (2018–2020)	
Asian	72.5%
American Indian/Native Alaskan	64.6%
Black	72.4%
Pacific Islander	79.8%*
White	62.8%
Two or More Races	66.9%
Income (2019–2020)	
< \$25,000	56.3%
\$25,000–\$49,999	59.4%
\$50,000–\$74,999	62.9%
\$75,000+	69.0%
Education (2019–2020)	
Less than High School	55.6%
High School Grade or GED	59.3%
Some Post High School	62.2%
College Graduate	69.1%

* This estimate had a high coefficient of variation and should be interpreted with caution.

Location: In 2020, the same local health districts as the original snapshot had the highest and lowest mammography rates.²⁴ Summit reported the highest mammography rates (69.5%), and TriCounty reported the lowest rates (47.2%).²⁵ However, these rates decreased from the previous report; Summit’s rates were 6.2% lower, and the TriCounty rates were 5.3% lower. Among small areas in Utah, the Ivins/Santa Clara area reported the highest mammography rates (86.7%), while the Glendale area of Salt Lake City reported the lowest rates (36.9%). The Riverdale and Grand/San Juan areas had the highest and lowest rates in the 2017 snapshot, respectively.²⁶ The Utah Department of Health and Human Services has developed the Health Improvement Index (HII)²⁷ to assess which small areas in Utah have greater health disparities.²⁸ Interestingly, mammography rates were higher in small areas with lower health disparities: 68.9% in very low health disparities areas, 62.1% in low areas, 67.5% in average areas, 57.6% in high areas, and 56.2% in very high health disparities areas.

Utah Cancer Survivors: A recent study examined cancer screening adherence among Utah adults who had been diagnosed with various forms of cancer from 2012 to 2018. For those age-eligible for breast cancer screening, 74.4% had gotten a mammogram in the last two years.²⁹ Although this is above the state average of 62.7%,³⁰ a large gap in screening rates still exists, even among cancer survivors.

Factors Contributing to Non-Adherence

The 2017 snapshot identified numerous reasons why Utah women may not adhere to screening recommendations, including time constraints, family size, education, level of health literacy, and lack of a primary care provider. These factors are still relevant in 2023, and a more detailed explanation can be found [here](#). Additional barriers affecting women’s likelihood of scheduling regular mammograms appear below.

Insurance Coverage and Financial Concerns: In 2014, approximately 14.1% of Utah adults were unable to receive needed healthcare in the previous year due to cost.³¹ This percentage decreased to 10.3% in 2020, which is slightly below the national average of 11.2% in the same year.³² However, Utah adults with low incomes had an age-adjusted rate of 23.6%, and those without health insurance reported 28.3%,³³ indicating that cost and access to affordable health insurance are important factors that influence whether individuals receive needed healthcare.

A 2019 study suggested that barriers to screening adherence may be unique among different income level groups, even when women have health insurance.³⁴ Women with higher income levels were more likely to identify forgetting to schedule an appointment or lack of time as a barrier, while women with lower income cited financial difficulty and a lack of screening recommendation from a physician as more common barriers.

Mammography Guidelines: A discrepancy between mammography guidelines may be another factor that contributes to non-adherence, as Utah women aged 40 to 49 have a significantly lower screening rate than older Utah women.³⁵ Until recently, the US Preventative Services Task Force recommended biennial screening from 50 to 74 years of age and left it up to individual women to decide whether to start screening earlier.³⁶ New draft recommendations indicate that women should be screened every other year starting at age 40.³⁷ The American Cancer Society recommends that women with average risk for breast cancer have the option to start screening from ages 40 to 44, should get an annual screening from ages 45 to 54, and after turning 55 should have annual or biennial screenings while they remain in good health.³⁸ Although major health care systems in the state of Utah—such as the University of Utah Huntsman Cancer Institute and Intermountain Healthcare—are consistent in their recommendation of yearly mammography screening after 40 years of age,³⁹ mixed messaging trickling down from the national level may impact women’s likelihood of scheduling a mammogram.

COVID-19: The recent pandemic affected routine care and preventative screenings in 2020 and 2021 because many health care providers reduced access to non-essential services to ensure capacity for COVID-19 patients. Mammography is considered to be an outpatient and nonemergency

service, and thus it saw one of the largest decreases in service utilization.⁴⁰ Although this caused concerns about diagnosis, treatment delays, and increased possibility of mortality from breast cancer,⁴¹ modeling estimates suggest that the increase to the cumulative breast cancer death rate by 2030 would be small (0.52%) as long as clinics and imaging centers returned to pre-pandemic rates after six months.⁴² Fortunately, many medical centers were able to rebound to comparable mammography rates by mid-2020.⁴³

Despite returning to near pre-pandemic levels, national data suggests the rebound was lower for Hispanic and Asian women.⁴⁴ Medical centers may have struggled to manage the backlog of mammography appointments during the rebound, further delaying preventative services.⁴⁵ In addition, changing patient characteristics during the pandemic (e.g., loss of job, loss of health insurance) may influence some women's ability to receive a mammogram moving forward. Overall, the pandemic may cause subtle but lingering effects on mammography rates.

Other: Other factors to consider include lack of transportation and geographic accessibility, cultural norms, prioritizing work and family obligations, lack of childcare for the appointment, lack of knowledge about mammography, lack of trust in the health care system, concern of pain during the screening, and fear of receiving a diagnosis.⁴⁶

What Utahns Can Do

Utah's breast cancer screening rate is currently 6.3% below the national average. State and local systems can take several steps to increase mammography rates. One step is to establish clear, consistent guidelines and goals. The US Department of Health and Human Services aims to meet the Healthy People 2030 goal of increasing mammography screening rates to 80.5% for US women aged 50 to 74 (building from a baseline measure of 76.4% in 2019).⁴⁷ Similarly, the Utah Department of Health and Human Services has a goal that 81.0% of Utah women over 40 will receive a mammogram by 2030.⁴⁸

Utah healthcare and insurance systems can help increase cancer screening rates by building patient advisories into electronic record systems and tracking how often providers remind individuals to stay current on preventive care, including mammograms. This approach builds on previous efforts to increase access to mammography in Utah. For example, in 2019 Intermountain Healthcare began deploying a mobile mammogram unit to underserved areas to eliminate transportation barriers and add more screening opportunities.⁴⁹ Hospital systems should consider the efficacy of increasing the availability of mobile units and assess whether there is an ongoing need to make up for COVID-19 reductions in screening rates.

Employers can help increase mammography and other cancer screening rates by implementing initiatives (e.g., wellness programs) and policies (e.g., worktime flexibility) that encourage employees to complete screenings according to recommended age and frequency guidelines. Employer support may have a significant impact on cancer screening rates by removing scheduling conflicts and financial constraints and by reducing cultural stigma around these routine procedures.

More broadly, the Utah Comprehensive Cancer Control Program (UCCCP) and the Utah Cancer Action Network (UCAN) developed a "2021–2025 Utah Comprehensive Cancer Prevention and Control Plan."⁵⁰ Their mission is to prevent cancer and support cancer survivors. The plan seeks to "eliminate cancer inequities and reduce the burden of cancer in Utah" and outlines four priorities that will help Utah become cancer-free: 1) increase food security in the state, 2) create healthy neighborhood environments, 3) improve access to high-quality healthcare services for all, and 4) reduce financial toxicity among cancer survivors.⁵¹ This plan encourages Utah policymakers and healthcare leaders to regularly assess and address logistical, structural, and financial barriers to cancer screenings. Solutions may include expanding insurance coverage for women in Utah, particularly for women with lower income.

Health and government organizations should also continue supporting public awareness campaigns in Utah, as a recent study showed a significant increase (180.1%) in the volume of related internet searches surrounding Breast Cancer Awareness Month.⁵² However, organizations should schedule public awareness programs throughout the year instead of focusing solely on campaigns for one month of the year.

Finally, for individuals seeking to learn more and schedule their own mammogram, the Utah Department of Health and Human Services provides an online clinic locator. The Utah Breast and Cervical Cancer Screening Program offers free mammograms to qualifying women over 40 years of age who are uninsured, underinsured, or low income. Other organizations, such as the Huntsman Cancer Institute, provide valuable information about cancer screening and prevention. For those interested, genetic screening tests (e.g., that look for BRCA gene mutations known to increase the risk of breast and ovarian cancer) are available to those with a family history of breast cancer.

Conclusion

Although mammography is widely recognized as an important tool in the fight against breast cancer, Utah remains one of the lowest-ranking states for mammography screening. Education and advocacy from community groups can help age-eligible Utah women receive this valuable screening test at higher rates. Improved access to mammography and other key healthcare resources will strengthen the positive impact of women throughout the state.

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