

Client	HEALTH BENCHMARKS, INC. STANDARD ALGORITHM <i>Implemented for Blue Cross Blue Shield of Texas</i>	
Measure Title	MAMMOGRAPHY SCREENING	
Disease State	Breast Cancer	Indicator Classification¹ Screening
Strength of Recommendation²	A – 50 and older B – 40 and older	
Organizations Providing Recommendation	NCQA (HEDIS 2007 Technical Specification), The United States Preventive Services Task Force, The Canadian Task Force on Preventive Health Care, The American Academy of Family Physicians, The American College of Preventive Medicine, The American Medical Association, The American College of Obstetricians and Gynecologists, The American College of Radiology, The American Cancer Society	
Clinical Intent	To ensure that all eligible women within a designated age group receive a mammography screening test at a clinically appropriate frequency.	
Physician Specialties	Family Practice, Geriatric Medicine, Internal Medicine, Obstetrics-Gynecology	
Clinical Rationale	<p>Disease Burden</p> <ul style="list-style-type: none"> • In women, breast cancer is the second leading cause of cancer death falling behind lung cancer.[1] • Beginning in the fourth decade of life, the risk of breast cancer increases with age.[2] <p>Reason for Indicated Intervention or Treatment</p> <ul style="list-style-type: none"> • Screening for breast cancer with mammography every 12-33 months significantly reduces mortality from breast cancer.[3] <p>Evidence supporting Intervention or Treatment</p> <ul style="list-style-type: none"> • Among women younger than 50, a meta-analyses conducted by the United States Preventive Services Task Force (USPSTF) found a 15 percent decrease in breast cancer mortality after 14 years of observation (RR 0.85, 95% CI 0.73-0.99).[2] • Eight randomized, controlled trials have been conducted on breast cancer screening, all using mammography with or without clinical breast examination.[4-15] Screening mammography was associated with a 9% to 32% reduction in breast cancer mortality.[2] In their meta-analysis, the USPSTF found that the relative risk of breast cancer death among women of all ages randomized to screening was 0.84 (95% CI, 0.77-0.91).[2] • One study, using a Markov model to compare the life expectancy of women undergoing different breast cancer screening strategies, found that the cost-effectiveness ratios were \$21,400 for women 50 to 69 years of age and \$105,000 for women in their 40s per year of life saved. Both are in an accepted range for cost-effectiveness.[16] 	

Clinical Recommendations

- In its second edition, the USPSTF recommended screening for breast cancer in women over the age of 50 every 1-2 years.[17]
- In its third edition, the USPSTF recommends screening for breast cancer in women over age 40 every 1-2 years. They note that the evidence for screening in all women over age 50 is stronger than for those women aged 40-49.[3]
- Several other organizations support screening with mammography starting at age 50: The Canadian Task Force on Preventive Health Care, the American Academy of Family Physicians, and the American College of Preventive Medicine.[18-20]
- Reflecting the controversy around the appropriate age at which to begin screening, other organizations support screening with mammography and clinical breast exam starting at age 40: the American Medical Association, the American College of Obstetricians and Gynecologists, the American College of Radiology, and the American Cancer Society.[21-25]

Source	Health Plan Employer Data and Information Set (HEDIS®) 2007 Technical Specification
Denominator	Continuously enrolled women ages 42-69 years as of the end of the measurement year.
Denominator Exclusion	Members with two unilateral mastectomies or a bilateral mastectomy at any time in the member's history prior to the end of the measurement year.
Numerator	Members who received at least one mammogram during the measurement year or year prior.
Interpretation of Score	High score implies better performance
Physician Attribution	Score all physicians (in the selected specialties) who saw the member during the measurement year.
References	<ol style="list-style-type: none">1. Jemal, A., et al., <i>Cancer statistics, 2005</i>. CA Cancer J Clin, 2005. 55(1): p. 10-30.2. Humphrey, L.L., et al., <i>Breast cancer screening: a summary of the evidence for the U.S. Preventive Services Task Force</i>. Ann Intern Med, 2002. 137(5 Part 1): p. 347-60.3. Berg, A.O. <i>Screening for Breast Cancer: USPSTF Recommendations and Rationale</i>. 2002 [cited 2004 October 15th].4. Miller, A.B., et al., <i>Canadian National Breast Screening Study: 1. Breast cancer detection and death rates among women aged 40 to 49 years</i>. Cmaj, 1992. 147(10): p. 1459-76.5. Miller, A.B., et al., <i>Canadian National Breast Screening Study: 2. Breast cancer detection and death rates among women aged 50 to 59 years</i>. Cmaj, 1992. 147(10): p. 1477-88.6. Bjurstam, N., et al., <i>The Gothenburg breast screening trial: first results on mortality, incidence, and mode of detection for women ages 39-49 years at randomization</i>. Cancer, 1997. 80(11): p. 2091-9.7. Andersson, I. and L. Janson, <i>Reduced breast cancer mortality in women under age 50: updated results from the Malmo Mammographic</i>

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¹ **Indicator Classification** (Adapted from Health Plan Employer Data Information Set (HEDIS®) technical specifications)

Diagnosis	Measures applicable to patients receiving diagnostic workups for a symptom or condition that delineate appropriate laboratory or radiological testing to be performed (e.g. evaluation of thyroid nodule; pregnancy test in patients with vaginal bleeding or abdominal pain)
Effectiveness of Care	
Prevention	Measures applicable to asymptomatic individuals that are designed to prevent the onset of the targeted condition (e.g. immunizations).
Screening	Measures applicable to asymptomatic patients who have risk factors or pre-clinical disease, but in whom the condition has not become clinically apparent (e.g. pap smears; screening for elevated blood pressure).
Disease Management	Measures applicable to individuals diagnosed with a condition that are part of the treatment or management of the condition (e.g. cholesterol reduction in patients with diabetes; radiation therapy following breast conserving surgery; appropriate follow-up after acute event).
Medication Monitoring	Measures applicable to patients taking medications with narrow therapeutic windows and / or potential preventable significant side effects or adverse reactions (e.g. thyroid stimulating hormone (TSH) testing after levothyroxine dose change; hepatic enzyme monitoring for patients using antimycotic pharmacotherapy)
Medication Adherence	Measures applicable to patients taking medications for chronic conditions that are designed to assess patient adherence to medication (e.g. adherence to lipid lowering medication).
Utilization	Measures applicable to patients receiving treatment for a symptom or condition that advocate appropriate utilization of laboratory and pharmaceutical resources (e.g. conservative use of imaging for low back pain; inappropriate use of antibiotics for viral upper respiratory infection).

² Strength of Recommendation

Strength of Recommendation Based on a Body of Evidence

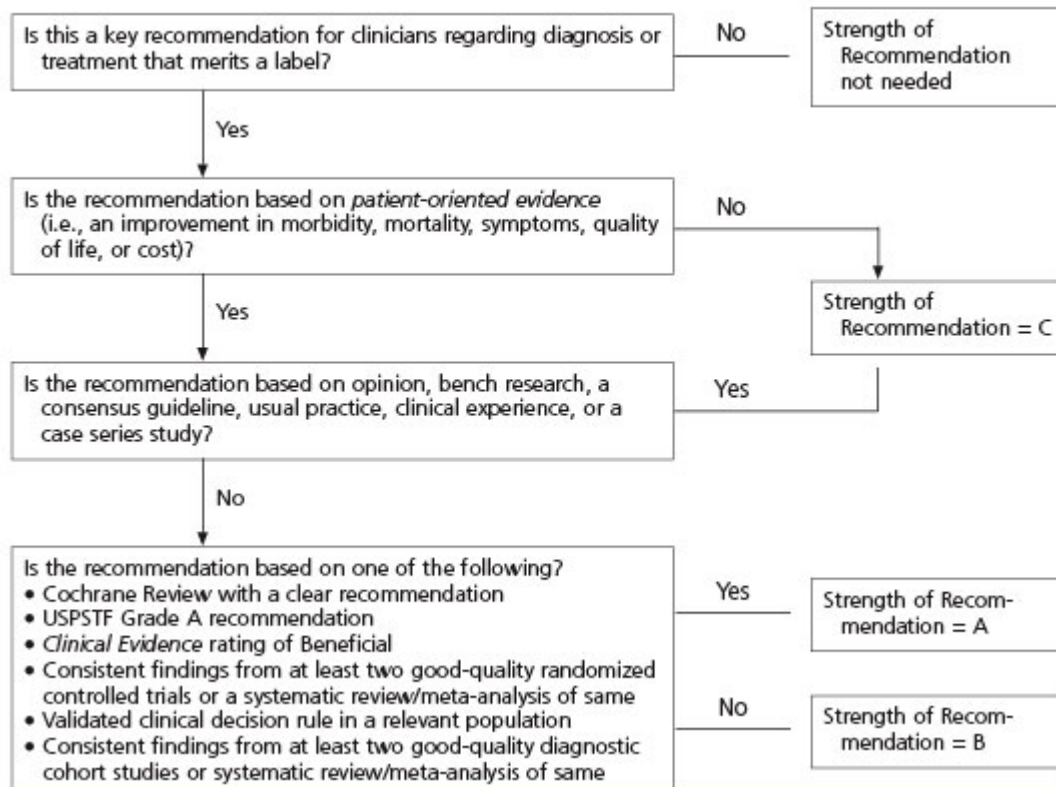


FIGURE 2. Algorithm for determining the strength of a recommendation based on a body of evidence (applies to clinical recommendations regarding diagnosis, treatment, prevention, or screening). While this algorithm provides a general guideline, authors and editors may adjust the strength of recommendation based on the benefits, harms, and costs of the intervention being recommended. (USPSTF = U.S. Preventive Services Task Force)