Mammography rates had stagnated over recent years in the US, and then came COVID-19. The pandemic put life on hold for many people, including their receipt of preventive care such as mammography screenings.

The aftermath of the pandemic on mammography rates isn’t clear yet because, as the American Cancer Society (ACS) notes in its recent 2022 cancer projections report, quantifying “secondary consequences of the pandemic at the population level will take several years because of the lag in dissemination of population-based surveillance data.” Nevertheless, some studies already offer insight into the pandemic’s effect.

As the pandemic emerged, some facilities considered mammography screenings to be elective procedures, so they were delayed or cancelled to help curb the spread of COVID-19.

A study in JAMA Oncology found breast cancer screenings plunged in March through May of 2020 (the sharpest decline of nearly 91% in April) but rebounded almost completely by July 2020. Still, that translated to an estimated absolute deficit in screening for 3.9 million women across the US population, according to the 2021 study, which used administrative claims data and enrollment information covering about 60 million people in Medicare Advantage and commercial health plans.

A study in the Journal of the American College of Radiology in July 2020 that used imaging metadata from January 2019 to May 2020 from 9 community radiology practices across the US to analyze diagnostic imaging work declines reported a disproportionate effect on mammography services.

Breast cancer screenings received through the Centers for Disease Control and Prevention’s National Breast and Cervical Cancer Early Detection Program declined 87% from the previous 5-year average of 19,366 to 2,607 in April 2020. By June 2020, mammography rates recovered but were still 39% below the 5-year average, according to a 2021 study in the journal Preventive Medicine.

Furthermore, a 2022 JAMA study examining ambulatory care utilization in the US between January 2019 and February 2021 found that during the second pandemic wave in January through February 2021, mammography screenings were at 79.2% of expected rates.

Sandra Brennan, MBCh, BAO, director of radiology at the Memorial Sloan Kettering Cancer Center in Westchester, New York, said that at one point, the pandemic even affected breast cancer procedures.

“At our institution, elective surgery was put on hold during the peak of the pandemic, which meant surgery for early-stage breast cancer and high-risk or borderline lesions was postponed,” Brennan said in an email. “Staff were redeployed, and in some areas, stand-alone breast imaging clinics closed and women were advised to postpone routine screening.”

A survey in Preventive Medicine of 77 breast imaging facilities across the US found that nearly all facilities either closed or operated at reduced capacity from March through September in 2020. But since then, Brennan said, “Our screening volume has returned to prepandemic levels.”

More About Prepandemic Mammography Rates

Among US women, breast cancer accounts for about 30% of newly reported cancer cases annually and is the second leading cause of cancer death after lung cancer, according to the most recent report on cancer projections for 2022 from the ACS. Studies of organized mammography programs in Europe and Canada suggest routine screenings, which can detect breast cancer early, may reduce the risk of death by at least 40%, according to studies published in 2014 and 2019.

Yet, mammography rates have stagnated in recent years after hitting a peak nearly 2 decades ago.

“The percentage of women ages 40 years and older who reported having a mammogram within the past two years increased from 29% in 1987 to its peak at 70% in 2000, before gradually declining to 64%-66% between 2000-2018,” according to the ACS Cancer Prevention & Early Detection Facts & Figures 2021-2022. This ACS report also noted that in 2018, 63% of women aged 45 years or older were up-to-date on their breast cancer screenings.

Reasons Vary for Missing Mammograms

Mammography screenings are missed for many reasons that have nothing to do with the COVID-19 pandemic.

The main reason is cost, said Susan Brown, MS, RN, senior director of Health Information and Publications at Susan G. Komen. According to Brown, people with
low incomes may live far from a screening center and be unable to afford transportation or visit during operating hours, assuming they can even miss work for an appointment. Fear also remains a major barrier. And it’s not just dreading a cancer diagnosis—many women have trepidation about the discomfort associated with the mammogram procedure.

“If you find breast cancer on a mammogram before it’s clinically detectable, there are many more options for treatment, and the outcomes are much, much better,” Brown said in an interview. “A few seconds of discomfort from breast compression is a small inconvenience when you balance it with the potential benefit.”

Brown also noted that people worry about exposing their breasts to x-rays. However, “the radiation exposure associated with a routine screening is very small, and the benefit outweighs the risk.”

Cancer epidemiologist Robert Smith, PhD, who leads development of cancer screening guidelines and is senior vice president of cancer screening at the ACS, said women are usually accepting of the need for regular mammograms but then something happens, and they fall off the radar.

“If you look at records, you’ll find that some women have gotten mammograms every year over a 15-year period, and then they just stop,” Smith said in an interview. “They get screening fatigue, or something else is going on in their life.”

What the Guidelines Say
While the organizations that make recommendations about the timing of mammograms agree that mammography screening is important, they have different recommendations about when to begin regular screenings. Although most guidelines are in general agreement about the benefits of screening between the ages of 50 and 74 years, there are some differences in recommendations based on age groups.

The National Comprehensive Cancer Network—an alliance of prominent cancer centers across the US—recommends annual mammography screenings for “average-risk women” aged 40 years or older, noting that preventing death outweighs overdiagnosis. From 2003 until 2015, ACS guidelines followed suit. Now, the ACS recommendations, which were published in JAMA in 2015 and coauthored by Smith, suggest that women at average risk of breast cancer begin annual screenings once they turn 45 and may switch to biennial mammograms at age 55—though it’s noted that women should have the option for annual screenings starting at age 40 years. The US Preventive Services Task Force, on the other hand, recommends biennial screenings between the ages of 50 and 74 years, and that the decision to screen before age 50 years “should be an individual one.”

Those recommendations are just the tip of the iceberg. Several other key organizations—including the American College of Physicians and the International Agency for Research on Cancer—have outlined their own suggestions and rationales. And guidelines vary by clinic, too. For example, Brennan said that her hospital follows guidelines from the American College of Radiology and the Society of Breast Imaging, which both recommend annual mammograms beginning at age 40 years.

“A clinical breast exam should also be performed every year, and women should practice awareness of any breast changes,” she added.

Gaps in Breast Cancer Screening and Outcomes
Health care disparities exacerbate mammography issues. Black women are more likely to die from breast cancer than from other cancers, according to the ACS. While Black women have a 4% lower incidence rate of breast cancer than White women, their mortality rate is 41% higher. Although these disparities are due to a range of factors, including higher risk of aggressive triple-negative breast cancer, they’re also tied to receiving inadequate mammograms and low-quality cancer care, according to a 2019 perspective in The New England Journal of Medicine. A 2021 study in the Annals of Surgical Oncology found that among 253 patients who underwent breast cancer screening, mammography rates are especially low for nonbinary and transgender patients in comparison to cisgender patients.

The socioeconomic gap is also important. The ACS found that in 2018, 64% of insured women had up-to-date breast cancer screenings, compared with only 30% of uninsured women. In May 2021, data from Washington State reported in a JAMA Network Open study showed a 49% reduction in screenings across more than 230 clinics from April through December 2020 compared with the same period in 2019. Women with the greatest mammography decreases were from rural areas as well as historically marginalized racial and ethnic groups—and they didn’t have Medicare or commercial insurance. A 2021 study in Cancer of 32 community health centers found the pandemic also disrupted progress at screening facilities serving low-income communities.

Another 2021 article in JAMA Network Open examined breast cancer screenings during the pandemic from September 2019 through January 2021 at a San Francisco safety net hospital. Black women had the lowest rate of completed mammograms during stay-at-home orders, and Latinx women also experienced substantially decreased rates. The researchers cautioned that steep declines in mammograms may exacerbate preexisting disparities and concluded that “in contrast to reports showing recovery of screening volumes, our data highlight persistent low [breast cancer] screening volumes.”

Ana Velázquez Mañana, MD, MSc, a clinical Instructor of medical oncology at the University of California, San Francisco (UCSF), who led the study and often treats patients with cancer who live in underserved communities, said that her team expected screening rates to decline during the pandemic, just not so steeply. “We knew that our patients—particularly because this is a safety net–based health care system—were really struggling with high rates of food insecurity, high rates of losing their homes, and a lot of competing priorities, which makes [preventive care] really hard,” Velázquez said.

Bumping Up the Rates
Although there’s no panacea to solving screening disparities, Velázquez said a good starting point is collaboration. “[Physicians] should be partnering with public health colleagues and working together instead of in silos,” she explained, adding that in medicine, “everybody develops a very specific focus, and I think that developing partnerships with people who have different life experiences and different areas of expertise is important, and that’s applicable to everything—from clinical trials, to increasing access, to developing interventions that are patient centered.”

Brennan mentioned that it’s crucial for people to know mammography coverage...
requirements under the Affordable Care Act, including Medicaid and Medicare. There also are centers that offer free or low-cost mammograms to those without insurance, and a referral isn’t necessarily required from a physician. “With education, better access, and mobile units going to low-income communities, we can attempt to lower the disparity in cancer screening,” she said.

However, Brown pointed out that policy still needs to change so that in the event of an abnormal mammogram result, patients receive additional care without out-of-pocket expenses. “Even if screening is covered, the diagnostic procedures, breast ultrasound, or other imaging that might be required to follow up on an abnormal screening report isn’t always covered,” she explained. “We’re working in the policy arena to ensure that even those who can get a mammogram have some financial support when they need further testing.”

Clinicians also can boost mammography rates by sending reminders to patients and reassuring them that it’s safe to get screened, even during a pandemic. “You need to know whether your patients are up to date on cancer screening—every single one,” Smith emphasized, adding that if a patient is due for a mammogram and isn’t scheduled for one, “then your role is to determine why and make sure they get back to screening.”

And no matter how the pandemic unfolds, it’s vital to continue routine screenings and detect early cancer. “Cancer does not pause for COVID,” Brennan said. -

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Note: Source references are available through embedded hyperlinks in the article text online.