

SBINEW

The Member Newsletter of the Society of Breast Imaging

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OUR SBI MISSION:

For members to be expert and authoritative breast imagers working in supportive practice environments who advance the highest quality of breast care via early detection, diagnosis, and treatment.

OUR SBI VALUES:

Patient-centered and evidence-based care

Excellence in education

Scientific integrity

Collaboration and collegiality
Respect for diversity and
inclusiveness

President's Column

It's springtime, and the SBI is buzzing with our "SBI 40 at 40" initiative! The SBI is celebrating our 40th anniversary, focusing on recommending that women start annual mammography screening at age 40. Our SBI symposium at the Broadmoor in Colorado Springs highlights our screening advancements. It features educational sessions, scientific updates, supplemental screening, case-based challenges, imaging protocols, and other relevant topics. It's also a chance to engage with our community—our attendees, meeting faculty, industry partners, and SBI staff. In my year as SBI president, I have witnessed the dedication of our membership, SBI fellows, and committees to support breast imaging. Now more than ever, it is important to remember SBI's mission: "for members to be expert and authoritative breast imagers working in supportive practice environments who advance the highest quality of breast care via early detection, diagnosis, and treatment."

Impactful societies evolve to be relevant to our members and patients. We are more inclusive with committee assignments and the makeup of our board. Our Research and Education Fund Committee will be accepting applications shortly.

It has been my privilege to serve as the SBI president. I am grateful for the dedication of our committees, SBI staff, board, and membership.

Our society will continue to flourish.

Linda Moy

Linda Moy, MD, FACR, FISMRM, FSBI President, Society of Breast Imaging

Editor's Note

By Nidhi Sharma, MD

The direction you choose to face determines whether you're standing at the end or the beginning of a road.

- Richelle E. Goodrich1



Nidhi Sharma, MD

Beginnings come with a range of feelings, from excitement to anxiety and even fear. These are all normal and quite natural for human beings to experience. However, we owe it to each other to embrace the opportunity to start again and be even better than any year before.

This year we celebrate SBI's landmark 40th anniversary. This is a truly special time for us to reflect on the efforts and achievements of our society in the past several decades and get inspired to continue contributing to future endeavors. In this issue, themed "40 Then, 40 Now," we have a lineup of excellent guest articles. Dr. Michael Linver, past SBI gold medalist, and Yasmeen Fields, our chief executive officer, pen an article on the history of the SBI symposium and its evolution to the current level. Dr. Daniel Kopans, one of our field gurus, shares candid thoughts on the changing United States Preventive Services Task Force guidelines and support for early screening mammography. Dr. Debra Monticciolo, our past president, gold medalist, and champion leader and advocate for screening mammography, sheds light on worrying trends of breast cancer mortality and distant disease. Dr. Paula Gordon, our 2025 gold medalist, and Dr. Jean Seely, past Canadian Society of Breast Imaging president, share their truly inspiring advocacy efforts in Canada that have led to landmark legislative changes. Also, Dr. Dana Ataya, a member of the 2025 Symposium Planning

Committee and a true artist, shares her story of the process of writing the anthem song "40 Then, 40 Now," raising awareness of the importance of early screening.

The additional articles also follow the theme; the Technologists' Column highlights the importance of transforming patient care with meaningful patient education efforts. I hope you enjoy reading this edition as much as our editorial team enjoyed putting it together. As the newsletter transforms into a more fluid, timely, and ongoing monthly release of informative articles for the membership, we are excited for all the new possibilities to evolve and explore as it expands. SBI encourages microvolunteering, so you don't necessarily have to commit to a long-term service goal and can still contribute to our SBI News initiatives! If you have any new ideas to share with the community, please reach out to us.

To close, I want to thank all of you that have helped make this newsletter a great success. Your time, talent, and energy as SBI community have allowed us to provide incredible opportunities and magical moments for our readership. Thank you for helping us make that happen.

References

1. Goodrich RE. Smile Anyway: Quotes, Verse, and Grumblings for Every Day of the Year. Published by the author; 2015.

Report From ECR 2025: Planet Radiology

By Giovanni Irmici, MD; Emine Meltem, MD; Anete Purvlice, MD; Miguel Braga, MD; Thiemo van Nijnatten, MD, PhD; Michael Fuchsjäger, MD

The European Congress of Radiology (ECR) 2025 welcomed 20,522 participants from 131 countries from February 26 to March 2, reflecting a 9% increase in attendance compared with the previous year. The central theme of ECR 2025, "Planet Radiology," emphasized sustainability in medical imaging and radiology's role in global health. With climate change becoming an increasingly urgent concern, radiology must adapt by minimizing its environmental impact while maintaining high-quality patient care.

The European Society of Radiology (ESR) highlighted these challenges, addressing eco-friendly imaging practices, health care equity, and technological innovations that support a more sustainable future.

The congress opened with the impressive Wonder ceremony, a visually captivating experience that included the performances of singers and acrobats. In a unique demonstration of sustainability, ESR President Prof. Andrea Rockall repurposed her own wedding dress, highlighting the importance of reusing materials and reducing waste. The opening ceremony also honored this year's gold medalists, including Prof. Michael Fuchsjäger, president of the European Society of Breast Imaging (EUSOBI), along with Prof. David C. Howlett, Prof. Rosemarie Forstner, and Prof. Harriet C. Thoeny. Their contributions to the field were celebrated as a testament to the ESR's commitment to innovation and excellence.

Additionally, ECR 2025 awarded the most cited article in 2023 in European Radiology, "Breast Cancer Screening in Women With Extremely Dense Breasts: Recommendations of the European Society of Breast Imaging (EUSOBI)," by Dr. Ritse Mann. The article highlights the need for supplementary screening strategies for women with extremely dense breasts and advocates for contrast-enhanced breast magnetic resonance imaging as a cost-effective method that significantly reduces breast cancer mortality in this population.

Breast imaging remained one of the main topics at ECR 2025 and featured refresher courses, research presentations, and advanced sessions. Key sessions covered breast cancer screening, symptomatic breast imaging, cancer staging, intervention, BI-RADS updates, lesions of uncertain malignant potential, artificial intelligence applications, misdiagnosis management, imaging in transgender patients, and diversity in communication. The BI-RADS lexicon update lecture introduced new terminology for mass and nonmass lesions, microcalcifications, architectural distortions, asymmetries, and nonmass enhancement, soon to be included in the sixth edition. Discussions on managing breast lesions of uncertain malignant potential brought together perspectives from surgeons and radiologists, emphasizing







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differences between European and American approaches to highrisk lesions. Regarding breast radiologist-patient communication, the conference included interactive role-playing workshops focusing on delivering bad news and on the complexities of interacting with transgender patients to promote a more inclusive approach in radiology.

The congress also shed light on the evolving role of breast imaging—guided interventions, emphasizing their safety and advantages over conventional surgery in certain patients. Experts presented data demonstrating that, in properly chosen patients, percutaneous procedures such as vacuum—assisted breast excision and cryoablation offer outcomes comparable to surgery while being less invasive, enabling faster recovery and better cosmetic results. A particularly relevant discussion centered on the environmental impact of breast cancer care, with speakers advocating for a shift toward office—based imaging—guided interventions. By reducing reliance on surgical resources and hospital stays, these procedures can contribute to a lower carbon footprint, aligning with the congress's theme of Planet Radiology.

Toward the end of the congress, the EUSOBI Young Club celebrated its 10th anniversary with a lunch symposium. The session began with three fascinating case presentations, followed by an interactive quiz about EUSOBI Young Club activities over the decade. The winner was awarded a free registration for the EUSOBI Annual Scientific Meeting 2025 and the EUSOBI Young Club Workshop, taking place from September 25 to 27 in Aberdeen. EUSOBI Young Club committee members also reflected on the past decade, summarizing key events, social gatherings, achievements, and successes. They extended an invitation for young breast radiologists to join this growing scientific community.

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Promotion Makes Me Sick

By Claudia C. Cotes, MD

I've lost count of how many times I've heard accomplished professionals, especially women physicians, express doubts about their abilities. I've certainly had my share of those moments, thinking, "I'm not ready. I haven't done enough. I don't deserve it." Unfortunately, these thoughts aren't just self-imposed; they are reinforced by a system that often feels designed to keep us chasing a finish line that keeps moving. In academic medicine, the promotion process is supposed to be a milestone, a recognition of hard work and expertise. Yet for many, it feels more like an exhausting, neverending checklist. Publish more. Speak more. Lead more. And still, that feeling of enough remains unreachable.

But beyond exhaustion and frustration, the promotion process can take a real toll on mental health. Studies show that the pressures surrounding academic advancement contribute to increased rates of depression and burnout among physicians, especially women physicians. The uncertainty, the prolonged waiting, and the feeling of never being enough can make even the most accomplished doctors question their place in medicine. Factors such as faculty stress, the demanding promotion package, and limited institutional support are major contributors to physician depression. Promotion is meant to be an acknowledgment of dedication and expertise, a celebration of what we've accomplished. But too often, the process does the opposite: it magnifies self-doubt, reinforcing the belief that we are always falling short of deserving recognition.

One of the biggest flaws in the academic medical system is the unrealistic expectation that physicians must excel in all three traditional domains: clinical practice, research, and teaching. But the rigid promotion criteria fail to acknowledge that not all physicians will shine equally in all areas.³ Excelling in one or two areas should be enough, but instead the process demands perfection across all categories, fueling a sense of inadequacy rather than celebrating individual strengths.

For women, the path to promotion is even steeper. Research consistently shows that men are promoted more frequently and more quickly than women in academic medicine. Despite comprising 40% of academic faculty, women make up only 25% of tenured faculty, and only one in four makes full professor, often facing greater scrutiny during the promotion process with their teaching and service contributions undervalued compared to research and clinical work. The leadership gap is also noticeable between men and women, with women

comprising only 15% of department chairs and 9% of division chiefs.¹

When the system fails to recognize our value, it's easy to internalize that failure. It can make us feel unworthy and sometimes even depressed. The impact isn't just



Claudia C. Cotes, MD

emotional; it's tangible. Promotion isn't just about a title; it often comes with a financial gap, where those who advance are rewarded with higher salaries and greater benefits, while those left behind continue to do the work without the same compensation.

What if we stop measuring our success by titles and promotions and instead focus on what truly fulfills us? External validation will never be enough if we don't first recognize our own worth. Promotion is important; it opens doors and creates opportunities, but it cannot, and should not, be the thing that defines us.

Instead of obsessively checking off the to-do list for promotion, what if we start checking off the to-do list of our lives? Travel more. Dance more. Create more. Mark the checklist of your workouts at the gym, prioritizing your health so you can feel your best, both physically and mentally. Spend time with the people who fill your cup and stay away from those who drain it. Chase the experiences that bring you joy, both at work and at home.

When we shift our focus from meeting institutional benchmarks to living fully, the pressure eases. The work we do becomes richer, more fulfilling, and, paradoxically, even more impactful. And strangely, that's when it happens. When we least seek it, when we stop agonizing over the timing, when we invest in the work itself rather than the title: it comes. The validation arrives at the moment we no longer crave it. As a colleague once reminded me: "Would you want your title on your gravestone? Here lies Professor Claudia Cotes?" That would have been a boring life.

References



Transforming Care With Impactful Patient Education

By Sarah Jacobs, BS, RT(R)(M)(CT); Robyn Hadley, RT(R)(M)

Forward momentum created by the SBI's "40 and Forward" initiative provides an opportunity for key technologist involvement. The imaging technologist is often the individual who receives various patient questions and acts as the first line of communication during any mammographic examination. The extensive questions from patients vary and include topics such as new technology, screening guidelines, frequency and duration of screening examinations, breast density, and breast cancer risk. Accurate patient education is one of the most prevalent obstacles to breast cancer screening. Zafar et al discovered a need to provide women with essential information so they could more effectively navigate confusing guidelines and advocate for their own breast health. The study also showed that the perceived harm of anxiety is decreased with patient education.¹ Now is the time to work alongside your team of breast radiologists to develop best-practice guidelines for delivering accurate, relevant information and education while addressing these pressing patient questions.

Impactful Results

Leadership teams and breast imaging technologists have an opportunity to elevate the patient's experience by creating and delivering educational content designed to promote compliance, satisfaction, awareness, and knowledge on a consistent basis. Dodelzon et al reported that patients' fears and concerns in the long term can be reduced when cognitive reassurance is offered through information and education along with reassurance techniques focused on the biology of the condition.² Multidisciplinary collaboration through education and engaging patient-centered communication can lead to an elevated patient care experience.2

The Kettering Health Breast Center (KHBC) team has developed a robust program for patient education. KHBC team members (listed at the end of this article) told us they "strongly believe that knowledge about why a test was recommended and what to expect during the exam enhances compliance" and that their "comprehensive educational materials aim to reduce anxiety, empowering patients with knowledge about their breast imaging" (email, March 28, 2025). KHBC team members also shared that most of their patients express gratitude for the educational material provided.





Sarah Jacobs, BS, RT(R)(M)(CT)

Robyn Hadley, RT(R)(M)

Breast imaging is a team sport! Collaboration between technologists and radiologists is important when creating key educational resources and scripts that address patients' questions. Collaboration also promotes standardized practices throughout the organization. There are 40 different ways to answer four patient questions. Ask your technologists the most common questions they receive from patients and create scripts and resources to help them provide patients with precise, accurate, and informative answers. KHBC's patient education program is led by Deanne Rose, Breast Center director, and Bruce Gearhart, medical director, in collaboration with the management and marketing teams. Updates to patient material at KHBC are based on patient feedback and staff suggestions. Taking into consideration the efforts of the SBI and the work by Dodelzon et al² and KHBC, the following is a game plan to develop a 40 and Forward team playbook to help optimize and drive the SBI's initiative.

Educational Lineup: Top Picks

Whether patients ask questions during their examinations or reach out after their appointments with various questions or concerns, establishing a standard process to address inquiries and effectively educate patients is helpful for staff and improves patient care and communication. KHBC recognized this opportunity to elevate patient care. KHBC provides every patient undergoing screening with a "Next Steps" rack card that includes information about cancer risk assessment, results delivery, breast tissue density, supplemental screening options, and the breast patient navigation team (Figure 1). Patients undergoing diagnostic imaging at KHBC are provided "tailored material based on their specific needs, such as information about cysts, gynecomastia, or calcifications. When biopsy

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Technologists' Column: Transforming Care With Impactful Patient Education (continued from page 7)

is recommended, a breast patient navigator will review the materials with the patient" (email, March 28, 2025). Several essential resources can be used at the time of the examination, and technologists can take strategic steps to alleviate additional concerns and put the patient's mind at ease. Beginning the process can be daunting. The following are potential considerations for educational handouts.

• Breast density

- Using lay terms, explain breast density and the different categories that a patient's individual density may fall into.
 Ensure that the verbiage in the handout matches the verbiage used in the patient's report.
- Using visual aids to support the density description is beneficial.
- Provide technologists with a short, concise script to use when interacting with patients to ensure that they relay clear, accurate information to the patients.

• Risk assessment

- Offer specific patient handouts that explain general risk factors and risk assessment questions.
- General risk factors may include factors that a patient cannot control such as age, genetic mutations, reproductive history, dense tissue, personal and family breast cancer history, and previous radiation therapy treatments. It's also helpful to include risk factors that the patient can control, including physical activity, hormone use, reproductive history, and alcohol consumption.
- Risk assessment questions can be a source of anxiety for patients. Unfortunately, many patients do not understand why these questions are asked and how they relate to their individual risk. A simple explanation of their importance, along with an educational handout, can be extremely helpful in reducing frustrations and patient anxiety.
- Inquiring about Ashkenazi Jewish heritage is essential due to the high prevalence of BRCA1 and BRCA2 gene mutations in Jewish women of Eastern European descent.
- Encourage patients to speak with their health care professional, and when appropriate, offer additional information about the facility's genetics department or high-risk clinic.
- Breast pain: Remind patients that breast pain is common and can affect up to 80% of women during their lifetime. A simple explanation of what breast pain is, along with possible causes and a general overview of when imaging is needed, can help reduce anxiety regarding breast pain.

- Gynecomastia: Describe what gynecomastia is and the various conditions and medications that can cause it. Including a brief explanation of how gynecomastia is diagnosed and potential treatment options can be beneficial.
- Digital breast tomosynthesis (3D mammography): Define and describe the benefits of a digital breast tomosynthesis mammogram in lay terms. Using analogies such as trying to see a single snowflake in a snowstorm can help promote patient understanding.
- Diagnostic callback: Outline the general process before, during, and after a diagnostic callback according to facility protocol. Assure patients that abnormal findings during a screening examination may require additional testing but do not mean they have cancer and can be dense breast tissue, a cyst, or unclear images. Inform patients that baseline mammograms may also need additional review.
- Supplemental screening tools and technology: A resource
 outlining supplemental screening tools and technology offered by
 the facility is beneficial for patients inquiring about their options.
 These tools may include automated breast ultrasonography,
 breast magnetic resonance imaging, breast ultrasonography,
 contrast-enhanced mammography, and others.

Breast implants

- Highlight the benefits of early detection through screening mammography, emphasizing that the risk of implant rupture during the examination is low and the risk of breast cancer is higher.
- Facilities may also choose to use a breast augmentation waiver
- Financial assistance programs: Providing patients with information about programs provided by the facility to assist with financial burdens may help increase patient use of services for their breast care.

Momentum-Shifting Elements

It's critical to ensure that the educational handouts and the information that your team provides to patients are not only consistent among technologists but also beneficial and informative to patients. Creating educational material in the patient's preferred language is a key aspect to ensure that patients understand the information. Using basic terminology that's easily understood and written at a sixth-grade level is ideal for optimal patient understanding. Patients have various learning styles, so a one-size-fits-all approach is often ineffective and counterproductive. If your facility offers videos, posters, visual aids, printed handouts, or brochures, these resources should



align with the verbal education provided to patients from the technologist, interpreting physician, and other imaging staff.

When creating educational patient materials, it is helpful to involve your team of interpreting physicians, breast imaging technologists, and other team members that have direct contact with patients. Specifically, breast imaging technologists play a vital role and bring value to the team by knowing current industry advancements, standards, and regulations and by actively engaging in regular professional development. Their expertise ensures accurate and informative educational content delivery to patients, enhancing patient care and team performance. Our SBI News article titled "Encouraging Volunteerism Generates Fulfillment and Opportunities for Technologists" proposed engaging avenues for technologists to stay active and remain up to date on industry advancements and professional knowledge.³ Trusted and credible organizations such as the ACR and SBI and peer-reviewed literature should be used when developing and updating educational materials. The SBI has an excellent resources page on their website to help guide these discussions among radiologists, technologists, and patients. The resources page (Figure 2) offers an abundance of material, including resources and recommendations, Journal of Breast Imaging white papers, graphics, and fact sheets to help guide breast imaging teams in creating educational materials. Educational content should be reviewed annually or more frequently as necessary to maintain accuracy, relevance, and up-to-date information.

Figure 1. Staff members at Kettering Health Breast Center sharing patient education information. Reprinted with permission.

Recognizing that breast imaging is a team sport, working together to create standardized resources that empower technologists to consistently provide clear and precise answers is essential. By leveraging their front-line role in patient communication, we can make significant strides toward improving patient care and supporting the goals of the SBI's 40 and Forward initiative. Now is the time for breast imaging teams to take action and create a unique playbook that fosters education and empowerment for both patients and technologists.

Special thanks to the following individuals at KHBC for sharing their experience and providing valuable insight: Deanne Rose, KHBC director; Bruce Gearhart, MD, breast imaging medical director; Tammy Archambault and Camie Herrst, Breast Center managers; Roxanne Baer, quality and accreditation supervisor; and staff technologists.

References

- 1. Zafar N, Wolf AB, Kepniss JL, Teal AC, Brem RF. <u>Effectiveness of community education for breast cancer screening</u>. *J Breast Imaging*. 2024;6(2):166-174. doi:10.1093/jbi/wbae002
- 2. Dodelzon K, Shah S, Prasad L, Atallah J, Katzen JT. <u>Patient-centered care: value added by breast radiologists in the management of breast pain.</u> *J Breast Imaging*. 2023;5(5):591-596. doi:10.1093/jbi/wbad023
- 3. Hadley R, Jacobs S. Encouraging volunteerism generates fulfillment and opportunity for technologists. *SBI News*. April 2024:12-13,22. Accessed April 4, 2025. https://www.sbi-online.org/news/sbi-news-spring-2024



Figure 2. SBI 40 and Forward web page: https://www.sbi-online.org/breast-cancer-awareness-resources

THE FUTURE OF RADIOLOGY READOUTS: VIRTUAL VERSUS IN-PERSON LEARNING

By Lakshmi Priya, MD

The COVID-19 pandemic transformed the radiology workflow, with many radiologists transitioning to remote work to adhere to social distancing. This had a major impact on radiology education and created a shift toward virtual readouts. The flexibility of remote work led many radiologists to continue to read from home, resulting in the ongoing use of virtual readouts in residency programs. This new educational format has led many residents to question how virtual readouts will impact their training.

In-Person Readouts

Radiology readouts are a vital part of radiology residency training and have traditionally been done in person. In-person readouts allow trainees to learn their attending physicians' search patterns and observe their approach in formulating a report in real time. This format allows for more immediate and personalized feedback. Junior residents may prefer to have their attending physicians on site as it makes them accessible for questions regarding emergency cases or protocols. Residents may feel less anxious when their attending physicians are present to assist with tumor boards, questions from referring clinicians, and fluoroscopy cases. In-house attending physicians also create opportunities for building strong personal connections and mentorship. Additionally, interesting cases can be shared in real time, which can foster teaching opportunities and discussions in evidence-based medicine and lead to research ideas.

However, in-person readouts come with their own set of challenges. During the COVID-19 pandemic, social distancing limited traditional in-person readouts. Some programs had physical space constraints or limited workstations in their reading rooms, making in-person readouts challenging.² As a solution, some programs piloted home workstations for their residents and found this offered more flexibility.³ Home workstations can be beneficial during bad weather conditions and save commute time.³

Virtual Readouts

Virtual readouts offer unique benefits for training radiology residents and fellows. Screen-share features allow attending physicians to scroll through cases in real time and share additional radiology resources such as journal articles. Direct messaging through picture archiving and communication

systems allows attending physicians to give residents case-specific feedback that residents can review at their convenience, such as after a night shift. In institutions with reading rooms in different buildings, virtual



Lakshmi Priya, MD

platforms facilitate learning by eliminating the need to travel.⁴ Virtual readouts often occur less frequently than in-person readouts, which may be beneficial for senior residents as they can develop more autonomy and read higher volumes to prepare themselves for fellowship and jobs. This allows residents to gain confidence and have increased ownership of reports.⁵

Despite their benefits, virtual readouts pose many challenges. Attending physicians reading from home may sometimes sign off on a resident's report without conducting a formal readout. This negatively impacts resident education because trainees miss out on valuable feedback and teaching points related to the case.² Some attending physicians may lack familiarity with virtual platforms and choose to discuss cases over the phone instead to save time. This particularly affects junior residents, who may struggle to identify key findings without an attending physician pointing them out directly. Technology also presents challenges such as potential lag when scrolling through cases virtually. Virtual platforms make it difficult for attending physicians to see trainees' body language and visual cues, making it harder to evaluate trainee understanding. 1 This also makes it challenging for residents and attending physicians to form interpersonal relationships. Residency social events could bridge this virtual gap and help residents put faces to their virtual attending physicians. Additionally, virtual attending physicians may be harder to reach quickly during urgent situations such as during emergency room cases or when a referring clinician needs to discuss a case in real time.

Impact on Didactic Lectures

Didactic lectures are a crucial element of radiology resident education and underwent significant changes during the pandemic. Online platforms such as Zoom and Microsoft Teams have played a key role in facilitating virtual learning. They enable

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THE PATIENT'S PERSPECTIVE

Kristin Bittrolff

By Hannah Perry, MD

HP: Please tell me about yourself and your background.

KB: My name is Kristin. I am a liaison in breast imaging at the University of Vermont Medical Center. I am part of the medical assistant group and I help with a wide range of clinical and clerical duties. Before working here, I was in the restaurant business for over 30 years, waiting tables and tending bars, working in management and in ownership as well. My husband is a chef, and we have worked in many food service operations together over the years. I loved my restaurant career! I grew up on Cape Cod with my mother and grandmother, and I attended college in Massachusetts studying psychology and English. My husband, Damian, and I eloped in Burlington in 1996 and moved here in 1998.

How were you diagnosed with breast cancer?

One cold winter day, I rolled onto my stomach in bed and felt like I had laid on an egg. I felt a lump in my right breast that I had never felt before. I had not started mammogram screenings at age 40, and I was a slacker in terms of checking my own breasts with self-exams. It didn't hurt, so I had quickly convinced myself that it was a cyst.

After several months of waiting for the lump to go away, I finally made an appointment to see my doctor. She did an exam and ordered diagnostic imaging. I came to the University of Vermont Medical Center Department of Breast Imaging for my first mammogram and breast ultrasound and was told that the lump was concerning and that I should have a biopsy. My biopsy was performed just a few days later, and two days after the biopsy, I received the call that the mass was a cancer.

How did you feel when you learned of the news?

As the child of a parent who died of cancer (lung) at age 51, I was completely devastated about my diagnosis at age 43. I was terrified that I was not going to survive the cancer. I had spent 18 years worrying about getting cancer after losing my mother to it, so it was really upsetting. I felt like the world was spinning out of control and I couldn't get it to stop for just one moment while I reflected. At the same time, I felt like time was standing still and things weren't happening quickly enough.

What was your treatment process? Did you face any treatment obstacles? How did you overcome them?

My treatment consisted of neoadjuvant chemotherapy for five months (12 weekly infusions and then four biweekly infusions),



Hannah Perry, MD

then a partial mastectomy, then 33 radiation treatments. I had no delays from chemo, which my oncologist was very happy about. My tumor shrank from 2.9 cm to 1.3 cm in just the first six weeks of treatment. My surgeon was very happy about that.

The last four infusions took a toll on my body. The skin on my hands began to break down (started bubbling), I felt like my hair was never going to grow back, and I had to have a blood transfusion after finishing chemo because I was so neutropenic. Radiation was scary for me, maybe because it is so intangible. But I cried during the first treatment. I think I was just tired of the whole cancer journey at that point!

I tried to think of treatment as a long dark tunnel with a tiny light at the end of it. Each day, hour, moment, and breath were one step closer to being done with cancer. I feel very fortunate that I had a complete response to chemo and that I had no complications with my journey. Chemo did force my body into menopause, which was almost a whole new distraction away from the cancer because of the massive changes that took place in such a short time.

What motivated you during your diagnosis and treatment process?

I don't know that there was any one thing that motivated me during my diagnosis or during treatment. I just wanted to get through all the things so that I could say I was once again cancer free. I just didn't want to die. So I did what the doctors told me to do, and I left the rest up to the universe.

What did you learn from your experience?

I learned that nothing is finite. I learned that life is precious and SHORT no matter how long we have in these bodies. I also

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Report From ECR 2025: Planet Radiology (continued from page 5)

ECR 2025 truly embodied the vision of Planet Radiology, driving innovation, sustainability, and inclusivity. We eagerly look forward to ECR 2026, which will take place in Vienna from March 4 to 8. Under the theme "Rays of Knowledge," ECR 2026 aims to empower radiologists worldwide with the knowledge and tools to shape the future of medical imaging. With such a compelling vision, the next congress promises to be an inspiring event for the radiology community.

The Patient's Perspective: Kristin Bittrolff (continued from page 11)

learned that it is so important to speak your truth, to compliment and encourage people when the opportunities arise, and try not to take things for granted. I also learned that positive outcomes can happen even in the midst of scary and difficult times.

How has this diagnosis impacted your life?

I'm guessing that I would never have pursued a career in breast imaging had I not been diagnosed and treated for breast cancer. I think I am a little more patient with others, and I am so grateful for the blessings that I have that maybe I wasn't as grateful for before my cancer journey.

Are there any lessons that you think the breast imaging community can learn from your experience?

I think that all members of any breast imaging team can benefit from stepping outside their own perspectives and bases of knowledge and think about how heavy and scary a diagnosis of any kind can be for patients and their families. I think in any profession we can become desensitized to the plethora of complex and ever-changing emotions that come and go with any diagnosis. As professionals we need to remember to pause every now and then and see things from our patients' viewpoints and allow that to help guide us in how we approach their needs.

What advice would you give to other patients who are going through the diagnosis and treatment process for breast cancer?

My advice to patients is to always have a primary care physician who you trust and whose opinion you value, listen to your instincts, ask every question that comes to mind, lean into your support people and mechanisms, and when all else fails, take the journey one breath/moment/appointment at a time.

Member-in-Training Column: The Future of Radiology Readouts: Virtual Versus In-Person Learning (continued from page 10)

residents to engage with faculty members across multiple clinical sites without the need for commuting. This makes it easier for residents to participate while on vacation, during night shifts, or during inclement weather. These platforms also allow residents to learn from experts in the field nationwide and allow lectures to be recorded for future reference. Traditional radiology "hotseat" cases can still be incorporated, 6 which may help prepare residents as the certifying examination shifts to a virtual oral format. Virtual lectures may also offer better visibility of images compared with in-person lectures. 6

Disadvantages of virtual lectures include technical issues that may disrupt the learning experience. This highlights the importance of ensuring that faculty members are well trained on how to use these platforms and that the technology is up to date. As radiology can often be an isolating field, in-person lectures allow residents to connect with co-residents and faculty outside the reading room. The shift to virtual lectures may contribute to increased social isolation and hinder camaraderie. While residents can also attend national educational conferences virtually without the need to travel, this may limit networking opportunities and reduce in-person engagement.

The Future of Radiology Readouts

Radiology readouts appear to be moving toward a hybrid model in which residents are taught using a combination of in-person and virtual readouts. However, more research needs to be conducted to see the impact of virtual radiology education on residents' performance on board examinations and in clinical practice.² Clear expectations regarding virtual readouts may be needed to ensure that residents are receiving adequate readouts.² Applicants to radiology residencies should ask programs about their readout style and be cautious of programs that offer only virtual readouts because this may not offer the best learning experience. As the practice of radiology continues to evolve, residents should be open to these new learning formats and attending physicians should continue to find methods to enhance virtual teaching.

References

- 1. Patil NS, Gunter D, Larocque N. <u>The impact of the COVID-19 pandemic on radiology resident education: where do we go from here?</u> *Acad Radiol.* 2022;29(4):576-583. doi:10.1016/j.acra.2021.11.015
- 2. Awan OA. <u>Virtual radiology readouts after the coronavirus disease (COVID-9)</u> <u>pandemic</u>. *AJR Am J Roentgenol*. 2021;217(3):765-766. doi:10.2214/AJR.21.25607 3. Chen SZ, Kapral N, Dueck N, Gaskin CM, Bueno J, Hanley M. <u>TeleResidents</u>:
- exploring the use of resident home workstations during the COVID pandemic. Acad Radiol. 2022;29(3):450-455. doi:10.1016/j.acra.2021.11.001
- 4. Slanetz PJ, Parikh U, Chapman T, Motuzas CL. <u>Coronavirus disease 2019</u> (<u>COVID-19</u>) and radiology education-strategies for survival. *J Am Coll Radiol*. 2020;17(6):743-745. doi:10.1016/j.jacr.2020.03.034
- 5. Dako F, Awan OA. <u>The radiology readout: how much does it matter?</u> Radiographics. 2021;41(1):316-317. doi:10.1148/rg.2021200023
- 6. Ismail M, Hanna TN, Davis MA, et al. <u>The remote academic radiologist: AJR expert panel narrative review.</u> *AJR Am J Roentgenol.* 2024;222(5):e2329601. doi:10.2214/AJR.23.29601



Diversity, Equity, Inclusion, and Belonging in Breast Imaging: IDEA Articles 2024-2025

By Tanya W. Moseley, MD; Rifat Wahab, DO

Between summer 2024 and winter 2025, the Inclusion Diversity Equity Alliance (IDEA) shared a series of thought-provoking articles examining different facets of diversity, equity, inclusion, and belonging (DEIB) in breast imaging. Our perspectives collectively tell a story of how DEIB principles can transform breast imaging practices from local health care systems to global outreach. By revisiting these articles, let's examine critical concepts and their practical applications to our field.

Summer 2024: Mitigating Health Care Disparities

Our summer 2024 article in the SBI newsletter focused on mitigation strategies for health care disparities within breast imaging. We examined how disparities in access, quality, and outcomes disproportionately affect marginalized communities. The article highlighted evidence-based approaches that breast imaging practices could implement to address these disparities.

As breast imaging radiologists, let's explore how implicit bias can influence diagnostic interpretations and how standardized protocols could mitigate these effects. Let's consider the importance of diverse representation within breast imaging teams and how this diversity correlates with improved patient outcomes. By identifying systemic barriers to equitable care, we can lay the groundwork for understanding how DEIB principles can be embedded within breast imaging practices.

Health care disparities mitigation is not merely aspirational but essential for delivering the highest-quality care to all patients, regardless of background or circumstance.

Fall 2024: Rad IDEAS for Effective Outreach

Building on these foundations, our fall 2024 article in the SBI newsletter introduced the Rad IDEAS (radiology inclusion, diversity, equity, advocacy, and sustainability) framework as a comprehensive approach to successful outreach in breast imaging. This article moved beyond identifying problems to offering structured solutions.

The article detailed how each component of the Rad IDEAS framework contributed to more effective community engagement:

• Inclusion: creating environments where diverse perspectives are actively sought and valued





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- Diversity: recognizing the strength that comes from multiple viewpoints and experiences
- Equity: distributing resources according to need to achieve fair outcomes
- Advocacy: using professional platforms to address systemic harriers
- Sustainability: designing programs with lasting impact

By embracing the Rad IDEAS framework, breast imaging radiologists can build more meaningful community connections and more innovative approaches to health care challenges. Successful outreach requires moving beyond token efforts toward structural change.

Winter 2025: Global Perspectives Through Asha Jyoti II

Our most recent winter 2025 article in the SBI newsletter expanded our focus to global contexts through an analysis of the Asha Jyoti (Ray of Hope) II program in India. This article examined how DEIB principles translate across cultural contexts and how global health initiatives can avoid common pitfalls of international outreach.

DEIB in global contexts requires cultural humility—acknowledging that effective interventions must be shaped by local expertise and needs rather than external assumptions. The article provided recommendations for adapting DEIB principles respectfully across diverse global settings.

Synthesizing Our Findings: The Future of DEIB in Breast Imaging

Collectively, these IDEA publications reveal important truths about DEIB in breast imaging. First, effective DEIB requires both intellectual understanding and practical implementation. Second, principles that work in one context must be thoughtfully adapted for different settings. Third, meaningful change occurs when DEIB moves from isolated programs to integrated practice.

Infection Control and Patient Care for Mobile Imaging in Low-Resource Countries

By Olive Peart, MS, RT(R)(M); Debbie Poelhuis, MS, RT(R)(M), FAEIRS

In many low-resource countries, access to health care can be limited by financial constraints, infrastructure deficiencies, and shortages of medical professionals. Patients in low- and middle-income countries (LMICs) have a higher cancer burden and higher mortality rate from breast cancer than do patients in high-income countries. The five-year survival rate for breast cancer is 90% in high-income countries, as compared with 66% in India and 40% in South Africa.

Mobile imaging, particularly in the form of portable radiology, ultrasonography, and mammography services, plays a crucial role in expanding access to diagnostic care in these underserved regions. Mobile mammography units have been in use for six decades in the United States. Mobile units can lessen the impact of disparities by reaching women who may be unable to travel to in-person clinics, and mobile mammography units have been shown to be effective for subgroups of women. This article explores the critical aspects of infection control and patient care within the context of mobile imaging in low-resource countries, offering practical insights and guidelines to help health care professionals overcome obstacles and improve patient outcomes in these dynamic and often resource-constrained environments.

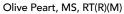
Radiologic imaging professionals, including physicians, radiographers, and mammographers, must navigate these challenges to ensure the accuracy of diagnoses and the well-being of patients.

Infection Control

Infection prevention and control (IPC) measures aim to prevent and control the spread of pathogens between people in health care settings. Effective infection control protocols, appropriate equipment sterilization, and proper handling of imaging devices are essential components of delivering safe and reliable imaging services in these settings. However, providing high-quality patient care in mobile imaging environments presents unique challenges, particularly regarding infection control and patient safety.

Infection control in mobile mammography units in LMICs can be challenging due to resource scarcity. Hand hygiene, however, is a cheap and effective method for preventing infection transmission. This is achieved by washing hands with soap and warm water and/or by rubbing hands with alcohol-based or non-alcohol-based hand sanitizer when a sink is not available.







Debbie Poelhuis, MS, RT(R)(M), FAEIRS

Cleaning and disinfecting the mammography unit, especially the imaging plate and tube, are essential to preventing transmission of germs between patients. These cleaning supplies are often not readily available, and whatever is available should be used. Chemical substances are classified as germicides or disinfectants. Alcohol, commonly used in medical facilities, has antiseptic but not disinfectant properties.

The COVID-19 pandemic brought unprecedented challenges and opportunities to IPC efforts globally. It spurred health care workers and health care systems to implement innovative technologies and strategies for IPC. A new field, virtual IPC (VIPC), was rapidly employed in a variety of contexts throughout the pandemic as health care professionals adapted to and innovated in the changing IPC landscape. VIPC refers to technologies and strategies separated geographically from the point of medical care to control the spread of contagious diseases. VIPC has the potential for high impact in LMICs because it allows for efficient use of limited resources devoted to infection prevention. Although the urgency and severity of the pandemic have diminished, VIPC remains a viable tool for such countries to advance IPC.

Patient Care

Although breast cancer treatment continues to improve, the most effective method to reduce morbidity and mortality rates is early detection with mammographic screening. However, patients may not understand the value of screening if they are asymptomatic or perceive their breast cancer risk to be low. Prioritizing patient care in mobile imaging will not only enhance the quality of care but also ensure better clinical outcomes and patient satisfaction; patient satisfaction is key to ensuring future compliance with screening recommendations. Care should be taken to address image quality, patient safety and well-being, patient experience, efficient use of resources, and compliance with standards. Adhering to patient care

standards in mobile imaging ensures compliance with health care regulations and accreditation requirements, maintaining the quality and safety of services provided.

Mobile mammography relies on obtaining high-quality images for accurate diagnosis and treatment planning. Ensuring the patient's comfort will ensure that the patient is relaxed and cooperative during the procedure, which is essential for obtaining high-quality images. Proper patient care in mobile imaging helps ensure that a mammogram is obtained correctly on the first attempt, minimizing the need for repeat examinations. This efficiency benefits both patients and health care professionals by saving time and resources.

First-time mammography patients may have limited knowledge of the procedure or may be anxious about various aspects of the examination. They may have concerns about the cost of the mammogram and any follow-up treatment, fear of breast compression, fear of radiation, and fear regarding the examination results. Caring for patients' emotional and physical needs during imaging helps create a positive experience, even in challenging circumstances. In many low-resource countries, word of mouth can have a ripple effect in ensuring that other women seek mammography services.

Conclusion

Providing safe and effective patient care in mobile imaging settings within low-resource countries requires a multifaceted approach that prioritizes infection control, patient safety, and the integrity of diagnostic imaging. Radiologic professionals, including physicians and mammographers, are vital for implementing and maintaining rigorous hygiene protocols, ensuring that equipment is properly sterilized, and fostering an environment where patient concerns are addressed with empathy and professionalism. By leveraging available resources, training local health care workers, and adhering to international standards for infection prevention and patient care, health care professionals can deliver mobile imaging services more safely and effectively. Despite the inherent challenges, the potential for mobile imaging to bridge health care gaps in underserved areas is immense.

As mobile imaging continues to grow in popularity and necessity, ongoing education and collaboration among health care professionals are essential to overcoming logistical and clinical obstacles. By sharing best practices, promoting innovation, and maintaining a steadfast commitment to quality care, radiologic professionals can help ensure that mobile imaging becomes a sustainable and impactful tool in improving health care outcomes for vulnerable populations worldwide.

Further Reading

1. Borg MA. Lowbury Lecture 2013. Cultural determinants of infection control behaviour: understanding drivers and implementing effective change. J Hosp Infect. 2014;86(3):161-168. doi:10.1016/j.jhin.2013.12.006
2. Picton-Barnes D, Pillay M, Lyall D. <u>A systematic review of healthcare-</u>

associated infectious organisms in medical radiation science departments. Healthcare (Basel). 2020;8(2):80. doi:10.3390/healthcare8020080 3. Jimenez YA, Lewis SJ. Infection prevention and control in the medical imaging environment: a scoping review. Insights Imaging. 2023;14(1):121. doi:10.1186/s13244-023-01470-1

4. Pollack EB, Mollura DR, Chong A, Harvey SC, Scheel JR. <u>A global perspective on screening</u>. *J Breast Imaging*. 2020;2(4):296-303. doi:10.1093/jbi/wbaa047 5. The global breast cancer initiative. World Health Organization. Accessed March 31, 2025. https://www.who.int/initiatives/global-breast-cancer-initiative
6. Mango VI., Ha R, Nguyen B, et al. RAD-AID Asha Jyoti mammogram quality.
assessment in India: optimizing mobile radiology. J Am Coll Radiol. 2016;13(7):831-834. doi:10.1016/j.jacr.2016.03.018
7. Negi J, Nambiar D. Intersectional social-economic inequalities in breast cancerscreening in India: analysis of the National Family Health Survey. BMC Womens Health. 2021;21(1):324. doi:10.1186/s12905-021-01464-5

8. India. RAD-AID. Accessed March 31, 2025. https://rad-aid.org/countries/asia/india/9. Ro V, Jones T, Silverman T, et al. Patient, primary care provider, and stakeholder.

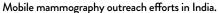
perspectives on mammography screening frequency: lessons learned from a qualitative study. BMC Cancer. 2022;22(1):819. doi:10.1186/s12885-022-09900-x

10. Tomlinson-Hansen SE, Budh DP, Sapra A. Breast cancer screening in the average risk patient. In: StatPearls [Internet]. StatPearls Publishing; 2024 Jan-. Updated October 3, 2024. Accessed March 31, 2025. https://www.ncbi.nlm.nih.gov/books/NBK556050/

11. Mammography: what you need to know. US Food and Drug Administration. Accessed November 30, 2024. https://www.fda.gov/consumers/consumerupdates/mammography-what-you-need-know











Breast Imaging Assessment of Neoadjuvant Therapies

By Pamela J. DiPiro, MD

Neoadjuvant therapy (NAT) is commonly used for patients with large and/or locally advanced breast cancers before definitive surgical treatment. The aim of presurgical systemic therapy is to downstage the extent of disease in the breast and/ or regional lymph nodes, thus allowing for less extensive surgery. In addition, NAT allows for direct observation of treatment response and may lead to more individualized treatment plans and avoidance of ineffective therapies. Achieving a pathological complete response following NAT also holds prognostic significance. Pooled data from clinical trials of patients with breast cancer receiving NAT revealed improved survival in patients with pathological complete response compared with those who did not attain pathological complete response and showed the greatest prognostic value in patients with aggressive tumor subtypes, such as triple-negative and ERBB2 (formerly HER2) – positive tumors.¹

Historically, breast imaging radiologists have provided noninvasive means of assessing response to NAT using standard imaging modalities including mammography, ultrasonography, and magnetic resonance imaging (MRI). More recent studies have supported contrast-enhanced mammography as an alternative to MRI for NAT response assessment when MRI is unavailable or contraindicated.²⁻⁴ MRI is the most accurate method of detecting pathological complete response or residual disease, ^{5,6} although it has different sensitivities across tumor subtypes.⁷

Positron emission tomography/computed tomography (PET/CT) has long held a role in breast cancer imaging, including staging, detection of distant metastases, and evaluation of therapeutic response in patients with locally advanced or metastatic breast cancer. There has also been significant interest in using PET/CT to assess response to NAT. Multiple studies have compared PET/CT and MRI in this role, yielding mixed results. A recent literature review showed that MRI has greater sensitivity for assessing pathological complete response after NAT in patients with breast cancer, yet PET/CT has greater specificity.⁸ A meta-analysis of diagnostic accuracy studies comparing fluorodeoxyglucose F18 (FDG)-PET/CT and MRI for assessing response to NAT in patients with breast cancer revealed that after therapy, MRI was more accurate in predicting pathologic response, but during therapy (eg, after 1-3 cycles), FDG-PET/CT was more sensitive.⁹

Although interim PET-CT scans are widely accepted in the treatment monitoring of some malignancies (eg, lymphoma), their role in assessing or guiding breast cancer NAT is not yet established. Several studies have



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shown that FDG-PET/CT has potential for the early prediction of pathological complete response to NAT, most notably in aggressive breast cancer subtypes such as triple-negative or ERBB2-positive breast cancer.¹⁰

Recently, there has been significant interest and several clinical trials using FDG-PET/CT in the early evaluation of NAT for ERBB2-positive breast cancers. The ongoing phase 2 PHERGain trial uses early metabolic assessment with FDG-PET/CT to identify patients eligible for a chemotherapy-free treatment regimen.¹¹ Standard care for early-stage ERBB2-positive breast cancer is chemotherapy and ERBB2 receptor blockade, with escalation to dual ERBB2 blockade with both trastuzumab and pertuzumab in patients with high risk of recurrence. Recently published results reported enrollment of 356 patients in 45 European hospitals to either group A (standard chemotherapy with trastuzumab and pertuzumab) or group B (trastuzumab and pertuzumab with or without endocrine therapy.) PET/CT scans were performed at baseline and after 2 treatment cycles. Group B patients underwent tailored treatment based on PET/ CT results: PET responders continued dual ERBB2 blockade for 6 cycles, and nonresponders were switched to receive 6 cycles of chemotherapy. All patients underwent surgical treatment upon completion of NAT. Of the patients that received only ERBB2 blockade, nearly 80% achieved a PET/CT response, with a 3-year invasive disease-free survival rate of 95.4%. Chemotherapy was safely omitted in these patients, who also had the fewest treatment-related adverse events.

The EA1211/DIRECT study is an ECOG-ACRIN-sponsored phase 2 clinical trial that is presently accruing. This trial will investigate whether early evaluation with FDG-PET/CT can predict response to standard-care NAT and be used to tailor treatment and potentially allow for less intensive regimens while still achieving pathological complete response in patients with low risk.

Fortieth Anniversary of the SBI:

A Brief History of the SBI Postgraduate Conference

By Michael N. Linver, MD; Yasmeen J. Fields, MS, CAE

A conference devoted specifically to breast imaging with over 1000 attendees was the furthest thing from the mind of Dr. Marc Homer when in 1985 he brought together five other breast imaging specialists—Drs. Mike Moskowitz, Stephen Feig, Edward Sickles, Carl D'Orsi, and Harold Moskowitz—to create a society. Thus the SBI was born. Their first meeting was in November 1985 along with 23 other breast imaging specialists they had invited to join them. Dr. Homer was elected SBI president and served in that capacity until 1988, when he was succeeded by Dr. D'Orsi. The SBI meetings were maintained every six to 12 months and continued to be primarily informal case presentations and discussions until the annual meeting of the ACR in Los Angeles in 1988. There for the first time, at the urging of Dr. Sickles, the SBI meeting included a structured scientific session with talks by Drs. Gloria Frankel, Gerald Dodd, Valerie Jackson, and Marc Homer.

In 1990, Dr. Sickles was elected SBI president and introduced a two-tiered membership system. The founding members and the 23 breast imaging specialists invited to the first meeting were designated *fellows*. The SBI also opened its membership to anyone in the health professions interested in joining; these individuals were designated *members*. Members could become fellows by applying and meeting certain criteria for fellowship. With this new format, the SBI held its next meeting in Chicago in November 1990 during the Radiological Society of North America (RSNA) meeting and included a scientific program with presentations by Drs. Linda Warren and Harold Laskey, among others.

The SBI meeting concept continued to evolve and expand. With membership now open to a much larger segment of the radiology world, the number of members began to swell. Consequently, in 1993, under the leadership of the next president, Dr. Val Jackson, the SBI launched its first full-scale SBI Postgraduate Course in Amelia Island, Florida, attracting over 600 attendees and the largest faculty of any previous breast imaging meeting anywhere. Vendors were invited to show their latest wares and became valued fixtures at the meetings thereafter.

From that point on, the SBI meetings included a four-day scientific conference for all attendees and a separate business meeting for fellows only. Fellows also met for a short business meeting at the RSNA conference every year. The postgraduate courses were held





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every other year, alternating with the National Conference on Breast Cancer, which the ACR sponsored and had begun in the 1930s.

The second SBI Postgraduate Course was held in Disney World, Florida, in 1995. It was there that the tradition of awarding the Gold Medal for distinguished contributions to breast imaging was begun. In addition, an Honorary Member award was established to honor nonmembers who had made significant contributions to breast imaging. That year, three outstanding breast imaging radiologists were awarded the Gold Medal: Dr. Robert Egan, Dr. Gerald Dodd, and Dr. Mike Moskowitz. The Honorary Member award was given to Ms. Marie Zinninger. Dr. Lawrence Bassett presided over the conference as SBI president.

In 1997, the third Postgraduate Course took place in San Diego under the leadership of SBI President Carol Stelling. Larry Bassett received the SBI Gold Medal, and Robert Smith, PhD, the brilliant epidemiologist at the American Cancer Society, was the recipient of the Honorary Member award.

In 1999, the SBI Postgraduate Course moved to Boston for its fourth iteration. Dr. Bill Eklund was serving as president, and Ed Sickles received the Gold Medal. The Honorary Member award was given to physicist Arthur Haus for his groundbreaking work on filmscreen technology.

Leading the SBI into the new century, President Stephen Feig presided over the 2001 Postgraduate Course in San Diego. The Gold Medal was awarded to Dr. László Tabár, and the Honorary Member award was given to Pamela Wilcox, RT.

In 2003, the sixth Postgraduate Course returned to Florida, this time in Hollywood. Dr. Barbara Monsees oversaw the course as SBI president. Dr. Stephen Feig received the Gold Medal, and Rita Heinlein, RT, received the Honorary Member award. A one-day concurrent technologists' program was introduced to give technologists their own educational program while they also attended the Postgraduate Course.

Continued on page 18>

Fortieth Anniversary of the SBI: A Brief History of the SBI Postgraduate Conference (continued from page 17)

SBI went north of the border to Vancouver in 2005 for the seventh Postgraduate Course under the aegis of President Dr. David Dershaw. Dr. Kopans was awarded the Gold Medal, and pathologist Dr. C. Whitaker Sewell received the Honorary Member award.

In 2007 the eighth SBI Postgraduate Course returned to Hollywood, Florida, with Dr. R. James Brenner as SBI president. He presented the Gold Medal to Dr. Val Jackson. SBI offered scholarships to cover registration and travel expenses to residents who applied and were selected to attend the meeting.

SBI went back out west in 2009 to Colorado Springs, Colorado, in the heart of the Rockies. Dr. Carol Lee served as president, and Dr. Carl D'Orsi received the Gold Medal. The Honorary Member award was given to Stephen Duffy for his important work on screening data with Dr. Tabár. A highlight of the meeting was a surprise spring snowstorm!

In 2011, San Antonio, Texas, became the site of the 10th Postgraduate Course, led by the capable hands of President (and Texas resident) Dr. W. Phil Evans. The Gold Medal was awarded to Dr. Barbara Monsees, and Debra Deibel, RT, received the Honorary Member award. For all of his extraordinary contributions, Dr. Kopans was honored with a Special Recognition award.

In 2013, the 11th Postgraduate Course returned to California, this time in Los Angeles, under the guidance of President Dr. Debra Monticciolo. Dr. Dershaw received the Gold Medal, and Priscilla Butler, PhD, was the recipient of the Honorary Member award. This was the final year the SBI Postgraduate Course was offered. The course had over 900 attendees, the largest number to date.

In 2015, the SBI biennial Postgraduate Course and the ACR biennial National Conference on Breast Cancer were replaced by a new annual meeting called the SBI/ACR Breast Imaging Symposium. The first symposium took place in Orlando, Florida, and SBI President Dr. Murray Rebner presided. The SBI Gold Medal was awarded to Dr. Evans, and the Honorary Member award was given to Martin Yaffe, PhD. Highlights included the opening of SBI membership to international radiologists, technologists, and radiology trainees.

In 2016, the second SBI/ACR Breast Imaging Symposium found its way back to Texas, this time in Austin. The meeting was presided over by President Dr. Elizabeth Morris. She presented the SBI Gold Medal to Dr. Carol Lee. The Honorary Member award was presented to Mr. Shawn Farley. For the first time, SBI meeting attendance topped the 1000 mark.

The year 2017 found the third SBI/ACR Breast Imaging Symposium back in Los Angeles, with Dr. Morris continuing as SBI president. The late Dr. Peter Dempsey was awarded the Gold Medal, and Louise Miller, RT, received the Honorary Member award. Highlights included the attendance of a cadre of residents and fellows through the newly launched Research and Education Fund to present their original research and the first inclusion of an SBI-sponsored, eight-hour tomosynthesis course featuring a hands-on workstation-based workshop for interpretation of a large teaching set of tomosynthesis cases.

In 2018, the fourth SBI/ACR Breast Imaging Symposium was held in Las Vegas, Nevada. The SBI president was Dr. Wendy DiMartini, who presented the Gold Medal to Dr. Linda Warren. In addition, a Special Recognition award was presented to Dr. Marc Homer.

The year 2019 saw the fifth SBI/ACR Breast Imaging Symposium return to Hollywood, Florida. The SBI president was Dr. Jay Baker. Dr. Debra Monticciolo received the Gold Medal, and Dr. Nola Hylton received the Honorary Member award.

In 2020, the sixth SBI/ACR Breast Imaging Symposium was to be convened in Denver, Colorado, but immediately before the symposium was scheduled to begin, the COVID-19 pandemic shut down the entire country and the symposium was canceled. President Dr. Margarita Zuley was to present the Gold Medal to Dr. Michael Linver and the Honorary Member award to Dr. Theresa Bevers. Due to the symposium's cancellation, the awards were delayed and were instead to be presented at the 2021 symposium.

In 2021 most of the country was still shut down by the pandemic, so the decision was made to switch the sixth SBI/ACR Breast Imaging Symposium to a virtual format. SBI offered complimentary registration to all international attendees outside the United States and Canada. As a result, there were over 2144 international attendees and a total of 3409 attendees overall.

The new president, Dr. Jessica Leung, presented Dr. Linver and Dr. Bevers their awards virtually. Despite the disappointment of again having to cancel the live symposium, the virtual format was met with much enthusiasm as well as some sadness. The networking and personal exchanges between colleagues and vendors, so much of the added value of the symposium, were sorely missed by all.

In 2022, the country broke out of its COVID-19 pandemic doldrums, and the seventh SBI/ACR Breast Imaging Symposium took place in Savannah, Georgia. This was a hybrid meeting led by President Dr. Emily Conant, with 545 in-person attendees and



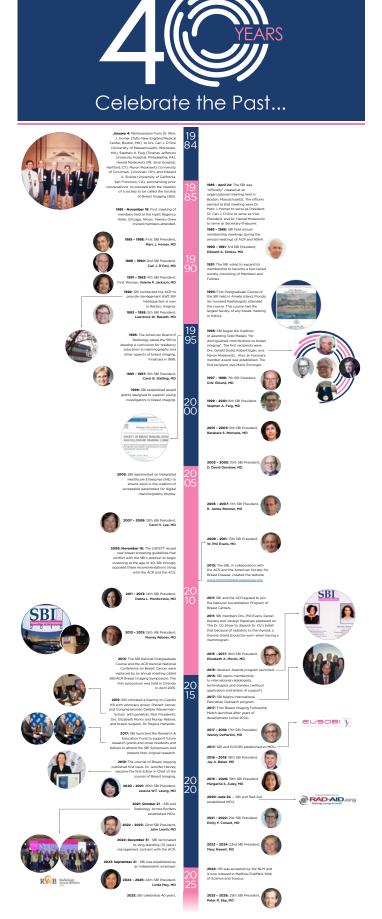
over 900 online attendees. In an effort to compensate for the loss of an entire year of the symposium and its awards, two outstanding individuals received Gold Medals: Dr. Mark Helvie and Dr. Edward Hendrick. Fittingly (given her first name), the Honorary Member award was presented to Dr. Savannah Partridge.

In December 2022, SBI terminated its long-standing management contract of 31 years with the ACR. As a result, the sponsorship of the 2023 annual meeting was now the sole responsibility of the SBI and the meeting became the SBI Breast Imaging Symposium. This meeting took place at National Harbor, outside Washington, DC, under the guidance of President Dr. John Lewin. He presented the Gold Medal to Dr. Murray Rebner. Going back to an entirely in-person format and still recovering from the impact of the pandemic, the meeting had 845 attendees.

The year 2024 saw the SBI again go north of the border, this time to Montreal, where SBI joined forces with the Canadian Society of Breast Imaging for the collaborative second SBI Breast Imaging Symposium. The president was Dr. Mary Newell, who presented the Gold Medal to Dr. Elizabeth Morris. Ms. Tiffany Gowan received the Honorary Member award. As a special feature, the first SBI talent show was included in the program. SBI broke its own record again with 1209 attendees!

The year 2025 marks the 40th anniversary of the SBI as an organization. A series of gala events is planned for the third SBI Breast Imaging Symposium, to be held for the second time in Colorado Springs, Colorado. The current president, Dr. Linda Moy, will be presiding, and she will be honoring Dr. Paula Gordon as Gold Medal recipient and Ms. JoAnn Pushkin as Honorary Member. Attendance is again expected to exceed 1200 people!

The SBI has undergone a remarkable evolution from being a twinkle in the eye of Dr. Marc Homer and five of his colleagues in 1985 to becoming the world's largest medical organization devoted to breast imaging and a major player on the world stage. Over the 40 years since SBI's inception, breast imaging has evolved with spectacular advances as well, and through the annual symposia, SBI has not only kept its members informed of these advances but has also taken them to the leading edge of our subspecialty. It is with great pride that we can look back at these symposia and marvel at their role in shaping the SBI as a true game changer in the history of medicine!



SBI Social Media Committee Update: Project LinkedIn

By Rachel Preisser, MD; Jessica Porembka, MD

In addition to actively promoting and amplifying the SBI annual symposium and Breast Cancer Awareness Month every year in April and October, the SBI Social Media Committee works to foster community and connection on social media platforms year round.





Rachel Preisser, MD

Jessica Porembka, MD

In the ever-changing milieu of digital communication, new platforms present opportunities and challenges alike. Although SBI has been well established on X, Facebook, and Instagram for some time, recent expansion onto LinkedIn has proven to be a very successful way to engage current members, potential members, and stakeholders in the work and mission of the society. We are excited to share data outlining the growth of the SBI LinkedIn page and some personal experiences of committee members using the platform.

Engagement and Growth

The SBI launched their LinkedIn presence in August 2023. In the subsequent 18 months, the SBI LinkedIn page has accrued a following of nearly 2500 profiles and boasts the fastest-growing audience of all the platforms on which SBI has a presence. The report from February 2025 showed 6589 monthly impressions from SBI content and a 20.6% engagement rate per impression. In February 2025 there were 1358 unique interactions with SBI content, an increase of 76% from the previous month. Although most individuals interacting with the SBI on LinkedIn are in the health care sector, various other sectors of industry are also represented; these include business development, sales, education, operations, and research. On LinkedIn, the SBI's reach is global, with users from nearly every continent. Engagement is highest in the United States. Other top locations include the United Kingdom, Egypt, Canada, and Saudi Arabia. Top-performing content recently included a spotlight on a Journal of Breast Imaging article, highlights of events during World Cancer Day and Black History Month, and educational posts on mammography.

Professional Opportunities and More

"LinkedIn is more than just a platform to connect with others professionally—it's been an invaluable tool for discovering new opportunities, staying on top of innovations, and building meaningful relationships within the medical community," said Dr. Rachel Preisser, Social Media Committee chair.

LinkedIn is often seen as a place for job seekers to connect with recruiters, and certainly many use it in that capacity. However, the platform offers much more. It allows for professionals to connect across various disciplines, from radiologists and technologists to

researchers, industry leaders, and health care administrators. These connections allow for synergistic collaborations that would be difficult to achieve otherwise.

Beyond professional growth, LinkedIn is an excellent way to stay updated on charitable initiatives and technical innovations within radiology. "LinkedIn allows me to follow companies, attend webinars, and engage in discussions with thought leaders. Through LinkedIn I've learned about fundraising opportunities, awareness campaigns, and outreach programs that I might not have otherwise come across," said Dr. Preisser.

Another benefit LinkedIn offers is the opportunity to share professional accomplishments and articles that can contribute to credibility and visibility within the industry. It enables celebration of achievements, helping to foster a culture of recognition and support within the community.

From a recruitment perspective, LinkedIn can be invaluable for attracting new employees. The platform allows a glimpse into the professional personas of candidates and how they might fit into a department's culture. For job seekers, LinkedIn gives insight on the values, work environment, and team dynamics of a potential employer. Through connections on the platform, applicants can hear directly from current and former employees. The platform is an opportunity to get an authentic perspective on the daily experience, which can be a deciding factor when considering an opportunity.

"One of the most useful features for me has been the ability to connect directly with others in the field," continued Dr. Preisser. Whether one is seeking advice, exploring potential collaborations, or discussing emerging trends, LinkedIn encourages conversations. Direct exchanges can lead to new professional relationships that extend beyond LinkedIn into real-world collaborations. It's an essential tool for building a robust network.

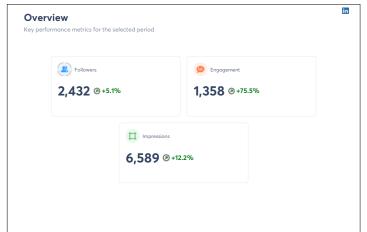
A Place to Start Connecting

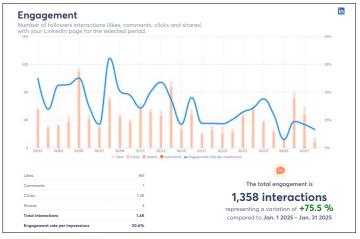
Given the variety of offerings on the platform and the SBI's strong presence, LinkedIn is a great place for radiologists who are new to social media to get started. "As a breast imager just stepping into the world of social media and specifically LinkedIn, I've come to

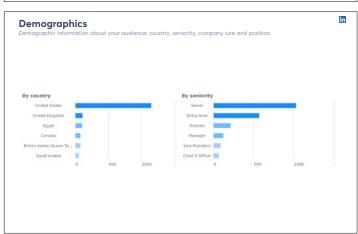


realize the importance of platforms to connect and grow our breast imaging community by creating a supportive network of fellow breast imagers," said Social Media Committee member Dr. Jessica Porembka. "Through LinkedIn, I can connect with the breast imaging community, follow thought leaders, share knowledge, and exchange ideas. Engaging with peers and industry leaders not only enhances

my understanding of the latest advancements in breast imaging but also fosters collaborations that can lead to innovative practices and improved patient care. Networking is so much more than just career advancement; it is truly about contributing to a community dedicated to excellence in radiology. Let's connect, learn, and grow together!"









What's New in the News: Breast Imaging Assessment of Neoadjuvant Therapies (continued from page 16)

As breast imaging radiologists continue to assess response to NAT and offer significant anatomic detail required by surgeons and radiation oncologists, our nuclear medicine colleagues may play an increasingly important role in early prognostication and providing information to help tailor treatment regimens.

References

- 1. Cortazar P, Zhang L, Untch M, et al. <u>Pathological complete response and long-term clinical benefit in breast cancer: the CTNeoBC pooled analysis</u>. *Lancet*. 2014;384(9938):164-172. doi:10.1016/S0140-6736(13)62422-8
- 2. Bernardi D, Vatteroni G, Acquaviva A, et al. <u>Contrast-enhanced mammography versus MRI in the evaluation of neoadjuvant therapy response in patients with breast cancer: a prospective study.</u> *AJR Am J Roentgenol.* 2022;219(6):884-894. doi:10.2214/AJR.22.27756
- 3. Hogan MP, Horvat JV, Ross DS, et al. <u>Contrast-enhanced mammography in the assessment of residual disease after neoadjuvant treatment</u>. *Breast Cancer Res Treat*. 2023;198(2):349-359. doi:10.1007/s10549-023-06865-8
- 4. Jochelson MS, Lobbes MBI. <u>Contrast-enhanced mammography: state of the art.</u> Radiology. 2021;299(1):36-48. doi:10.1148/radiol.2021201948
- 5. Scheel JR, Kim E, Partridge SC, et al; ACRIN 6657 Trial Team and I-SPY Investigators Network. MRI, clinical examination, and mammography for preoperative assessment of residual disease and pathologic complete response after neoadjuvant chemotherapy for breast cancer: ACRIN 6657 trial. AJR Am J

- Roentgenol. 2018;210(6):1376-1385. doi:10.2214/AJR.17.18323
- 6. Marinovich ML, Houssami N, Macaskill P, et al. <u>Meta-analysis of magnetic resonance imaging in detecting residual breast cancer after neoadjuvant therapy</u>. *J Natl Cancer Inst*. 2013;105(5):321-333. doi:10.1093/jnci/djs528
- 7. Reig B, Lewin AA, Du L, Heacock L, Toth HK, Heller SL, et al. <u>Breast MRI for evaluation of response to neoadjuvant therapy</u>. *Radiographics*. 2021;41(3):665-679. doi:10.1148/rg.2021200134
- 8. Caracciolo M, Castello A, Urso L, et al. <u>Comparison of MRI vs. [18F]FDG</u> <u>PET/CT for treatment response evaluation of primary breast cancer after neoadjuvant chemotherapy: literature review and future perspectives. *J Clin Med.* 2023;12(16):5355. doi:10.3390/jcm12165355</u>
- 9. Sheikhbahaei S, Trahan TJ, Xiao J, et al. <u>FDG-PET/CT and MRI for evaluation of pathologic response to neoadjuvant chemotherapy in patients with breast cancer: a meta-analysis of diagnostic accuracy studies.</u> *Oncologist.* 2016;21(8):931-939. doi:10.1634/theoncologist.2015-0353
- 10. Groheux D, Mankoff D, Espié M, Hindié E. 18F-FDG PET/CT in the early prediction of pathological response in aggressive subtypes of breast cancer: review of the literature and recommendations for use in clinical trials. Eur J Nucl Med Mol Imaging. 2016;43(5):983-993. doi:10.1007/s00259-015-3295-z
- 11. Pérez-García JM, Cortés J, Ruiz-Borrego M, et al; PHERGain Trial Investigators. 3-Year invasive disease-free survival with chemotherapy de-escalation using an 18F-FDG-PET-based, pathological complete response-adapted strategy in HER2-positive early breast cancer (PHERGain): a randomised, open-label, phase 2 trial. Lancet. 2024;403(10437):1649-1659. doi:10.1016/S0140-6736(24)00054-0

Join the *Journal of Breast Imaging*Reviewer Community

By Alexa Dugan

Do you want to make a difference in the field of breast imaging? Are you eager to contribute to the advancement of research and education in our field? The *Journal of Breast Imaging (JBI)* is looking for new reviewers to join our community and help authors improve their manuscripts while ensuring the integrity of the information imparted.



Alexa Dugan

JBI is our society journal that provides high-quality, evidence-based content for the global breast imaging medical community. It aims to advance the field of breast imaging, with a particular focus on improving patient care and outcomes. JBI publishes original research articles as well as literature reviews of important scientific, educational, and clinical topics. JBI maintains a strong clinical focus with broad appeal and the goal of advancing the field of breast imaging.

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Recent History:

Likely Reasons Why the US Preventive Services Task Force, Once Again, Supports Screening for Women Aged 40 to 74 Years

By Daniel B. Kopans, MD, FACR, FSBI



Daniel B. Kopans, MD, FACR, FSBI

Sadly, misinformation and lies, similar to what we now see in politics, have existed with regard to breast cancer screening dating back to the 1960s: from the false claim that breast cancer was systemic before it could be found such that early detection would not matter (disproven by randomized controlled trials [RCTs]), to the false claim that it would not be possible to screen large numbers of women efficiently and effectively (disproven by the Breast Cancer Detection Demonstration Project), to the false claim that the radiation from mammograms would cause more cancers than would be cured, to the false claim that screening did not work until the age of 50 years, to the false claim that thousands of breast cancers found by mammography would disappear if left undetected, to the false claim that screening leads to massive overdiagnosis. These false claims and others, over the years, have been repeatedly disproven by science and evidence.

Standing with science (with a weak moment in 1989 supporting biennial instead of annual screening for women aged 40-49 years), the ACR has persistently made the arguments and established the proof that annual screening should include women aged 40 to 74 years—the ages of the women who participated in the RCTs that proved that screening can save the lives of women at these ages.

The power of misinformation has been demonstrated by the oscillation among some of the guidelines panels over the years. The United States Preventive Services Task Force (USPSTF) is an unfortunate example, having supported screening for women aged 40 to 74 years, then dropping support for screening until the age of 50 years, then once again supporting starting screening at the age of 40 years!

In 2021 the USPSTF, still advising women to delay screening until the age of 50 years, began a review of their guidelines. They solicited comments from the public. In addition, the cochair of the USPSTF was on the faculty at Massachusetts General Hospital. Responding to the request for comments, I sent the following to the USPSTF as well as directly to the cochair. These

facts should have helped to move the USPSTF to, once again, support screening for women aged 40 to 49 years.

At the end of this summary (under the Additional Information on Overdiagnosis heading), I have provided additional material on overdiagnosis that I had not included in my original comments but that represents claims that some have raised and you might encounter.

Comments on the 2021 Plan for the USPSTF Review of Breast Cancer Screening Guidelines

The USPSTF Screening Guidelines Over Time

- 1. In 2005 the USPSTF supported annual screening for all women aged 40 and over.¹
- 2. In 2009 the USPSTF dropped support for screening women aged 40 to 49 years and urged women aged 50 to 74 years be screened every two years.²
- 3. In 2016 the USPSTF advised that women aged 50 to 74 years be screened every two years³ despite the fact that the Task Force continued to admit that the most lives are saved by screening beginning at the age of 40 years. They stated, "the USPSTF found adequate evidence that mammography screening reduces breast cancer mortality in women aged 40 to 74 years."
- 4. Apparently the USPSTF is, once again, preparing to review their guidelines for breast cancer screening.

Avoiding the Advice of Experts

The recent pandemic has demonstrated the tragic consequences that result from ignoring science, evidence, and the analysis and advice of experts while being guided by inexpert advice. In a supposed effort to avoid biases from panel members who have a conflict of interest (COI), the USPSTF has prevented anyone with actual expertise in breast cancer screening and the issues involved from serving on the Task Force panel. Consequently, the

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Recent History: Likely Reasons Why the US Preventive Services Task Force, Once Again, Supports Screening for Women Aged 40 to 74 Years (continued from page 23)

panel members have been unable to critically sort through the available data and understand the validity or lack of validity of the material they have been asked to review.

This has also given advisers to the panel extraordinary influence to guide an experientially and factually inexpert panel. In the past, the vast majority of advisers to the Task Force Panel reviewing breast cancer screening have been individuals who have expressed their opposition to screening and have clearly had great influence on the panel. Many of the advisers have been viewed as having no COI when, in fact, this is not true. Without an obvious COI it is impossible to gain expertise in a field. Experts such as I, who earn a living related to breast cancer screening, have an obvious and open COI. However, advisers who have received and continue to receive grant support for their research efforts are viewed as free of COI. In fact, theirs is a far less obvious COI. Granting agencies (including the National Cancer Institute [NCI]) and foundations have undeclared biases. When the work of a grantee supports the biases of the grantor, grants are likely to be renewed. Grant or foundation support is a far more insidious COI than those that are out in the open.

The practice of excluding experts should stop. COIs should be detailed, but rather than being excluded, experts are critical for an accurate analysis of the data to provide the most factual and evidence-based advice. Guidelines panels, including the USPSTF, should have leading experts involved in their decisions and the public should be provided with minority reports should there be unresolvable disagreements.

Facts

- 1. The RCTs of breast cancer screening proved that screening and early detection of breast cancer reduces deaths for women aged 40 to 74 years (the ages of the women who participated in the trials).⁵ Confusion had been created in 1993 by the inappropriate use of subgroup analysis⁶ to falsely claim no benefit for women aged 40 to 49 years. The 1993 claims also ignored the fact that an immediate benefit is not expected from a periodic screening program. ⁷ The NCI position was later refuted with longer follow-up8 that showed a clear benefit for screening women aged 40 to 49 years and thus benefit for all women (the RCTs targeted average populations) aged 40 to 74 years. Although it has been suggested that these trials are old, they provide the fundamental proof that early detection reduces deaths.
- 2. Because of noncompliance and contamination, the RCTs have

- underestimated the benefit of early detection. The results of these trials should be viewed as the lower level of the likely benefit.
- 3. The USPSTF should be aware that the Edinburgh trial is no longer cited with the RCTs because of an apparent imbalance in the socioeconomic factors of participants.
- 4. The Canadian National Breast Screening Studies (CNBSS) should also have been dropped from guidelines analyses years ago. Not only are their results major outliers among the RCTs but numerous critical analyses over the years have also challenged their validity. 9-23 The trials were compromised by poor-quality mammography^{24,25} and their data compromised by the fact that they violated the fundamental requirements of RCTs by having a nonblinded allocation process.^{26,27} This resulted in a statistically significant excess of women with advanced cancers being assigned to the screening arm of CNBSS1.^{28,29} It has been claimed that the CNBSS trials showed a major (22%) rate of overdiagnosis when in fact their own data show that there was only a 4% difference in cancers diagnosed between the two arms. 30 The CNBSS results are compromised and unreliable and should not factor into the USPSTF review.31
- 5. Numerous observational studies have validated the benefit of screening women starting at the age of 40 years in the general population, with reductions in deaths of as much as 40% or more 32-49
- 6. In a review of the incidence of death among more than 500,000 women in Sweden, there was some benefit from improvements in therapy, but those who participated in mammography screening had a 41% reduction in their risk of dying from breast cancer within 10 years compared to those who had not participated in screening.⁵⁰
- 7. There are no data (zero) that show that any of the parameters of screening change abruptly at age 50 years or any other age.⁵¹ The RCTs proved mortality reduction for women aged 40 to 74 years. The threshold for initiating screening at the age of 50 years is completely arbitrary with NO scientific support. Grouping of data and averaging has falsely suggested a legitimate threshold when the data show that none exists. The only reason to use the age of 50 years as a threshold is based on individual and scientifically unsupportable biases by analysts. In fact, all major groups, including the USPSTF, agree that the

most lives are saved by annual screening starting at the age of 40 years. There are more years of life lost to breast cancer among women aged 40 to 49 years than among women aged 50 to 59 years. 52

- 8. Radiation risk for the breast from mammography (there is little exposure to any other susceptible organs) drops rapidly with increasing age so that by the age of 40 years it is unmeasurable and may be nonexistent. Even the extrapolated risk is below even the smallest amount of benefit from screening. ^{53,54}
- The NCI/Cancer Intervention and Surveillance Modeling Network (CISNET) models all predict that the most lives are saved by annual screening starting at the age of 40 years.⁵⁵
- 10. Despite specious arguments to the contrary, screening has been shown to reduce the rate of advanced cancers, ⁵⁶⁻⁶⁷ which has been used as a surrogate for death since these are incurable cancers.
- 11. In the Harvard Hospitals, 71% of deaths from breast cancer were among the 20% of women who were not participating in screening despite having access to modern therapies.⁶⁸ Spencer et al had similar results.⁶⁹
- 12. The claim that the RCTs did not reduce all-cause mortality is specious. 70 All-cause mortality is appropriate in treatment trials where everyone has breast cancer and most of the deaths will be due to breast cancer. You want to be certain that the treatment is not causing an unforeseen risk. In radiation therapy trials, this revealed the unexpected risk that radiation therapy damaged the coronary arteries. In screening trials, however, most deaths will be due to other causes since breast cancer only accounts for 3% of deaths each year from all causes. If you reduce breast cancer deaths by 30% then this will reduce all-cause mortality by 1%. It would take a trial of 2.5 million women to prove that this major decrease in breast cancer deaths significantly reduced all-cause mortality. It would be more appropriate to look at all-cause mortality among women with breast cancer in the RCTs, and this does show that screening reduces the rate of all-cause mortality.⁷¹
- 13. The CISNET models show that the lives of as many as 100,000 women who are now in their 30s and who will die by waiting until the age of 50 years and being screened every two years could be saved by annual screening starting at the age of 40 years.⁷² Among just the women who are 40 years old today, if they wait until the age of 50 years to be screened every two years, as many as 13,770 will die whose

lives could be saved by annual screening beginning at the age of $40~\text{years}.^{73}$

The claim of massive overdiagnosis has been manufactured by guessing that the incidence of breast cancer was not steadily increasing as screening was being introduced. Since no one has ever seen a mammographically detected invasive breast cancer disappear on its own (the few "miracles" have all been clinically evident), and Arleo et al showed that none of almost 250 invasive cancers that were untreated regressed or disappeared, 74 then waiting until age 50 years and screening every two years will not reduce overdiagnosis if it even exists, because the cancers will still be there.

14. Delaying screening will reduce recalls from screening (inappropriately called *false positives*) for a few extra pictures or an ultrasound. The recall rate is approximately 10% (approximately the same recall rate as cervical cancer [Pap] testing) and there is a very small chance of having an imaging-guided needle biopsy using local anesthesia with a fairly high yield of cancer. Approximately 2% to 4% of women screened will be advised to have an imaging-guided needle biopsy and 20% to 40% of these lesions will prove to be malignant.

There is no question that recalls make all of us anxious and recalls from screening are no exception, but for most the anxiety is short-lived.⁷⁵ Given that the major harm (harm is pejorative; it should be called *risk*) from screening is the anxiety of being recalled, it is beyond paternalistic/maternalistic to advise women that it is preferable to let them die an avoidable death than to be made anxious by a recall!!?

16. Finally, it has been suggested that only high-risk women aged 40 to 49 years should participate in screening. Although high-risk women are just that—at higher than the average risk—there are no RCT data to prove that screening only high-risk women will save any lives. None of the RCTs stratified patients by risk, so given that RCTs are the only way to prove a benefit, there is no proof that screening only high-risk women will save any lives. In addition, high-risk women account for approximately 25% of all women diagnosed with breast cancer each year, so screening only high-risk women will exclude 75% of the women who develop breast cancer. At the present time it appears that all women are at risk and should be encouraged to participate in screening. According to the CISNET models (there has been no RCT comparing screening intervals) annual screening is estimated to provide

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Recent History: Likely Reasons Why the US Preventive Services Task Force, Once Again, Supports Screening for Women Aged 40 to 74 Years (continued from page 25)

the greatest reduction in deaths. All women aged 40 to 74 years should be encouraged to be screened every year. Highrisk women may benefit (no proof) from additional screening with magnetic resonance imaging or perhaps ultrasonography between annual mammograms.

Problems With the Planned USPSTF 2021 Review

- 17. The Task Force is not going to include the NCI/CISNET computer models to project the potential outcomes of various screening protocols. Without these the Task Force will be guessing in their predictions. It would appear that CISNET modeling has been dropped because the models all showed that the most lives are saved by annual screening beginning at the age of 40 years.
- 18. Although a reduction in advanced-stage disease is a potentially useful surrogate end point, it is critical to remember that lives are lost among women diagnosed at all stages of breast cancer. It has been shown that reducing the size of cancers within stages is also a major benefit from screening that reduces deaths. 79-81
- 19. A critical fact that has been repeatedly overlooked by analyses that denigrate the value of screening and (falsely) suggest massive overdiagnosis is the false claim that the background incidence of breast cancer has not increased over time. This has been the fundamental piece of misinformation that has been used to promote the false concept of massive overdiagnosis and the false claim that there has not been a reduction in advanced cancers. The data clearly show that the baseline incidence of breast cancer has increased steadily by 1% to 1.3% per year dating back to at least 1940,82 long before there was any screening, which did not start until the mid-1980s. If the correct increasing baseline is used, not only is there no apparent overdiagnosis of invasive cancers, but it also appears that there has been a major reduction in the incidence of invasive cancers.83 Although unproven, this is likely due to the removal of ductal carcinoma in situ (DCIS), lesions almost exclusively detected by mammography, precluding the future development of invasive cancers. By using the correct baseline incidence and extrapolation it is also clear that there has been a major reduction in the rate of advanced cancers.

Conclusions

- 1. The USPSTF should include experts in breast cancer screening.
- The USPSTF should provide women with the facts based on science and evidence.
- 3. The USPSTF guidelines should not be based on the biased, subjective opinions of the panel members.

Additional Information on Overdiagnosis

I had not included in the above summary to the USPSTF the following information, which addresses other efforts to falsely claim massive overdiagnosis from screening.

At the time of the USPSTF review, the most egregious effort to claim massive overdiagnosis was highlighted in point 19. My comments above related to the more recent false claims of massive overdiagnosis reached by ignoring the fact that the incidence of breast cancer had been increasing steadily since 1940 and the arguments that were based on the false claim that the baseline incidence was very slowly increasing or even flat, when it had been increasing by 1% to 2% for decades. This misinformation led to the false claim that there were tens of thousands of breast cancers that would have disappeared on their own had screening not begun in the mid-1980s.

Previously, there had been numerous efforts to determine whether mammography screening resulted in overdiagnosis by supposedly detecting cancers that would disappear if left alone. Most of these earlier arguments were based on data from countries other than the United States. A number of these tried to correlate breast cancers in countries where screening was not universal. In some parts of a country, some women had participated in screening while it was not offered in other parts. The claim was made that more cancers were diagnosed among the screened women than among women in the unscreened regions. An analysis of a number of these studies uncovered the fact that they did not account for lead time. Screening finds some cancers many years before they become clinically evident. To account for this, analyses need to follow the populations over a long period of time. It also appears that some of the analyses did not adjust for differing risks of cancer in the populations. For example, older women have a higher risk of breast cancer. Did the groups being compared have the same risk of developing breast cancer? Some also included DCIS in their numbers, and everyone agrees that there are unanswered questions about the variations,



natural history, and management of these lesions. Puliti et al provided a detailed analysis of these observational studies.⁸⁴ The best of these types of analyses suggested a 1% to at most 10% likelihood of overdiagnosis.

Another method used to try to determine the amount of overdiagnosis was to compare the total number of cancers in the screening arm with the total in the control arm in the RCTs of screening. In theory, since these were randomly assigned women, the same number of cancers would have developed in the screening arm as among the women whose cancers became clinically evident in the control arm. These analyses are compromised by the fact that most of the RCTs went ahead and screened women in the control arm at the end of the trial. Another factor is the need to follow up the women for a long enough period of time to take into account the fact that cancers are detected sooner by screening compared to when the cancers would have been clinically evident. The Malmö trial did not screen older women (aged 55-69 years) in the control group, but they did include women diagnosed with DCIS. Fifteen years after the end of the trial there were 10% more cancers among the study women compared to the unscreened controls. This included women with DCIS. This dropped to 7% when women with DCIS were not included.85

To reiterate, these studies were not conducted in the United States. The claims of massive overdiagnosis (30% or more) due to screening in the United States have been based not on actual data but rather on the authors' scientifically questionable claims. In a study published in 2012, the authors actually stated that their analysis was based on their best guess as to what the incidence of breast cancer would have been had mammography screening not begun in the mid-1980s⁸⁶ and concluded, in 2008 alone, that more than 70,000 breast cancers would have never become clinically evident and inferred that they would have disappeared on their own if left undetected by mammography. In a later publication, the authors, using the same method of guessing, arrived at a claim of even greater overdiagnosis.87 In two other papers the claim was made that since the rate of advanced cancers had not decreased by very much over time while the rate of small cancers had increased dramatically with screening, the overall increase in incidence, particularly of early breast cancers, must be due to mammography finding harmless (overdiagnosed) cancers that would have disappeared had they been left undetected.^{88,89} What they ignored is the fact that the baseline incidence of breast cancer has continued to increase steadily since 1940.⁴¹ With the onset of screening, a much larger percentage of the cancers are now early stage, while the rate of

advanced cancers has not increased. This means that the relative rate of advanced cancers has declined by 37%.⁹¹

There are certainly women who die from causes other than their breast cancer, but if we evaluate invasive breast cancers, these are real cancers with lethal potential. The arguments against screening based on massive overdiagnosis have been greatly exaggerated.

References Provided to the USPSTF

- 1. www.lumen.luc.edu/lumen/meded/hmps/pocketgd1.pdf "The U.S. Preventive Services Task Force (USPSTF) recommends screening mammography, with or without clinical breast examination (CBE), every 1-2 years for women aged 40 and older. Rating: B Recommendation."
- 2. US Preventive Services Task Force. Screening for breast cancer: U.S. Preventive Services Task Force recommendation statement. Ann Intern Med. 2009 Nov 17;151(10):716-26, W-236. Doi: 10.7326/0003-4819-151-10-200911170-00008. Erratum in: Ann Intern Med. 2010 May 18;152(10):688. Ann Intern Med. 2010 Feb 2;152(3):199-200.
- 3. Siu AL; U.S. Preventive Services Task Force. Screening for Breast Cancer: U.S. Preventive Services Task Force Recommendation Statement. Ann Intern Med. 2016 Feb 16;164(4):279-96. Doi: 10.7326/M15-2886. Epub 2016 Jan 12. PubMed PMID: 26757170
- 4. Siu AL; U.S. Preventive Services Task Force. Screening for Breast Cancer: U.S. Preventive Services Task Force Recommendation Statement. Ann Intern Med. 2016 Feb 16;164(4):279-96. Doi: 10.7326/M15-2886. Epub 2016 Jan 12. PubMed PMID: 26757170
- 5. Smith RA, Duffy SW, Gabe R, Tabár L, Yen AM, Chen TH. The randomized trials of breast cancer screening: what have we learned? Radiol Clin North Am 2004;42(5):793-806
- 6. Kopans DB, Halpern E, Hulka CA. Statistical Power in Breast Cancer Screening Trials and Mortality Reduction Among Women 40-49 with Particular Emphasis on The National Breast Screening Study of Canada. Cancer 1994;74:1196-1203
- 7. Kopans DB. Screening for breast cancer and mortality reduction among women 40-49 years of age. Cancer. 1994 Jul 1;74(1 Suppl):311-22.
- 8. Hendrick RE, Smith RA, Rutledge JH, Smart CR. Benefit of screening mammography in women ages 40-49: a new meta- analysis of randomized controlled trials. Journal of the National Cancer Institute Monograph 22: 87-92, 1997.
- 9. Kopans DB. Major failings of trial procedures and quality of screening fatally compromise the results of the Canadian National Breast Screening Studies. J Med Screen. 2021 Jan 17:969141320986186. Doi: 10.1177/0969141320986186. Epub ahead of print. PMID: 33459171.
- 10. Kopans DB. The Canadian National Breast Screening Studies are compromised and their results are unreliable. They should not factor into decisions about breast cancer screening. Breast Cancer Res Treat. 2017 Aug:165(1):9-15.
- 11. Heywang-Köbrunner SH, Schreer I, Hacker A, Noftz MR, Katalinic A. Conclusions for mammography screening after 25-year follow-up of the Canadian National Breast Cancer Screening Study (CNBSS). Eur Radiol. 2016 Feb;26(2):342-50.
- 20. Boyd NF, Jong RA, Yaffe MJ, Tritchler D, Lockwood G, Zylak CJ. A Critical Apraisal of the Canadian National Breast Cancer Screening Study. Radiology 1993;189:661-663.
- 21. Kopans DB, Feig SA. The Canadian National Breast Screening Study: A Critical Review. AJR 1993;161:755-760.
- 22. Merz B. Author of Canadian Breast Cancer Study retracts warnings. J Natl Cancer Inst. 1992 Jun 3;84(11):832-4. PubMed PMID: 1593648
- 23. Kopans DB. The Canadian Screening Program: A Different Perspective. AJR 1990 155:748-749
- 24. Kopans DB. The Canadian Screening Program: A Different Perspective. AJR 1990;155:748-749.
- 25. Baines CJ, Miller AB, Kopans DB, Moskowitz M, Sanders DE, Sickles EA, To T, Wall C. Canadian National Breast Screening Study: assessment of technical quality by external review. AJR Am J Roentgenol. 1990 Oct;155(4):743-7.

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Recent History: Likely Reasons Why the US Preventive Services Task Force, Once Again, Supports Screening for Women Aged 40 to 74 Years (continued from page 27)

- 26. Bailar JC, MacMahon B, Randomization in the Canadian National Breast Screening Study: A Review for Evidence of Subversion. Can Med Assoc J 1997;156:193-199.
- 27. Kopans DB. NBSS: Opportunity to Compromise the Process. Letter to the Editor. Can Med Assoc J 1997;157:247.
- 28. Kopans DB, Feig SA. The Canadian National Breast Screening Study: A Critical Review. AJR 1993;161:755-760
- 29. Tarone RE. The Excess of Patients with Advanced Breast Cancers in Young Women Screened with Mammography in the Canadian National Breast Screening Study. Cancer 1995;75:997-1003
- 30. Miller AB, Wall C, Baines CJ, Sun P, To T, Narod SA. Twenty five year follow-up for breast cancer incidence and mortality of the Canadian National Breast Screening Study: rder ized screening trial. BMJ. 2014 Feb 11;348:g366. Doi: 10.1136/bmj.g366. PubMed PMID: 24519768; PubMed Central PMCID: PMC3921437. See Table 1.
- 31. Kopans DB. Major failings of trial procedures and quality of screening fatally compromise the results of the Canadian National Breast Screening Studies. J Med Screen. 2021 Jan 17:969141320986186. Doi: 10.1177/0969141320986186. Epub ahead of print. PMID: 33459171. 32. Tabar L, Vitak B, Tony HH, Yen MF, Duffy SW, Smith RA. Beyond
- randomized controlled trials: organized mammographic screening substantially reduces breast carcinoma mortality. Cancer 2001;91:1724-31
- 33. Kopans DB. Beyond Randomized, Controlled Trials: Organized Mammographic Screening Substantially Reduces Breast Cancer Mortality. Cancer 2002;94: 580-581
- 34. Duffy SW, Tabar L, Chen H, Holmqvist M, Yen M, Abdsalah S, Epstein B, Frodis Ewa, Ljungberg E, Hedborg-Melander C, Sundbom A, Tholin M, Wiege M, Akerlund A, Wu H, Tung T, Chiu Y, Chiu Chen, Huang C, Smith RA, Rosen M, Stenbeck M, Holmberg L. The Impact of Organized Mammography Service Screening on Breast Carcinoma Mortality in Seven Swedish Counties. Cancer 2002;95:458-469.
- 35. Otto SJ, Fracheboud J, Looman CWN, Broeders MJM, Boer R, Hendriks JNHCL, Verbeek ALM, de Koning HJ, and the National Evaluation Team for Breast Cancer Screening* Initiation of population-based mammography screening in Dutch municipalities and effect on breast-cancer mortality: a systematic review Lancet 2003;361:411-417.
- 36. Swedish Organised Service Screening Evaluation Group. Reduction in breast cancer mortality from organized service screening with mammography: 1. Further confirmation with extended data. Cancer Epidemiol Biomarkers Prev. 2006;15:45-51
- 37. Coldman A, Phillips N, Warren L, Kan L. Breast cancer mortality afterscreening mammography in British Columbia women. Int J Cancer. 2007 Mar 1;120(5):1076-80.
- 38. Jonsson H, Bordás P, Wallin H, Nyström L, Lenner P. Service screening withmammography in Northern Sweden: effects on breast cancer mortality an update. J Med Screen. 2007;14(2):87-93.
- 39. Paap E, Holland R, den Heeten GJ, et al. A remarkable reduction of breast cancer deaths in screened versus unscreened women: a case-referent study. Cancer Causes Control 2010; 21: 1569-1573.
- 40. Otto SJ, Fracheboud J, Verbeek ALM, Boer R, Reijerink-Verheij JCIY, Otten JDM, Broeders MJM, de Koning HJ, and for the National Evaluation Team for Breast Cancer Screening. Mammography Screening and Risk of Breast Cancer Death: A Population-Based Case-Control Study. Cancer Epidemiol Biomarkers Prev. Published OnlineFirst December 6, 2011; doi: 10.1158/1055-9965.EPI-11-0476
- 41. van Schoor G, Moss SM, Otten JD, Donders R, Paap E, den Heeten GJ, Holland R, Broeders MJ, Verbeek AL. Increasingly strong reduction in breast cancer mortality due to screening. Br J Cancer. 2011 Feb 22. Epub ahead of print42. Mandelblatt JS, Cronin KA, Bailey S, et.al. Effects of mammography screening under different screening schedules: model estimates of potential benefits and harms. Annals of Internal Medicine, 2009; 151: 738-747; see also http://cisnet.cancer.gov, last accessed 16 April 2011.
- 43. Hellquist BN, Duffy SW, Abdsaleh S, Björneld L, Bordás P, Tabár L, Viták B, Zackrisson S, Nyström L, Jonsson H. Effectiveness of population-based service screening with mammography for women ages 40 to 49 years: evaluation of the Swedish Mammography Screening in Young Women (SCRY) cohort. Cancer. 2011 Feb 15;117(4):714-22.

- 44. Broeders M, Moss S, Nyström L, Njor S, Jonsson H, Paap E, Massat N, Duffy S, Lynge E, Paci E; EUROSCREEN Working Group. The impact of mammographic screening on breast cancer mortality in Europe: a review of observational studies. J Med Screen. 2012;19 Suppl 1:14-25. Review 45. Hofvind S, Ursin G, Tretli S, Sebuødegård S, Møller B. Breast cancer mortality in participants of the Norwegian Breast Cancer Screening Program. Cancer. 2013 Sep 1;119(17):3106-12
- 46. Sigurdsson K, Olafsdóttir EJ. Population-based service mammography screening:the Icelandic experience. Breast Cancer (Dove Med Press). 2013 May 9:5:17-25
- 47. Coldman A, Phillips N, Wilson C, Decker K, Chiarelli AM, Brisson J, Zhang B, Payne J, Doyle G, Ahmad R. Pan-canadian study of mammography screening and mortality from breast cancer. J Natl Cancer Inst. 2014 Oct 1;106(11).
 48. Puliti D, Bucchi L, Mancini S, Paci E, Baracco S, Campari C, Canuti D, Cirilli C, Collina N, Conti GM, Di Felice E, Falcini F, Michiara M, Negri R, Ravaioli A, Sassoli De' Bianchi P, Serafini M, Zorzi M, Caldarella A, Cataliotti L, Zappa M; IMPACT COHORT Working Group.. Advanced breast cancer rates in the epoch of service screening: The 400,000 women cohort study from Italy. Eur J Cancer. 2017 Feb 18;75:109-116.
- 49. Morrell S, Taylor R, rder D, Robson B, Gregory M, Craig K. Mammography service screening and breast cancer mortality in New Zealand: a National Cohort Study 1999-2011. Br J Cancer. 2017 Mar 14;116(6):828-839. Doi: 10.1038/bjc.2017.6. Epub 2017 Feb 9. PMID: 28183141; PMCID: PMC5355933. 50. Duffy SW, Tabár L, Yen AM, Dean PB, Smith RA, Jonsson H, Törnberg S, Chen SL, Chiu SY, Fann JC, Ku MM, Wu WY, Hsu CY, Chen YC, Svane G, Azavedo E, Grundström H, Sundén P, Leifland K, Frodis E, Ramos J, Epstein B, Åkerlund A, Sundbom A, Bordás P, Wallin H, Starck L, Björkgren A, Carlson S, Fredriksson I, Ahlgren J, Öhman D, Holmberg L, Chen TH. Mammography screening reduces rates of advanced and fatal breast cancers: Results in 549,091 women. Cancer. 2020 Jul 1;126(13):2971-2979. Doi: 10.1002/cncr.32859. Epub 2020 May 11. PMID: 32390151; PMCID: PMC7318598.
- 51. Kopans DB, Moore RH, McCarthy KA, Hall DA, Hulka C, Whitman GJ, Slanetz PJ, Halpern EF. Biasing the Interpretation of Mammography Screening Data By Age Grouping: Nothing Changes Abruptly at Age 50. The Breast Journal 1998;4:139-145.
- 52. Oeffinger KC, Fontham ET, Etzioni R, Herzig A, Michaelson JS, Shih YC, Walter LC, Church TR, Flowers CR, LaMonte SJ, Wolf AM, DeSantis C, Lortet-Tieulent J, Andrews K, Manassaram-Baptiste D, Saslow D, Smith RA, Brawley OW, Wender R. Breast Cancer Screening for Women at Average Risk: 2015 Guideline Update From the American Cancer Society. JAMA. 2015 Oct 20;314(15):1599-614.
- 53. Mettler FA, Upton AC, Kelsey CA, Rosenberg RD, Linver MN. Benefits versus Risks from Mammography: A Critical Assessment. Cancer 1996;77:903-909.
- 54. Yaffe MJ, Mainprize JG. Risk of radiation-induced breast cancer from mammographic screening. Radiology. 2011 Jan;258(1):98-105. Doi: 10.1148/radiol.10100655. Epub 2010 Nov 16. Erratum in: Radiology. 2012 Jul;264(1):306.
- 55. Mandelblatt JS, Cronin KA, Bailey S, Berry DA, de Koning HJ, Draisma G, Huang H, Lee SJ, Munsell M, Plevritis SK, Ravdin P, Schechter CB, Sigal B, Stoto MA, Stout NK, van Ravesteyn NT, Venier J, Zelen M, Feuer EJ; Breast Cancer Working Group of the Cancer Intervention and Surveillance Modeling Network. Effects of mammography screening under different screening schedules: model estimates of potential benefits and harms. Ann Intern Med. 2009 Nov 17;151(10):738-47.
- 56. Anderson WF, Jatoi I, Devesa SS. Assessing the impact of screening mammography: Breast cancer incidence and mortality rates in Connecticut (1943-2002). Breast Cancer Res Treat. 2006 Oct;99(3):333-40. 57. Tabár L, Yen AM, Wu WY, Chen SL, Chiu SY, Fann JC, Ku MM, Smith RA, Duffy SW, Chen TH. Insights from the breast cancer screening trials: how screening affects the natural history of breast cancer and implications for evaluating service screening programs. Breast J. 2015 Jan-Feb;21(1):13-20 58. Tabár L, Yen AM, Wu WY, Chen SL, Chiu SY, Fann JC, Ku MM, Smith RA, Duffy SW, Chen TH. Insights from the breast cancer screening trials: how screening affects the natural history of breast cancer and implications for evaluating service screening programs. Breast J. 2015 Jan-Feb;21(1):13-20



- 59. Yen AM, Duffy SW, Chen TH, Chen LS, Chiu SY, Fann JC, Wu WY, Su CW, Smith RA, Tabár L. Long-term incidence of breast cancer by trial arm in one county of the Swedish Two-County Trial of mammographic screening. Cancer. 2012 Dec 1;118(23):5728-32. Doi: 10.1002/cncr.27580. Epub 2012 May 17 60. Foca F, Mancini S, Bucchi L, Puliti D, Zappa M, Naldoni C, Falcini F, Gambino ML, Piffer S, Sanoja Gonzalez ME, Stracci F, Zorzi M, Paci E; IMPACT Working Group. Decreasing incidence of late-stage breast cancer after the introduction of organized mammography screening in Italy. Cancer. 2013 Jun 1;119(11):2022-8. Doi: 10.1002/cncr.28014. Epub 2013 Mar 15 61. Tabár L, Faberberg G, Day NE, Holmberg L. What is the optimum interval
- between mammographic screening examinations? An analysis based on the latest results of the Swedish two-county breast cancer screening trial. Br J Cancer. 1987 May;55(5):547-51
- 62 Swedish Organised Service Screening Evaluation Group. Effect of mammographic service screening on stage at presentation of breast cancers in Sweden. Cancer. 2007 Jun 1;109(11):2205-12
- 63. Oberaigner W, Geiger-Gritsch S, Edlinger M, Daniaux M, Knapp R, Hubalek M, Siebert U, Marth C, Buchberger W. Reduction in advanced breast cancer after introduction of a mammography screening program in Tyrol/Austria. Breast. 2017 Apr 15;33:178-182.
- 64. Puliti D, Bucchi L, Mancini S, Paci E, Baracco S, Campari C, Canuti D, Cirilli C, Collina N, Conti GM, Di Felice E, Falcini F, Michiara M, Negri R, Ravaioli A, Sassoli De' Bianchi P, Serafini M, Zorzi M, Caldarella A, Cataliotti L, Zappa M; IMPACT COHORT Working Group.. Advanced breast cancer rates in the epoch of service screening: The 400,000 women cohort study from Italy. Eur J Cancer. 2017 Feb 18;75:109-116
- 65. Malmgren JA, Parikh J, Atwood MK, Kaplan HG. Impact of mammography detection on the course of breast cancer in women aged 40-49 years. Radiology. 2012 Mar;262(3):797-806. Doi: 10.1148/radiol.11111734. PubMed PMID: 22357883
- 66. Smith RA, Duffy SW, Gabe R, Tabár L, Yen AM, Chen TH. The randomized trials of breast cancer screening: what have we learned? Radiol Clin North Am 2004;42(5):793–806
- 67. Fracheboud J, Otto SJ, van Dijck JA, Broeders MJ, Verbeek AL, de Koning HJ; National Evaluation Team for Breast cancer screening (NETB). Decreased rates of advanced breast cancer due to mammography screening in The Netherlands. Br J Cancer. 2004 Aug 31;91(5):861-7.
- Helvie MA, Chang JT, Hendrick RE, Banerjee M. Reduction in late-stage breast cancer incidence in the mammography era: Implications for overdiagnosis of invasive cancer. Cancer. 2014 Sep 1;120(17):2649-56.
- 68. Webb ML, Cady B, Michaelson JS, Bush DM, Calvillo KZ, Kopans DB, Smith BL. A failure analysis of invasive breast cancer: most deaths from disease occur in women not regularly screened. Cancer. 2014 Sep 15;120(18):2839-46.
- 69. Spencer DB, Potter JE, Chung MA, Fulton J, Hebert W, Cady B. Mammographic screening and disease presentation of breast cancer patients who die of disease. Breast J. 2004 Jul-Aug;10(4):298-303.
- 70. Kopans DB, Halpern E. Re: All-cause mortality in randomized trials of cancer screening. J Natl Cancer Inst. 2002 Jun 5;94(11):863;
- 71. Tabar L, Duffy SW, Yen MF, Warwick J, Vitak B, Chen HH, Smith RA. All-cause mortality among breast cancer patients in a screening trial: support for breast cancer mortality as an end point. J Med Screen. 2002;9(4):159-62. 72. Hendrick RE, Helvie MA. USPSTF Guidelines on Screening Mammography Recommendations: Science Ignored. Am. J. Roentgenology 2011; 196: W112 –
- 73. Arleo EK, Hendrick RE, Helvie MA, Sickles EA. Comparison of recommendations for screening mammography using CISNET models. Cancer. 2017 Oct 1;123(19):3673-3680.

- 74. Arleo EK, Monticciolo DL, Monsees B, McGinty G, Sickles EA. Persistent untreated screening-detected breast cancer: an argument against delaying screening or increasing the interval between screenings. J Am Coll Radiol 2017; 14:863-867.
- 75. Tosteson AN, Fryback DG, Hammond CS, Hanna LG, Grove MR, Brown M, Wang Q, Lindfors K, Pisano ED. Consequences of false-positive screening mammograms. JAMA Intern Med. 2014 Jun;174(6):954-61.
- 76. Neal CH, Rahman WT, Joe Al, Noroozian M, Pinsky RW, Helvie MA. Harms of Restrictive Risk-Based Mammographic Breast Cancer Screening. AJR Am J Roentgenol. 2018 Jan;210(1):228-234.
- 77. Price ER, Keedy AW, Gidwaney R, Sickles EA, Joe BN. The Potential Impact of Risk-Based Screening Mammography in Women 40-49 Years Old. AJR Am J Roentgenol. 2015 Jul 23:1-5.
- 78. Rosen PP, Groshen S, Saigo PE, Kinne DW, Hellman S. Pathological prognostic factors in stage I (T1N0M0) and stage II (T1N1M0) breast carcinoma: a study of 644 patients with median follow-up of 18 years. J Clin Oncol. 1989 Sep;7(9):1239-51.
- 79. Chu KC, Connor RJ. Analysis of the temporal patterns of benefits in the Health Insurance Plan of Greater New York trial by stage and age. Am J Epidemiol. 1991;133:1039-49.
- 80. Elkin EB, Hudis C, Begg CB, Schrag D. The effect of changes in tumor size on breast carcinoma survival in the U.S.: 1975-1999. Cancer. 2005 Sep 15;104(6):1149-57
- 81. Saadatmand S, Bretveld R, Siesling S, Tilanus-Linthorst MM. Influence of tumour stage at breast cancer detection on survival in modern times: population based study in 173,797 patients. BMJ. 2015 Oct 6;351:h4901. Doi:10.1136/bmj. h4901. PubMed PMID: 26442924
- 82 Anderson WF, Jatoi I, Devesa SS. Assessing the impact of screening mammography: Breast cancer incidence and mortality rates in Connecticut (1943-2002). Breast Cancer Res Treat. 2006 Oct;99(3):333-40.
- 83. Kopans DB. Arguments Against Mammography Screening Continue to be Based on Faulty Science. The Oncologist 2014;19:107–112

Added References

- 84. Puliti D, Duffy SW, Miccinesi G, de Koning H, Lynge E, Zappa M, Paci E; EUROSCREEN Working Group. Overdiagnosis in mammographic screening for breast cancer in Europe: a literature review. J Med Screen. 2012;19 Suppl 1:42-56. PubMed PMID: 22972810
- 85. Zackrisson S, Andersson I, Janzon L, Manjer J, Garne JP. Rate of over-diagnosis of breast cancer 15 years after end of Malmo mammographic screening trial: follow-up study. BMJ. 2006;332:689-92.
- 86. Bleyer A, Welch HG. Effect of three decades of screening mammography on breast-cancer incidence. N Engl J Med. 2012 Nov 22;367(21):1998-2005 87. Welch HG, Prorok PC, O'Malley AJ, Kramer BS. Breast-Cancer Tumor Size, Overdiagnosis, and Mammography Screening Effectiveness. N Engl J Med. 2016 Oct 13;375(15):1438-1447.
- 88. Welch, H. G., Gorski, D. H., & Albertsen, P. C. Trends in Metastatic Breast and Prostate Cancer Lessons in Cancer Dynamics. The New England Journal of Medicine 2015, 373(18), 1685–1687
- 89. Welch HG, Kramer BS, Black WC. Epidemiologic Signatures in Cancer. N Engl J Med. 2019 Oct 3;381(14):1378-1386.
- 90. Helvie MA, Chang JT, Hendrick RE, Banerjee M. Reduction in late-stage breast cancer incidence in the mammography era: Implications for overdiagnosis of invasive cancer. Cancer. 2014 Sep 1;120(17):2649-56. doi: 10.1002/cncr.28784. Epub 2014 May 19. Erratum in: Cancer. 2014 Nov 1;120(21):3426.

Breast Cancer Mortality Rates and Distant Disease: Worrying Trends

By Debra L. Monticciolo, MD, FACR, FSBI



Debra L. Monticciolo, MD, FACR, FSBI

Breast cancer screening has had a major impact on breast cancer mortality in the United States and worldwide. A 40% or more reduction in breast cancer deaths has been achieved or could be realized with regular mammographic screening. In addition to decreasing breast cancer deaths, mammography has other benefits for screened women: less chemotherapy, better surgical options, more effective treatments, and the discovery and removal of high-risk lesions, which can decrease subsequent invasive events.

Interestingly (and unfortunately), both the United States Preventive Services Task Force (USPSTF) and the American Cancer Society do not consider these additional benefits in their screening guidelines for women. Both organizations make their recommendations based on their own weighing of benefits and risks (the latter of which they term harms). The only weight in the benefits column is mortality reduction; the other benefits are ignored, in spite of the fact that they are well studied and easily quantified. The risks of screening are, therefore, overweighted in their calculations. We have shown that the risks of screening in the United States are manageable³; in fact, the risk of recall is low (6.5% to 9.6%) across multiple screening scenarios and is lowest (6.5%) with annual screening of women aged 40 to 79 years.³ The risk of benign biopsy results is likewise very low with mammography screening in the United States (range, 0.88% to 1.32%), again lowest with annual screening starting at age 40 years (0.88%).3

These facts should lead to a celebration of mammography screening. Data from the US Surveillance, Epidemiology, and End Results Program show that before initiation of widespread mammographic screening in the United States in the late 1980s, the breast cancer death rate was flat (that is, both breast cancer incidence and deaths were rising, yielding a flat death rate). The breast cancer death rate first started to fall in 1990; by 2020, it had fallen by approximately 42%. This welcomed outcome has been attributed to a combination of mammography screening and improved treatments.

In our recent *Journal of Breast Imaging (JBI)* publication titled "Recent Trends in Breast Cancer Mortality Rates for US Women by Age and Race/Ethnicity," my colleague, R. Edward Hendrick, PhD, and I showed that National Center for Health Statistics data still demonstrate declines in breast cancer death since 1990, which the medical community points to as success. However, our deeper look into the data shows worrying trends.

We report that female breast cancer mortality rates have stopped declining in women older than 74 years, a new finding.⁶ We first noted the cessation of decline in breast cancer mortality rates for women younger than 40 years in a previous publication⁷; this finding was reconfirmed in our recent report.⁶ We note that "it is concerning that women in age groups outside of the USPSTF-recommended screening range of 40-74 years are now experiencing breast cancer mortality rates that are no longer declining after years of improvement."⁶

The cessation of decline in mortality rates for younger as well as older women is driven primarily by unfavorable changes in mortality rates for White women, Hispanic women aged 20 to 39 years, and Asian women aged 75 years and older.⁶ We note in particular the crisis for Asian women; Asian women older than 74 years are the only racial or ethnic subgroup in which mortality rates steadily and significantly increased from 1990 to 2022 and are the only subgroup for whom breast cancer mortality rates have stopped declining for women aged 40 to 74 years.⁶

The new finding of the cessation of mortality decline for women over age 74 years is likely related to the significant increase in late diagnoses in this age group, which we reported late in 2024.8 In that report, we showed that stage IV breast cancer incidence rates at presentation (ie, stage IV at diagnosis) increased significantly in US women overall; in the age groups 20 to 39 years, 40 to 74 years, and 75 years or older; and in Asian, Black, Hispanic, and Native American women.8

"End the Confusion": The Journey Behind the Song Calling Women to Screen for Breast Cancer

By Dana Ataya, MD



Dana Ataya, MD

As a breast radiologist, a songwriter, and the lead singer of Moffitt Cancer Center's house band The ReMissions, I've seen firsthand how music can connect and inspire. After witnessing too many women present with advanced breast cancer and hearing them describe how the conflicting breast cancer screening guidelines contributed to their confusion around breast cancer screening, I knew I wanted to write a song to address this gap. What emerged was "End the Confusion," a breast cancer screening anthem inspired by the SBI's End the Confusion campaign. It's a song about how screening mammography beginning at age 40 years—and continuing as long as we're in good health—saves the most lives.

Writing the Song

As a songwriter, I've found that inspiration often comes in fragments. I call them *song seeds*. Whenever one strikes, I grab my phone, record it, and tuck it away for when the moment feels right. I had wanted to write a song about breast cancer screening for several years. I wanted it to be catchy, empowering, and clear (but not too cheesy), a way to cut through the noise and confusion surrounding when and how often women should screen for breast cancer. I had a melody in my head, but the draft lyrics didn't feel right. The song seed sat there for months, waiting for the right moment.

That moment arrived at the SBI Symposium Planning Committee meeting in 2024. Peter Eby, MD, shared the slogan for the 40th anniversary SBI symposium: "40 Then, 40 Now." It was simple, powerful, and direct—SBI's long-standing message on the importance of annual screening beginning at age 40 years. That phrase, paired with the SBI's End the Confusion campaign, brought the song to life. On my flight home from the SBI Symposium Planning Committee, I pulled up that old melody on my phone and started writing the lyrics of the song. The chorus came first:

40 Then, 40 now, yearly then, yearly now, 40 then, 40 now, end the confusion now.

But I wanted the song to go further. I wanted it to connect with women and remind them of all the reasons they screen—for themselves and for the people they love.

I screen for my daughter, I screen for my father, I screen for my son, I screen for my brother, I screen for my sister, I screen for my mother...

Screen for you, 'cause you make your world go round.

As a mother, a daughter, a sister, I knew screening wasn't simply about my own health; by taking care of myself, I could be there for my loved ones who rely on me. As I wrote the song, I thought of every woman who's ever hesitated, every woman who's ever wondered, "Do I really need a mammogram?" I wanted "End the Confusion" to break down barriers and answer with a resounding "YES!"

Once the song was written, I quickly recorded and produced an acoustic version for an immediate release on streaming platforms while working on a band version with members of The ReMissions. But I knew the song wouldn't be complete without a music video.

Creating the Music Video

Creating the music video was a labor of love and critically important as a visual extension of the song's message. The opening frames display the statistics we're all too familiar with: one in eight women will be diagnosed with breast cancer, and more than 42,250 women will die of the disease this year. But then the screen shifts: "Screening for breast cancer saves lives. Help us spread the message and end the confusion about breast cancer screening."

When I set out to write the script for this call-to-action music video, my goal was to demystify the screening process for women by walking them through what to expect. With that in mind, the primary storyline follows my personal experience of getting a screening mammogram. The camera captures each step—starting in the waiting room, moving to the moment the mammogram is performed, and ending with mammography interpretation in a reading room.

Alongside this main narrative, I wanted to weave in a second, equally important thread: a reminder that no woman goes through this journey alone. The video shines a spotlight on the dedicated and compassionate community of breast imaging professionals—

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Breast Cancer Mortality Rates and Distant Disease: Worrying Trends (continued from page 30)

Our most recent work published in *JBI* showed that although Black women continue to have declines in breast cancer mortality across all age groups (the only minority cohort to do so), Black women also have the highest breast cancer mortality rates of any subgroup.⁶ Our results show that this finding is age dependent when compared with rates for White women. For example, breast cancer mortality rates are 39% higher in Black women than in White women overall but 104% higher for Black women aged 20 to 39 years, 51% higher for Black women aged 40 to 74 years, and 13% higher for Black women older than 74 years, compared with their White counterparts.⁶

This same age-dependent pattern for Black and White women is seen in rates of advanced-stage disease at diagnosis: 55% higher in Black women overall but 97% higher for those aged 20 to 39 years, 58% higher for those aged 40 to 74 years, and 34% higher for those older than 74 years. As we reported, "this suggests that advanced stage at diagnosis is an important factor determining breast cancer mortality for Black women overall and under age 40 in particular."

Overall, our results show alarming trends that suggest that a review of our current screening and treatment strategies is in order. This is a serious crisis that will affect women of all ages and races/ethnicities; it is especially worrisome for Black women younger than 40 years and Asian women older than 40 years. Our past successes are not being advanced or amplified. In fact, we may be on the verge of losing ground.

We have come a long way since the flat breast cancer death rates of the era before mammography. We must continue to improve breast cancer screening and support breast cancer screening awareness so that our work will continue to be realized in lives saved.

References

- 1. Coldman A, Phillips N, Wilson C, et al. <u>Pan-Canadian study of mammography screening and mortality from breast cancer</u>. *J Natl Cancer Inst.* 2014;106(11):dju261. doi:10.1093/jnci/dju261
- 2. Tabár L, Yen ÁM, Wu WY, et al. <u>Insights from the breast cancer screening trials: how screening affects the natural history of breast cancer and implications for evaluating service screening programs</u>. *Breast J.* 2015;21(1):13-20. doi:10.1111/tbj.12354
- 3. Monticciolo DL, Hendrick RE, Helvie MA. <u>Outcomes of breast cancer screening strategies based on Cancer Intervention and Surveillance Modeling Network estimates</u>. *Radiology*. 2024;310(2):e232658. doi:10.1148/radiol.232658
- 4. Monticciolo DL, Malak SF, Friedewald SM, et al. <u>Breast cancer screening recommendations inclusive of all women at average risk: update from the ACR and Society of Breast Imaging</u>. *J Am Coll Radiol*. 2021;18(9):1280-1288. doi:10.1016/j.jacr.2021.04.021
- 5. SEER cancer statistics review (CSR). National Cancer Institute Surveillance, Epidemiology, and End Results Program. Accessed April 4, 2025. http://seer.cancer.gov/csr/
- 6. Monticciolo DL, Hendrick RE. <u>Recent trends in breast cancer mortality rates for U.S. women by age and race/ethnicity</u>. *J Breast Imaging*. Published online March 6, 2025. doi:10.1093/jbi/wbaf007
- 7. Hendrick RE, Helvie MA, Monticciolo DL. <u>Breast cancer mortality rates</u> have stopped declining in U.S. women younger than 40 years. *Radiology*. 2021;299(1):143-149. doi:10.1148/radiol.2021203476
- 8. Hendrick RE, Monticciolo DL. <u>Surveillance, epidemiology, and end results</u> data show increasing rates of distant-stage breast cancer at presentation in U.S. <u>women</u>. *Radiology*. 2024;313(3):e241397. doi:10.1148/radiol.241397

"End the Confusion": The Journey Behind the Song Calling Women to Screen for Breast Cancer (continued from page 31)

radiologists, mammography technologists, staff members, and volunteers—who show up every day to guide and support women through their breast imaging examinations. To bring this vision to life, I recruited real members of my community, including my breast radiology colleagues, technologists, patients, and support staff, to appear in the video.

Throughout the video, various faculty, staff members, and patients appear holding posters that echo the song's key messages: "Know your risk by age 25," "Average risk? 40 then, 40 now," "High risk? Screen earlier," and "Screen for you." These simple yet powerful statements reinforce the importance of understanding personal risk, screening, and early detection.

By the time the video ends, it becomes evident that this song and its message don't belong to just one person. It's a collective anthem, owned and shared by every woman and the people that support her.

End the Confusion: The Response

Since we released the "End the Confusion" music video in October, the response has blown me away. Women have messaged me saying, "I booked my mammogram because of your song." Many women have reached out to share their stories of early detection. One woman wrote, "The song rocks, and now I'm getting screened." My hope was to use music as a vehicle to empower more women to know their risk and get screened. Hearing that it's working? That's everything.

"End the Confusion" is a song for our SBI community and the women we serve. So turn up the volume, share the song, and let's keep ending the confusion, one mammogram at a time.

You can find the three musical versions of "End The Confusion" (acoustic, full band, dance) by Dr. Dana & The ReMissions on most music platforms.





Advocacy in Canada

By Jean M. Seely, O On, MDCM, FRCPC, FSBI, FCAR; Paula B. Gordon, OC, OBC MD, FRCPC, FSBI







Paula B. Gordon, OC, OBC MD, FRCPC, FSBI

In Canada, advocacy is succeeding without the use of legislation. We have a much bigger problem with our Canadian Task Force on Preventive Health Care than our United States colleagues do with the United States Preventive Services Task Force (USPSTF). When the USPSTF recommended against screening women in their 40s, the US Congress put a moratorium on the USPSTF guidelines. In Canada our politicians have refused to do that. For each of our goals, we must deal with individual provinces and convince policymakers that the Canadian Task Force guidelines should not be followed.



Jennie Dale

A significant driver of our success is Ms. Jennie Dale in Toronto. She cofounded Dense Breasts Canada in 2016 after a cancer that had been missed on her mammogram was detected on breast ultrasonography. Dense Breasts Canada has played a pivotal role in pushing for more than 20 policy changes that prioritize early detection and equitable access to screening for all women.

The first goal was that all women should be notified of their breast density and their BI-RADS assessment categories and be informed of the associated risks. The Task Force considered women with dense breasts as having average risk for breast cancer. In convincing policymakers that the Task Force guidelines were outdated, an obstacle we faced was that the Canadian Cancer Society endorsed the Task Force guidelines! They have since withdrawn their endorsement.

In the early days, Jennie's cofounder, Ms. Michelle DiTomasso in Vancouver, British Columbia, stood in grocery lines, talking to women about their breast density while handing out request-for-information forms for women to send to their provincial screening program to ask about their breast density. The screening program was overwhelmed with requests.

Jennie galvanized women to make appointments with their elected representatives at the provincial and federal levels. We also attended these appointments and presented our requests, which were all backed by evidence.¹⁻⁷ The politicians quickly understood our message and arranged for us to meet with their staff and with the bureaucracy that determines health care at the federal and provincial levels.



Brian Goldman, MD, CFPC, FCPF, MCFP (EM)

An important turning point for us was getting the attention of Dr. Brian Goldman. He has a popular podcast on our national radio. He featured us on a podcast that caught the attention of national media, the public, and politicians.

A few months later, British Columbia became the first province to inform all women of their breast density as part of the screening mammography report

mailed to them. When the health minister made the announcement, a journalist approached him, microphone in hand, and asked if screening breast ultrasonography would be covered by provincial health insurance. Without any input from the screening program or his staff, he answered "Yes."

Starting with British Columbia, the fight for breast density notification continued province by province. We sought out champions—including elected politicians, bureaucrats, and other key decision-makers—while mobilizing women to share their personal stories with politicians, gathering petition signatures, writing opeds, conducting surveys, publishing reports, writing to ombudsmen, and securing media coverage through strategic pitches. In some provinces, health ministers or premiers stepped in and overrode obstructionist screening program managers.

We've made great progress in eight years. Canada has 10 provinces and three territories; 12 of them have organized mammography screening programs, and 11 of these now inform all women of their breast density.

Compared with other countries, we've been fortunate. Advocates in Australia, the United Kingdom, and Ireland began their fight around the same time we did. Although they've raised significant awareness, they have yet to see successful implementation of their desired goals.

Following the success of breast density notification, Dense Breasts Canada pivoted to advocating for lowering the screening age to 40 years. Even though the USPSTF has lowered the screening age to 40 years, our Task Force steadfastly refuses to do so.

Multiple colleagues from across Canada and the United States volunteered their time to expose the flaws in the Task Force



methods, including their reliance on the Canadian National Breast Screening Studies. 8-10 These colleagues include Dr. Shiela Appavoo, Dr. Martin Yaffe, Dr. Dan Kopans, and Dr. Peter Eby.







iela Appavoo, MD, FRCPC Martin Yaffe, PhD

Dan Kopans, MD, FACR, FSBI





Peter Eby, MD, FSBI

Anna Wilkinson, MD, CFPC

Dr. Anna Wilkinson, a general practitioner and oncologist, joined forces with Dr. Seely and published several important works with Statistics Canada based on Canadian data. They showed that compared with women in provinces that start screening at age 50 years, those who live in provinces that start screening at age 40 years have significantly lower proportions of advanced-stage breast cancer (stage II and higher) $^{\rm 11}$ and significantly increased 10-year net survival.¹² They showed that the peak age of diagnosis for White women was 63 years, compared with ages 52 to 60 years for non-White women, and that Black women were more likely to be diagnosed with advanced breast cancers and 40% more likely to die of their cancers than White women. They found rising incidence of breast cancer in younger women between 1984 and 2019, with the highest annual percentage changes observed among women aged 20 to 29 years and those aged 30 to 39 years.¹³ Their analysis of the varying costs of breast cancer treatment depending on breast cancer stage and molecular subtype (Figure 1)14 showed for the first time that screening would not only save lives and

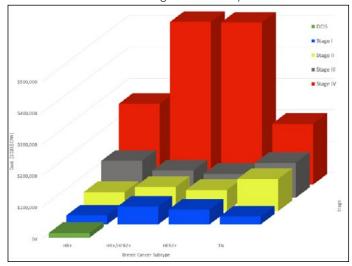


Figure 1. Costs for treating breast cancer in 2023 CAD\$ according to stage and molecular subtype of breast cancer. Reprinted with permission of the author.¹

improve the quality of life for women with cancer but would also produce net savings of about CAD \$400 million each year. 15 This research has had a tremendous impact. For over 30 years, only four jurisdictions screened women starting at age 40 years; now seven do. Two more jurisdictions start screening at age 45 years, and two others plan to gradually lower the starting age for screening to 40 years. Soon no jurisdiction will abide by the Task Force guidelines. Now we just need to convince 60,000 health care professionals who still follow the Task Force guidelines to change their practice.

It's been a bigger challenge reforming the Task Force. Dr. Shiela Appavoo has had a huge impact on this effort. She assembled a coalition of many specialty societies. In addition to members of breast-related specialties, we are joined by specialists in prostate, cervical, and lung cancer; pediatrics; psychiatry; and members of many other specialties in speaking out against the harms of the Task Force methods and guidelines related to their respective fields (Figure 2).



Figure 2. Left to right: Dr. Shiela Appavoo (radiologist), Dr. Martin Yaffe (physicist), Dr. Paul Wheatley Price (thoracic oncologist), Dr. Fred Saad (urologist), and Mr. Peter Julian, MP.

Last month, our federal minister of health ordered a pause on the work of the Task Force, awaiting the outcome of an external expert review of the Task Force to modernize its guideline development. Our group spoke to the panel, and we look forward to seeing their recommendations for reforming the Task Force.

Our current advocacy includes supplemental screening for women with dense breasts. Our recent publication shows the impact of adding supplemental ultrasonography for women with breast density category C or D.16 Unlike women in the United States, most women in Canada undergo screening biennially with digital mammography. Exceptions are women with a first-degree family history and women with category D density, who are offered annual screening in seven jurisdictions. Dr. Seely and colleagues showed that in women with dense breasts, annual screening in these jurisdictions reduced interval cancers by almost 40% compared with biennial screening programs.¹⁷ Some provinces also offer magnetic resonance imaging or contrastenhanced mammography for women with category D density and women with greater than 25% lifetime risk. Magnetic resonance imaging is clearly the most sensitive modality for both screening and preoperative planning¹⁸ but is by far the most expensive. Limited access in Canada does not permit its use for supplemental screening as advised by the ACR.¹⁹

Advocacy in Canada (continued from page 35)

Although some authors²⁰ suggest using various risk assessment models to decide which women should be offered supplemental screening, it is important to remember the greater risk of dense breasts in masking cancers on mammography. Our Canadian research¹⁶ showed that 84% of the cancers missed on mammography and found on screening ultrasonography were in women with category C density and that 62% of these cancers were in women with no personal or family history of breast cancer. Ideally, all women with category C or D density will have access to supplemental screening.

Another of our goals is to enable self-referral for women aged 74 years or greater, who currently must have an examination requisition to undergo screening. Approximately 15.5% of breast cancer deaths occur in women whose cancers arise between ages 75 and 84 years. Most are diagnosed with advanced cancers due to the lack of access to screening. 11

By combining rigorous scientific evidence with effective advocacy and collaboration with other specialties in Canada, we've improved access to screening for women in their 40s and breast density notification. We will continue to pursue screening for women aged 74 years or greater and supplemental screening for women with dense breasts.

References

- 1. Gordon PB, Goldenberg SL. <u>Malignant breast masses detected only by ultrasound. A retrospective review.</u> Cancer. 1995;76(4):626-630. doi:10.1002/1097-0142(19950815)76:4<626::aid-cncr2820760413>3.0.co;2-z
- 2. Berg WA, Blume JD, Cormack JB, et al; ACRIN 6666 Investigators. Combined screening with ultrasound and mammography vs mammography alone in women at elevated risk of breast cancer. JAMA. 2008;299(18):2151-2163. doi:10.1001/jama.299.18.2151
- 3. Geisel J, Raghu M, Hooley R. <u>The role of ultrasound in breast cancer screening: the case for and against ultrasound</u>. Semin Ultrasound CT MR. 2018;39(1):25-34. doi:10.1053/j.sult.2017.09.006
- 4. Weigert JM. <u>The Connecticut experiment; the third installment: 4 years of screening women with dense breasts with bilateral ultrasound</u>. *Breast J.* 2017;23(1):34-39. doi:10.1111/tbj.12678
- 5. Ohuchi N, Suzuki A, Sobue T, et al; J-START investigator groups. Sensitivity and specificity of mammography and adjunctive ultrasonography to screen for breast cancer in the Japan Strategic Anti-cancer Randomized Trial (J-START): a randomised controlled trial. Lancet. 2016;387(10016):341-348. doi:10.1016/S0140-6736(15)00774-6

- 6. Destounis S, Arieno A, Morgan R. <u>New York state breast density mandate:</u> <u>follow-up data with screening sonography</u>. *J Ultrasound Med*. 2017;36(12):2511-2517. doi:10.1002/jum.14294
- 7. Brem RF, Lenihan MJ, Lieberman J, Torrente J. <u>Screening breast ultrasound:</u> past, present, and future. AJR Am J Roentgenol. 2015;204(2):234-240. doi:10.2214/AJR.13.12072
- 8. Seely JM, Eby PR, Gordon PB, Appavoo S, Yaffe MJ. <u>Errors in conduct of the CNBSS trials of breast cancer screening observed by research personnel</u>. *J Breast Imaging*. 2022;4(2):135-143. doi:10.1093/jbi/wbac009
- 9. Yaffe MJ, Seely JM, Gordon PB, Appavoo S, Kopans DB. <u>The randomized trial of mammography screening that was not-a cautionary tale</u>. *J Med Screen*. 2022;29(1):7-11. doi:10.1177/09691413211059461
- 10. Seely JM, Eby PR, Yaffe MJ. <u>The fundamental flaws of the CNBSS trials: a scientific review</u>. *J Breast Imaging*. 2022;4(2):108-119. doi:10.1093/jbi/wbab099
- 11. Wilkinson AN, Billette JM, Ellison LF, Killip MA, Islam N, Seely JM. <u>The impact of organised screening programs on breast cancer stage at diagnosis for Canadian women aged 40-49 and 50-59</u>. *Curr Oncol.* 2022;29(8):5627-5643. doi:10.3390/curroncol29080444
- 12. Wilkinson AN, Ellison LF, Billette JM, Seely JM. <u>Impact of breast cancer screening on 10-year net survival in Canadian women age 40-49 years.</u> *J Clin Oncol.* 2023;41(29):4669-4677. doi:10.1200/JCO.23.00348
- 13. Seely JM, Ellison LF, Billette JM, Zhang SX, Wilkinson AN. <u>Incidence of breast cancer in younger women: a Canadian trend analysis</u>. *Can Assoc Radiol J.* 2024;75(4):847-854. doi:10.1177/08465371241246422
- 14. Wilkinson AN, Seely JM, Rushton M, et al. <u>Capturing the true cost of breast cancer treatment: molecular subtype and stage-specific per-case activity-based costing</u>. *Curr Oncol*. 2023;30(9):7860-7873. doi:10.3390/curroncol30090571
- 15. Wilkinson AN, Mainprize JG, Yaffe MJ, et al. <u>Cost-effectiveness of breast cancer screening using digital mammography in Canada</u>. *JAMA Netw Open*. 2025;8(1):e2452821. doi:10.1001/jamanetworkopen.2024.52821
- 16. Gordon PB, Warren LJ, Seely JM. <u>Cancers detected on supplemental breast ultrasound in women with dense breasts: update from a Canadian centre</u>. Can Assoc Radiol J. Published online February 21, 2025. doi:10.1177/08465371251318578
- 17. Seely JM, Peddle SE, Yang H, et al. <u>Breast density and risk of interval cancers: the effect of annual versus biennial screening mammography policies in Canada</u>. *Can Assoc Radiol J.* 2022;73(1):90-100. doi:10.1177/08465371211027958
- 18. Eisen A, Fletcher GG, Fienberg S, et al. <u>Breast magnetic resonance imaging for preoperative evaluation of breast cancer: a systematic review and meta-analysis</u>. *Can Assoc Radiol J.* 2024;75(1):118-135. doi:10.1177/08465371231184769
- 19. Monticciolo DL, Newell MS, Moy L, Lee CS, Destounis SV. <u>Breast cancer screening for women at higher-than-average risk: updated recommendations from the ACR</u>. *J Am Coll Radiol*. 2023;20(9):902-914. doi:10.1016/j. jacr.2023.04.002
- 20. Zaki-Metias KM, Wang H, Tawil TF, et al. <u>Breast cancer screening in the intermediate-risk population: falling through the cracks?</u> Can Assoc Radiol J. 2024;75(3):593-600. doi:10.1177/08465371241234544
- 21. Oeffinger KC, Fontham ET, Etzioni R, et al; American Cancer Society. 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



A Successful Start to Your Early Career: SBI Early Career Webinar Series

By Katharine Maglione, MD; Neha Modi, MD





Katharine Maglione, MD

Neha Modi, MD

The second Early Career Webinar Series launched in the fall of 2024 to provide high-yield content for new breast imaging radiologists. In case you have not yet viewed the recordings, here is a brief summary of lessons learned.

Lars Grimm, MD, FSBI, and Michelle Lee, MD, FSBI, opened the series with a webinar titled "Identification and Pursuit of High Value Endeavors." This lecture addressed seven key topics: mentorship, getting involved, high-yield professional endeavors, journal editorial opportunities, early career grant opportunities, educational opportunities, and administrative service. Perhaps the most relatable topics were mentorship and getting involved. It is prudent to seek out multiple mentors because mentors may teach different skills, such as writing manuscripts, public speaking, and networking. If you are looking for a mentorship opportunity, SBI has a new mentorship program.

A productive way of getting involved, or "leaning in," is joining an SBI committee. Information on committee missions and eligibility is available <u>online</u> and helps elucidate which committee may foster individual career goals. Equally as important, Drs. Lee and Grimm pointed out how to be a good committee member! Respond to emails, engage in meetings, and volunteer to contribute. Committees are a meaningful way to influence the field of breast imaging.

Early career professional endeavors can include serving as a fellowship director, residency assistant program director, or medical school admissions committee member or becoming involved with a state medical society. Dr. Grimm cautioned radiologists to avoid becoming pulled in many directions. Young attending physicians often say yes to everything. Consider how choices will affect career goals, he advised.

Reviewing journal articles is another high-value endeavor. Reviewing articles submitted for publication keeps you aware of what is in the research pipeline, fosters critical thinking by challenging your own views or knowledge base, and makes you a better writer.

Katerina Dodelzon, MD, FSBI, presented the second webinar, "Communication Skills and Working With a Multidisciplinary Team." As health care shifts toward value-based care, patient-centered communication has been shown to improve outcomes. Patient-centered communication is defined by six aims: emotional support, coordination, cultural competence, engagement, education, and shared decision-making. The impact of communication is even stronger among patients in marginalized racial and ethnic groups. Dr. Dodelzon highlighted studies demonstrating that effective and clear communication reduces prebiopsy anxiety and perceived procedural pain. Studies also show that compassionate communication is associated with reductions in malpractice litigation.

Communication also helps reduces physician burnout. Strong patient rapport decreases depersonalization and increases the sense of accomplishment. Recognizing its importance, the Accreditation Council for Graduate Medical Education includes patient-centered communication as a core competency, and communication is a key element in the breast fellowship curriculum.

Successful communication strategies include establishing a private setting, sitting down, introducing oneself, starting with good news, and providing clear explanations free of jargon. Assessing patient coping ability; using empathetic, nonjudgmental language; and inviting questions foster trust.

Multidisciplinary team communication further improves treatment and survival outcomes. Radiologists contribute by educating patients about screening guidelines and evidence-based protocols, thus increasing our visibility and perceived value. Effective patient-centered communication is essential for quality care, physician well-being, and health care system efficiency.

Bennett Battle, MD, and Randy Miles, MD, FSBI, delivered the third webinar, "Maintaining Breast Community Involvement in Private Practice." Numerous resources are available to

Continued on page 38>



A Successful Start to Your Early Career: SBI Early Career Webinar Series (continued from page 37)

support ongoing engagement in research, education, career growth, and leadership in private and community practice. Dr. Miles encouraged early career breast imaging radiologists to identify opportunities to help achieve individual goals such as research, teaching, community involvement, or leadership. Professional organizations offer learning opportunities through workshops, conferences, and mentorship programs. A variety of professional society groups, including <u>Association of Academic Radiology affinity groups</u>, can be beneficial for individual goals. Additional resources, including the Agency for Healthcare Research and Quality Patient-Centered Outcomes Research and the Joint Commission, support health services research.

Dr. Battle emphasized that in private practice, participation in multidisciplinary case conferences fosters collaboration with other physicians and strengthens ties to the medical community. Staying connected with former co-residents, co-fellows, and attending physicians is valuable for ongoing networking and professional support.

Engaging in local events and supporting organizations also enhances community involvement. Within a practice, contributing to the education of technologists, nurses, and schedulers builds trust and ultimately improves patient care.

Martha Mainiero, MD, FSBI, presented the final webinar, "Burnout Recognition, Prevention, and Management." Burnout is a psychological syndrome that results from chronic workplace stress that has not been appropriately managed. One dimension of burnout, decreased personal accomplishment or the feeling that one's work lacks meaning, is fortunately lower in breast imaging radiologists due to our involvement in patient care. Burnout is bad for both physicians and patients, and burnout among radiologists is rising. In a recent study, 78% of breast imaging radiologists met at least one criterion for burnout.1

Risk factors for burnout are high workload, long hours, trying to work too fast, making a recent error, and being a young parent. The biggest cause for burnout among radiologists is spending too many hours at work. For breast imaging radiologists specifically, the main causes are working too fast and having to balance work and personal life demands.

Burnout solutions should be geared toward organizational improvements such as adequate staffing, reduced night and weekend obligations, and appropriate scheduling and training. Leaders must acknowledge and address burnout. Optimizing efficiency through streamlined schedules, imaging and image display protocols, macros and reporting systems, reduced interruptions, and strategic use of nurse practitioners and physician assistants will help prevent burnout.

Wellness is protective against burnout. Resilience is defined as individual behaviors and attitudes that contribute to well-being. Ways of building resilience include mindfulness and self-reflection, gratitude, goal setting, and positive psychology. It is important to have a resilience reservoir and to fill the reservoir with self-care. Examples of workplace self-care are taking time to eat lunch, talking and laughing with coworkers, making time to meet patients' needs, and seeking regular mentorship. We must recognize burnout to create a culture of wellness, build resilience, and advocate for systemic changes to the culture of radiology and medicine.

If you didn't attend the live webinars, we hope that you will tune in to the recorded webinars for enduring CME content! Have suggestions for future topics? Please do not hesitate to share them with the Early Career Section: https://www.sbi-online.org/early-career-section.

Reference

1. Parikh JR, Sun J, Mainiero MB. <u>Prevalence of burnout in breast imaging radiologists</u>. *J Breast Imaging*. 2020;2(2):112-118. doi:10.1093/jbi/wbz091



Advocacy in 2025: It Takes All of Us

By Amy K. Patel, MD

The year 2025 has already proven to be lively on the legislative and regulatory front. We will continue to keep our finger on the pulse, staying laser-focused and working with both sides of the aisle to advocate for issues such as Medicare reform and breast imaging access that continue to affect our patients and the field of radiology. Our commitment is unwavering because our patients deserve this from us.



Amy K. Patel, MD

Regarding breast imaging legislation, currently much more activity is happening at the state level, including many bills addressing supplemental and diagnostic coverage without copays or deductibles. In the first two weeks of the year, nine states (Connecticut, Florida, Hawaii, Indiana, Missouri, New York, South Carolina, Utah, and Virginia) filed measures seeking to improve breast imaging legislation in their respective states. Florida, Indiana, South Carolina, and Virginia are addressing diagnostic breast imaging without cost sharing. Legislation in Hawaii and New York addresses coverage for patients with high risk and extends coverage to patients with a family history of breast cancer in second-degree (in addition to first-degree) relatives. Missouri and Utah have introduced legislation to repeal previous breast density notification rules mandated by their respective states so that only the US Food and Drug Administration Mammography Quality Standards Act language is required to be included in patient lay letters.

At the time of this writing, previous federal bills such as the Find It Early Act and the Access to Breast Cancer Diagnosis Act, which were introduced in the last legislative session, have not been introduced in this legislative session. However, legislative priorities are rapidly changing, so by the time you read this, the status of these bills could certainly have changed!

Regarding Medicare and ongoing cuts that we continue to face year after year, a fix was not included in the continuing resolution

passed by the House of Representatives. However, members of the Doctors Caucus have received reassurances from House leaders that a fix, ideally more than just a short-term fix, will be included in reconciliation. The details and timing of the reconciliation package are still in flux and very much subject to change.

For those of you attending the ACR 2025 Annual Meeting, ACR Hill Day is Wednesday, May 7, 2025, and we hope to see as many colleagues as possible joining their state chapters to meet with their respective members of Congress. Approximately 94% of members of Congress do not have a health care background, so it is crucial that we persist in our efforts to educate and form relationships with them to ensure they support legislation that benefits the field of radiology and provides access to care for our patients. As daunting a task as this may seem at times, we cannot take our foot off the pedal. We are adding a new element to our Hill Day visits. We are strongly encouraging all who attend to wear a white coat. This unified attire signifies our united front in the house of medicine as we visit the Hill and conveys the message that radiologists are physicians who play an integral role in patient care.

I hope you will join our advocacy efforts. It takes ALL of us, and we simply cannot do it without your support and dedication. Thank you for your commitment to our patients and profession.



ARRS Annual Meeting

April 27-May 1, Marriott Marquis San Diego Marina

American College of Radiology (ACR) Annual Meeting

May 3-7, Washington, DC

ISMRM & ISMRT Annual Meeting & Exhibition

May 10-15, Honolulu, HI

ACR Breast Imaging Boot Camp with Tomosynthesis

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May 14-15, Reston, VA