



Wisconsin Breast Cancer Screening Provider Survey Report of Findings: Southeastern Wisconsin

2017-2018

John Krebsbach

Alexandria Cull Weatherer, MPH

Sarah Kerch, MPH

Noelle LoConte, MD



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Abbreviations

AAFP - American Academy of Family Physicians

ACOG - American Congress of Obstetricians and Gynecologists

ACR - American College of Radiology

ACS - American Cancer Society

NCCN - National Comprehensive Cancer Network

USPSTF - US Preventive Services Task Force

WBCTF - Wisconsin Breast Cancer Task Force



Introduction

In 2009, the United States Preventive Services Task Force (USPSTF) published new guidelines regarding recommended ages for female mammography. They determined that decreased breast cancer mortality was seen predominantly when universally screening women 50-74 years old, while the benefits of universal mammography for all women 40-49 years old were minimal compared to the prevalence of false positives (1). Thus, screening for women 40-49 years old should be an individual decision between patient and provider (1). Despite these statements, organizations such as the American Cancer Society (ACS) and the American Academy of Family Physicians (AAFP) elected to maintain their previous guidelines, causing breast health guideline inconsistencies. Differing guidelines from several national organizations prompted the Wisconsin Breast Cancer Task Force (WBCTF), staffed and facilitated by the then Wisconsin Comprehensive Cancer Control Program (now Wisconsin Cancer Collaborative) to survey Dane County primary care providers in 2012, to learn more about provider's breast cancer screening recommendations and practices.

To further understand present-day use of breast cancer screening recommendations, a similar survey of health care providers was conducted in Southeastern Wisconsin in 2017-2018. Health care providers surveyed included: physicians (family practice, obstetrics/gynecology, and internal medicine), advanced practice nurse practitioners, physician assistants, and nurse-midwives. Findings showed diverse opinions on screening recommendations, displaying variations between guidelines, as well as differences in individual provider preference. Despite efforts to compile objective standards for care by national organizations, it is still the provider that ultimately dictates breast cancer screening practices.

Background

Breast cancer is among the five cancers ranked by the greatest incidence and mortality in Wisconsin. From 2012-2016, 22,292 cases of breast cancer were reported in Wisconsin, with 3,716 deaths (2). The burden of screening for breast and other cancers falls largely on primary care providers, in the form of physicians, nurse practitioners, physician assistants, and others. Common screening tools include clinical breast exams, breast self-exams, and mammography, however, none are without controversy. Moreover, the lack of consensus over the risks and benefits of mammography has become more apparent in recent literature (3). Consequently, inconsistencies in current screening guidelines have arisen on an organization-specific basis.

For example, the United States Preventive Services Task Force (USPSTF) recommends mammography biannually beginning at 50 years old and extending to 74 years old for women of average breast cancer risk (1). However, the National Comprehensive Cancer Network (NCCN) recommends annual mammography, beginning at 40 years old for women of similar risk (4).

Lack of consensus on the best approach to breast cancer screening can lead to variation in clinical practices, based on the provider. Variations as such may lead to suboptimal screening and patient care, as well as incorrect diagnoses. Thus, one way to understand the state of cancer screening is to assess the beliefs and preferences of the clinicians that are tasked with screening patients.

Methods

Using contact information provided by the Wisconsin Department of Safety and Professional Services, a 46-question electronic survey was distributed to four health systems operating in Southeastern Wisconsin. Within these systems, the survey was directed to primary care providers, including physicians (family medicine, OB/GYN, internal medicine), nurse practitioners, physician assistants, and nurse midwives. The survey was consistent with a similar study sent to Dane County providers in 2012 (6). The questions aimed to understand provider beliefs and preferences concerning breast cancer screening tools, guidelines, barriers to screening, and interactions with patients regarding breast health.

Results

265 responses were received from physicians (64.1%), nurse practitioners (25.7%), physician assistants (5.3%), and nurse midwives (1.5%). Of the physicians, the majority practiced family medicine (63.2%), followed by internal medicine (25.3%), and obstetrics/gynecology (9.4%). 65.1% of all respondents reported employment by a larger medical group or health care network, while 13.5% were employed by a hospital or clinic not associated with a university, and 7.1% reported at least partial ownership of a physician practice.

The providers of Southeastern Wisconsin reported varied preference of breast screening guidelines. Guidelines included the United States Preventive Services Task Force (USPSTF), the American Cancer Society (ACS), the American Academy of Family Physicians (AAFP), the American College of Obstetricians and Gynecology (ACOG), the National Comprehensive Cancer Network (NCCN), and the American College of Radiology (ACR).

The USPSTF guidelines were rated as “very influential” (60.5%) most frequently, followed by ACS (46.4%), AAFP (40.4%), and ACOG (39.7%) (Figure 1). No matter the provider preference, respondents most often reported “usually” practicing in concordance with their preferred set of guidelines (83.1%).

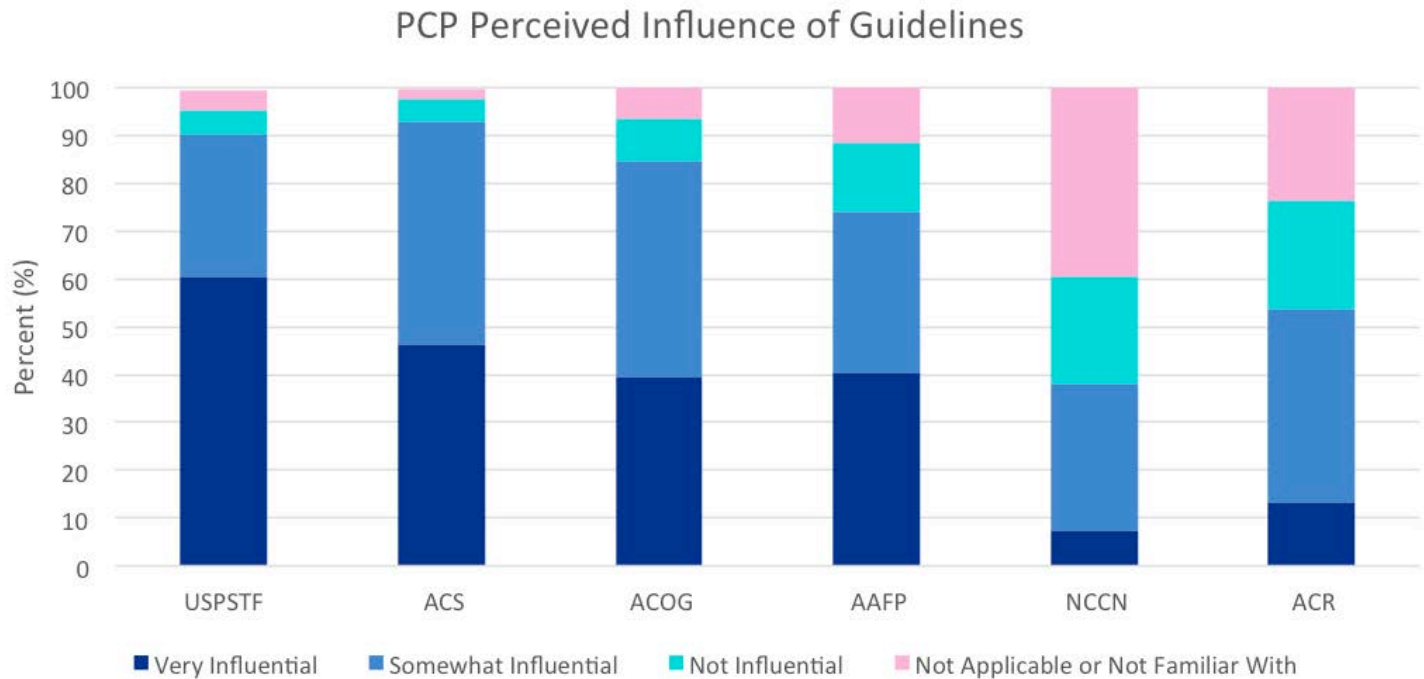


Figure 1 - Survey results of primary care providers’ views of guidelines released by respective recommending organizations.

Providers also indicated varying opinions on the efficacy of a range of screening tools within different age groups of women with an average risk of breast cancer. 98% of providers described mammography in women 50-74 years old as at least somewhat effective in reducing breast cancer mortality (Figure 2). Perceived efficacy was lower for mammography in women 40-49 years old, as well as women 75 and older (88.2% and 61.5%, respectively). Clinical and self-breast exams were rated with less confidence (55.4% and 57.6%, respectively), in ratings of at least somewhat effective (Figure 2). Despite this, for all ages questioned (except healthy women near 80 years old), providers recommended the combination of clinical breast exams and mammography more frequently than just mammography (Figure 3). Moreover, healthy women 80 years old were the only age group where no screening was preferred over all other tools.

PCP Perceived Efficacy in Screening Techniques

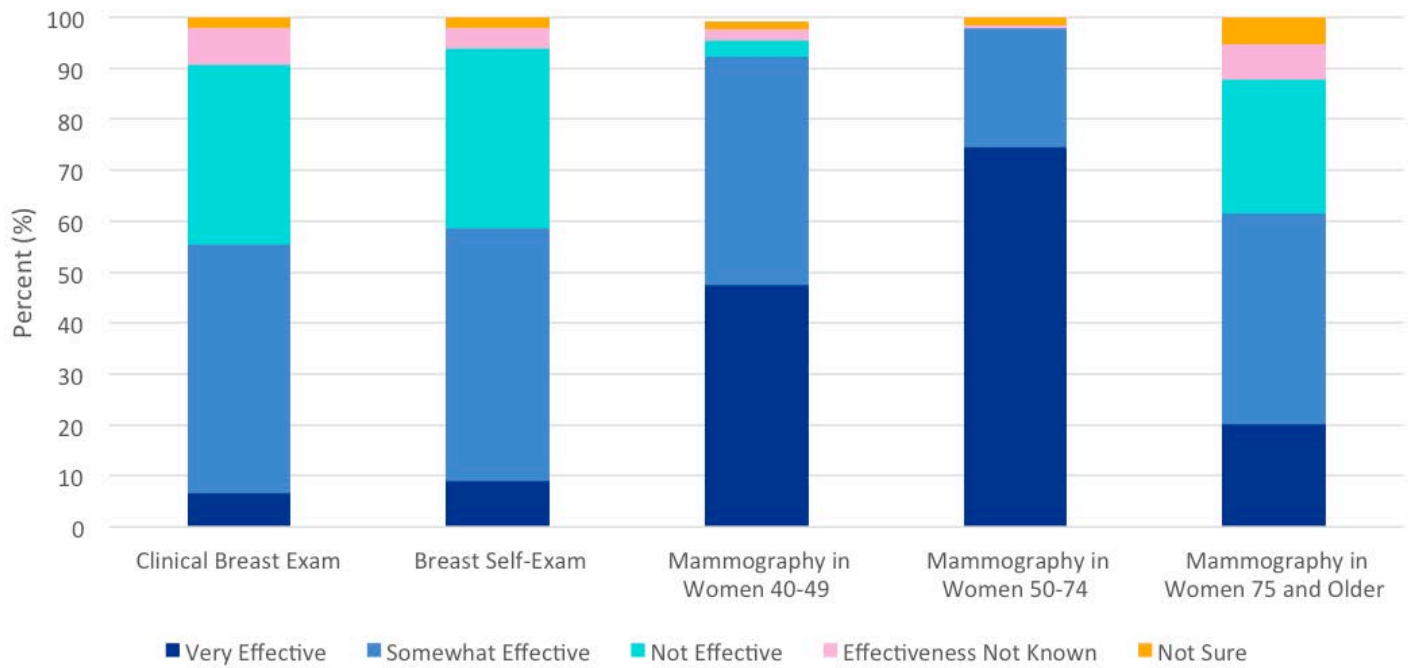


Figure 2 - Survey results of primary care providers' belief in the efficacy of respective screening tools in certain age groups.

Recommended Screening Tools for Healthy Women of Varying Ages

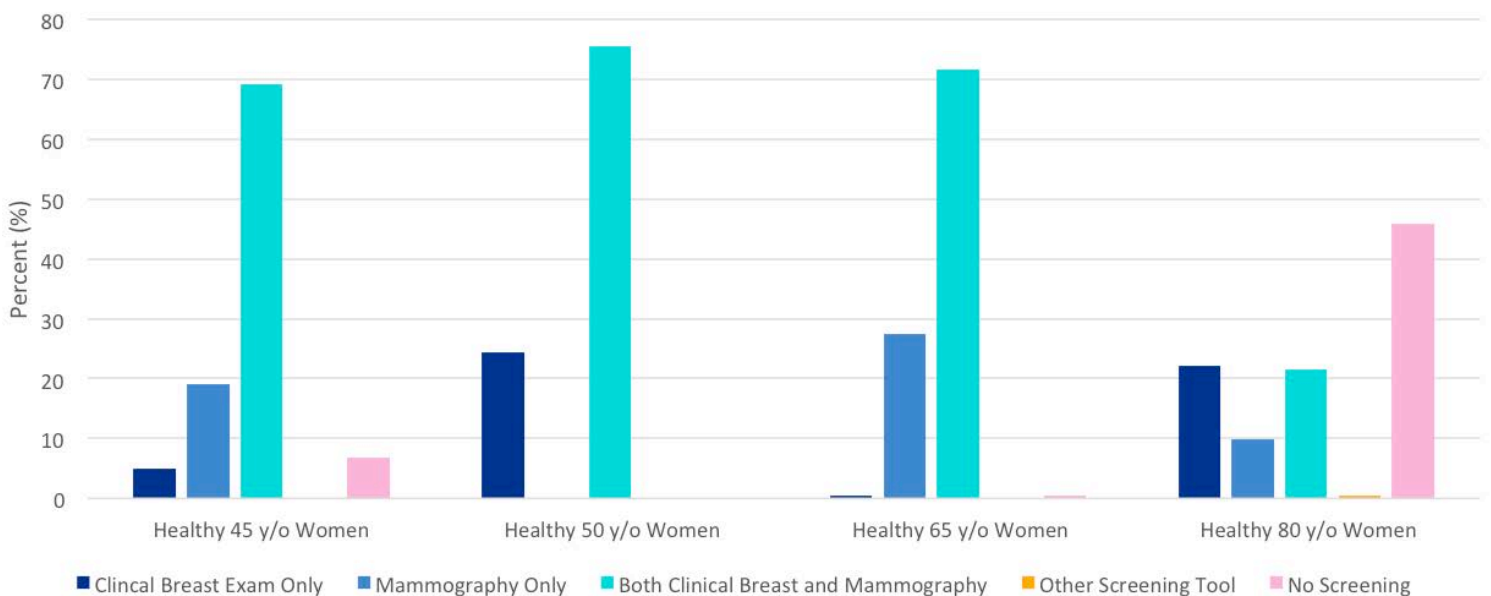


Figure 3 - Survey results of provider recommendations for screening plan for healthy women with average risk for breast cancer at various ages.

Some discrepancies appeared between providers regarding the age that they would recommend discontinuing the use of a screening tool. Over half of respondents said they would recommend discontinuation of mammography (54.4%), yet, in the case of clinical and self breast exams, over half of the respondents would not recommend discontinuation (59.9%, respectively). Of providers who recommended an age to discontinue any of the listed screening practices, the mean age was near 75 years old, given the patient is healthy and of average risk for breast cancer (75.0 years old- mammography, 76.9 years old- clinical breast exam, and 77.3 years old- self breast exam). However, factors other than provider recommendation may impact which patients undergo certain screenings.

Of the specified barriers to screening, providers most frequently stated lack of time to discuss with patients in clinic (40.5%), was sometimes or usually the source of the problem, followed by patients' inability to afford care (29.9%) (Figure 4). Other barriers such as lack of perceived risk of cancer from the patient, difficulty in understanding information surrounding breast cancer screening, and lack of desire to discuss breast cancer were also reported, but less frequently.

Provider-Reported Barriers to Breast Cancer Screening

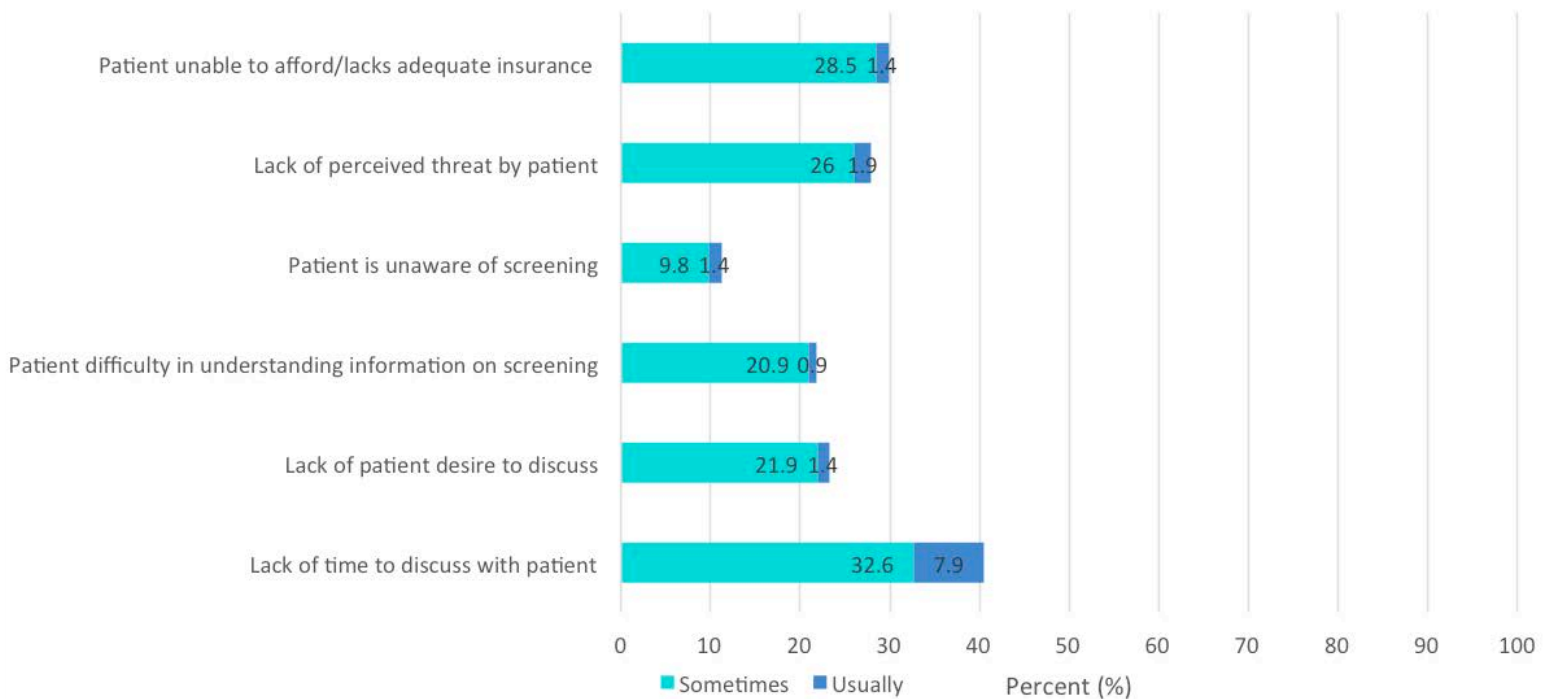


Figure 4 - Survey results of what providers perceive as barriers to breast cancer screening.

Providers expressed a range of concerns that were either frequently or infrequently raised by patients in regard to breast health. Factors that were rarely or never raised by patients included environmental exposures (79.4%), alcohol use (78.8%), weight/obesity (68.3%), and radiation risk from mammography (63.1%) (Figure 5). On the other hand, factors patients sometimes or usually inquired about included family history (90.6%), hormone replacement therapy (63.5%), and oral contraceptives (49.3%) (Figure 5). Other factors discussed included smoking and breast density.

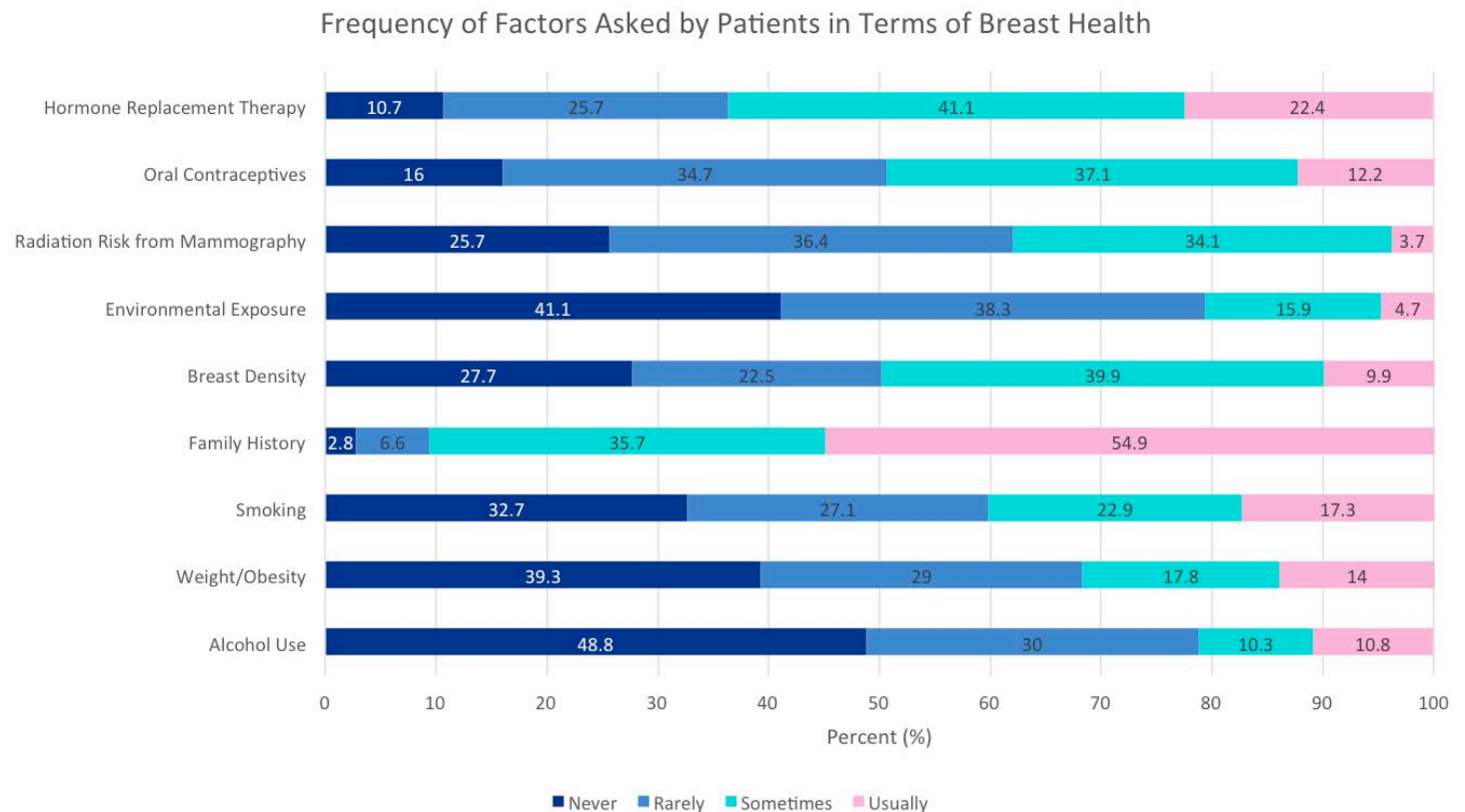


Figure 5 - Survey results of how often patients address certain factors in regards to breast health.

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Discussion

The survey displayed both similarities and differences between Southeastern Wisconsin provider preferences and national trends regarding breast cancer screening. Moreover, providers were influenced by a wide range of national guidelines, and hold different views over the perceived efficacy of certain screening modalities.

For instance, Southeastern Wisconsin providers showed greater belief in the efficacy of mammography in women 50-74 years old, rating it as “very effective” more often than for women 40-49 years old (74.6% and 47.5%, respectively). However, variations in the perceived efficacy of mammography for women 40-49 years old may be influenced by differences in mammography guidelines specific to women below 50 years old. For example, NCCN recommends beginning annual mammography at 40 years old, and ACS guidelines recommend mammography beginning at age 45, while USPSTF does not recommend mammography until 50 years old (1,4,9) (Table 1).

The findings of this survey suggest that the results by hospital system may be reflective of differences between medical specialties, positions, and their relative response rate. With this in mind, the four national guidelines rated most influential were consistent across each hospital system and national survey results (8). Despite this consensus, the survey also showed that the majority of providers usually, rather than always, follow the guidelines they view as most influential. This is evident in the over recommendation of clinical and self breast exams, despite discouragement from the USPSTF (the most influential of guidelines as rated by providers) (1,5). Additionally, USPSTF does not recommend mammography to women of average breast cancer risk until 50 years old (1). In spite of this, 88.2% of providers stated they would suggest a mammogram, or mammogram in addition to a clinical breast exam, as a recommended screening procedure for a healthy 45-year-old woman (Figure 3).

Providers varied in their recommended care plans for healthy women 75 years and older. Commonly recommended screening tools for healthy 80-year-old women include: no screening, clinical breast exam, and mammography, with no screening as the most frequent response. While guidelines such as ACS do not state an explicit age to discontinue breast cancer screening, many providers reported ceasing screening at or near 75 years old (7). Variation in preferred guidelines between providers may explain this diversity in opinion.

Table 1 - Summary of current screening recommendations by organization.

Organization	Recommended ages for mammography	Mammography Interval	Clinical Breast Exam	Self Breast Exam
USPSTF	50 -74y/o (individualized decision for 40-49 y/o; insufficient evidence for 75+ y/o)	Biennially	Insufficient evidence	Not recommended
ACS	45 y/o-10 years less than life expectancy	Annually (45-54 y/o), Biennially (55+ y/o)	Not recommended	Not recommended
ACOG	50-74 y/o (individualized plan for 40-49 y/o and 75+ y/o)	Every 1-2 years	Individualized; offer every 1-3 years for women 25-39 y/o and annually for 40+ y/o	Not recommended
AAFP	50 -74y/o (individualized decision for 40-49 y/o; insufficient evidence for 75+ y/o)	Biennially	Insufficient evidence	Not recommended
NCCN	40 y/o-10 years less than life expectancy	Annually	Every 1-3 years for 25-39 y/o; annually for 40+ y/o	Not recommended
ACR	40 y/o-5-7 years less than life expectancy	Annually	Not addressed	Not recommended

Data from this survey show that variation in provider preference and belief in guideline influence may lead to variation in breast cancer screening. Continued surveying is needed to determine what makes a provider more likely to thoroughly follow breast cancer screening guidelines and why certain screening procedures are favored over others, despite guideline recommendations. Increased opportunities for provider education on guideline adherence may also be beneficial.

Additionally, it is important to acknowledge the racial disparities in breast cancer incidence and mortality in the state of Wisconsin (9). Mammography has remained underutilized as a screening tool among women without a consistent source of health care or insurance, lower education, and lower income levels (10). Thus, assessing barriers to care that are specific to underserved groups plays an important role in decreasing the cancer burden of the entire state. For example, further assessment can be done on whether specific guidelines are followed more frequently based on patient characteristics such as race or insurance coverage. Additionally, it is important to survey providers with larger minority patient populations to see if the barriers to care and concerns raised by patients are similar to the topics in this survey.

Surveying of other areas within Wisconsin is also necessary to understand regional variation within the state, as well as at a national level. The inclusion of rural areas should be prioritized as well, to understand possible disparities in breast cancer screening between rural and urban areas. Additionally, further patient surveys are necessary to understand patients' perceived risk factors, personal attitudes toward screenings, and the barriers to screening/care they may face.

The results of this survey display the continued need for increases in appropriate, guideline-concordant breast cancer screening in the state of Wisconsin. Proper screening also increases the likelihood of early detection, decreased mortality, and overall better breast cancer survivor outcomes.

References

1. Siu AL. Screening for Breast Cancer: U.S. Preventive Services Task Force Recommendation Statement. *Annals of Internal Medicine*. 2016;164(4):279-96. doi: 10.7326/M15-2886.
2. Wisconsin Dept. of Health Services, Division of Public Health, Office of Health Informatics, Wisconsin Cancer Reporting System. Wisconsin Interactive Statistics on Health (WISH) data query system, <https://www.dhs.wisconsin.gov/wish/index.htm>. Cancer Module, accessed 5/27/2020.
3. Pace LE, Keating NL. A Systematic Assessment of Benefits and Risks to Guide Breast Cancer Screening Decisions. *JAMA*. 2014;311(13):1327-35. doi:10.1001/jama.2014.1398
4. Helvie MA, Bevers TB. Screening Mammography for Average-Risk Women: The Controversy and NCCN's Position. *Journal of the National Comprehensive Cancer Network*. 2018;16(11):1398-404. doi: 10.6004/jnccn.2018.7081.
5. Nachtigal E, LoConte N, Kerch S, Zhang X, Parkes A. Variation in breast cancer screening recommendations by primary care providers surveyed in Wisconsin. *Journal of General Internal Medicine*. 2020 (In press).
6. Wisconsin Comprehensive Cancer Control Program, Wisconsin Breast Cancer Task Force. Wisconsin Breast Cancer Task Force Provider Survey Report of Findings: Dane County. April 2012. https://wicancer.org/wp-content/uploads/2015/07/WBCTF_report_rev_FINAL2.pdf
7. Oeffinger KC, Fontham ETH, Etzioni R, et al. Breast Cancer Screening for Women at Average Risk: 2015 Guideline Update From the American Cancer Society. *JAMA*. 2015;314(15):1599-1614. doi:10.1001/jama.2015.12783
8. National Cancer Institute, Centers for Disease Control and Prevention, Agency for Healthcare Research and Quality. National Survey of Primary Care Physicians' Cancer Screening Recommendations and Practices: Breast and Cervical Cancer Screening Questionnaire. 2009; http://healthservices.cancer.gov/surveys/screening_rp/screening_rp_breast_cervical_inst.pdf
9. Lepeak L, Tevaarwerk A, Jones NR, Williamson A, Cetnar J, LoConte N. Persistence in breast cancer disparities between African Americans and whites in Wisconsin. *WMJ*; 2011;110(1), 21-5.
10. DeSantis C, Siegel R, Bandi P, Jemal A. Breast Cancer Statistics, 2011. *CA: Cancer Journal for Clinicians*. 2011;61(6):409-18.

11. Meissner HI, Klabunde CN, Han PK, Benard VB, and Breen N. Breast cancer screening beliefs, recommendations and practices. *Cancer*. 2011;117: 3101-3111. doi:10.1002/cncr.25873
12. American College of Obstetricians-Gynecologists. Practice bulletin no. 122: Breast cancer screening. *Obstetrics and Gynecology*. 2011;118(2 Pt 1):372-382. doi: 10.1097/AOG.0b013e31822c98e5
13. Lee CH, Dershaw DD, Kopans D, Evans P, Monsees B, Monticciolo D, Brenner RJ, Bassett L, Berg W, Feig S, Hendrick E, Mendelson E, D'Orsi C, Sickles E, Burhenne LW. Breast cancer screening with imaging: recommendations from the Society of Breast Imaging and the ACR on the use of mammography, breast MRI, breast ultrasound, and other technologies for the detection of clinically occult breast cancer. *Journal of the American College of Radiology*. 2010;7(1):18-27. doi: <https://doi.org/10.1016/j.jacr.2009.09.022>
14. National Comprehensive Cancer Network. NCCN Clinical Practice Guidelines in Oncology: Breast cancer screening and diagnosis, Version 1.2011, 2011.

