

# DISPARITIES IN BREAST IMAGING

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BREAST IMAGING DIVISION HEAD



# DISCLOSURES

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- None



# OBJECTIVES

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- Disparity- definition
- COVID 19
- Disparities in Radiology
- Breast Cancer and Breast Imaging Disparity
  - African American women
- Cooper University Hospital's work/outreach
- What's a Radiologist to do???

# DEFINITION- HEALTH CARE DISPARITIES

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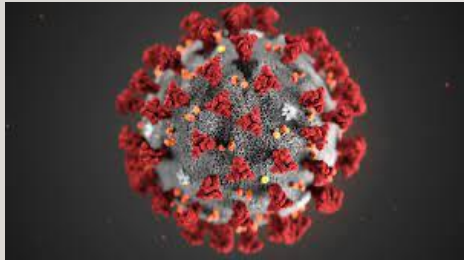
- Differences in how certain populations experience both prevalence and incidence of detrimental conditions compared to a national average.
- HCD can be the consequences of numerous barriers such as
  - financial barriers
  - low health literacy
  - language barriers



# COVID 19

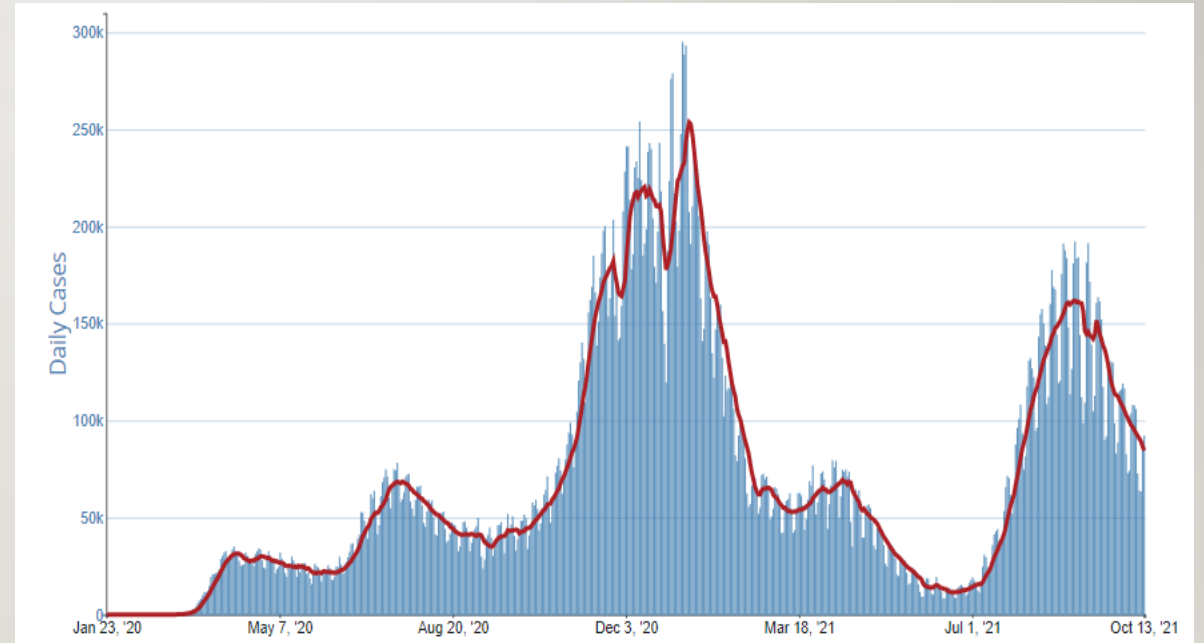
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- **Disease caused by SARS-CoV-2, the coronavirus that emerged in 2019**



- **45.2 M cases/ 732,000 deaths**
- **242 M cases/ 4.9 M deaths**

**Exposed deep and chronic HCD in the US**



# COVID 19

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- Served to emphasize the deadliness of long standing disparities
- Provides an opportunity for clinicians, health systems, and policy makers to address and improve health and well-being of all persons in US for both known and future illnesses

# HEALTH CARE DISPARITY AND RADIOLOGY

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- Imaging plays an important role in the propagation of disparities
- Advanced imaging (MRI/PET CT) generally less available in hospitals frequented by minorities or rural areas
- Important that we understand the existence of imaging disparities
  - Understand its causes
  - Reduce severity
- From the Department of Radiology, SUNY Downstate Medical Center, 450 Clarkson Ave, Brooklyn, NY 11203 (S.W., J.M.S.); and Department of Psychiatry, Weill Cornell Medical College, New York, NY (D.C.).

# HCD IN RADIOLOGY CONT.

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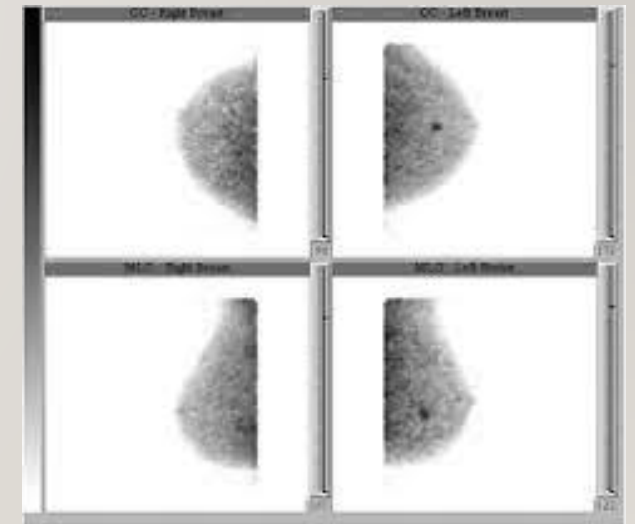
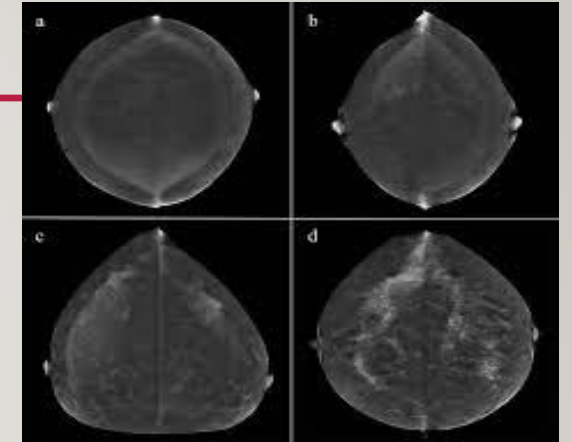
- Causes of Racial disparities
  - Patient- health literacy, medical mistrust, cultural differences, communication/linguistic differences
  - Provider- less access for their patients based on SES
  - System- lower technology imaging and procedures at lower quality hospital

From the Department of Radiology, SUNY Downstate Medical Center, 450 Clarkson Ave, Brooklyn, NY 11203 (S.W., J.M.S.); and Department of Psychiatry, Weill Cornell Medical College, New York, NY (D.C.).



# HEALTH CARE DISPARITY IN WOMEN'S IMAGING

- Most documented in field of radiology
  - Underuse of screening mammography among Black women
  - Longer travel and wait times
  - Lack of skilled technologist, Lack of Dedicated Breast imagers
  - Lack of new technologies ( MRI, CEMM, BSGI, tomosynthesis)



From the Department of Radiology, SUNY Downstate Medical Center, 450 Clarkson Ave, Brooklyn, NY 11203 (S.W., J.M.S.); and Department of Psychiatry, Weill Cornell Medical College, New York, NY (D.C.).

# BREAST CANCER AND HCD AND MAMMOGRAPHY

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- Disparities for African-American and Hispanic women in utilization of screening mammography
- Variable rates or times to diagnostic follow-up after screening mammography among African-American and Hispanic women
- Utilization of advanced breast imaging modalities, such as MRI or tomosynthesis

From the Department of Radiology, SUNY Downstate Medical Center, 450 Clarkson Ave, Brooklyn, NY 11203 (S.W., J.M.S.); and Department of Psychiatry, Weill Cornell Medical College, New York, NY (D.C.).



# BREAST CANCER

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- Breast cancer is the most commonly diagnosed nonskin cancer in the United States
- An estimated 325,010 new breast cancer cases (276, 480 invasive cancers and 48, 530 carcinomas in situ) are expected to be diagnosed in 2020, with 42, 170 deaths
- 1 in 8 American women will be diagnosed with breast cancer
- 1% of breast cancer occur in men

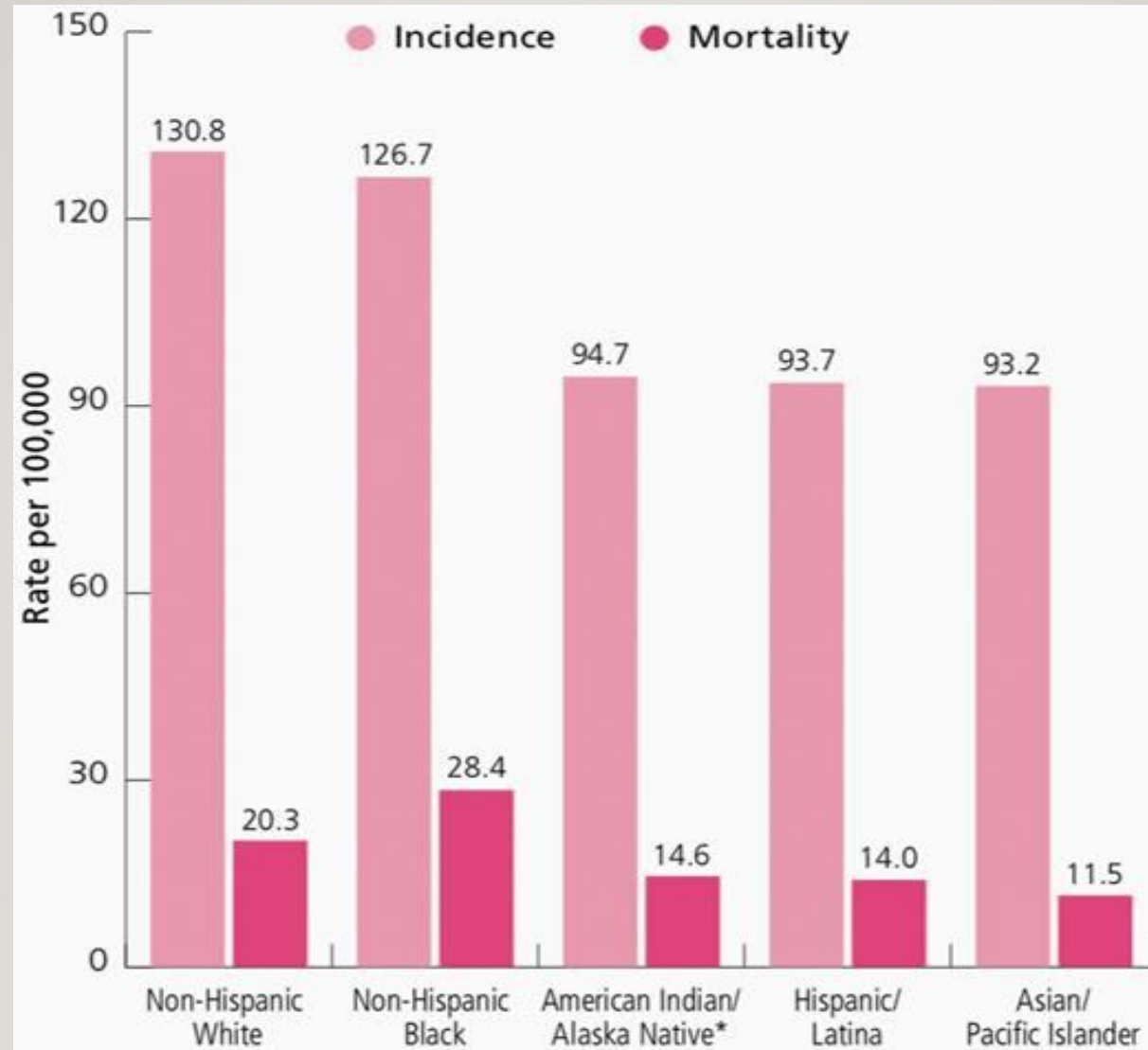




# BREAST CANCER

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- Death rate from breast cancer in the United States decreased overall by **40%** between 1989 and 2017
- Since 1990, breast cancer death rates only decreased by **26%** in African American women in contrast to **40%** in white women











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- USPSTF – United States Preventive Services Task Force
    - Independent volunteer panel in the fields of preventive medicine and primary care
    - Develop recommendations for screening guidelines across disciplines



## Breast Cancer Screening Guidelines – Comparison

	<b>ACR/SBI</b>	<b>ACS</b>	<b>ACOG</b>	<b>AMA</b>	<b>NCCN</b>	<b>USPSTF</b>
<b>Age to Start Mammography<sup>a</sup></b>	40	45 Option to start at age 40	Offer at 40, not later than 50	40	40	50
<b>Age to Stop Mammography</b>	No age limit; tailor to individual health status	When life expectancy is < 10 years	Age 75, then shared decision	Not stated	Not stated	74 years
<b>Mammography Interval</b>	Annual	Annual 45-54; Every 1 or 2 years 55 and older	Every 1 or 2 years	Annual	Annual	Every 2 years
<b>View on Tomosynthesis (3D) Mammography</b>	Improves cancer detection, reduces recall rates	Improvement in detection, lower chance of recall	Not stated	Not stated	Improves cancer detection, reduces recall rates	Insufficient evidence to support routine use; grade "I"  © DenseBreast-info.org Rev. March 2018

<sup>a</sup> In a 2018 analysis from Harvard\*, not considered in the current guidelines, black, Hispanic, and Asian women have peak incidence of breast cancer in their 40s and should begin screening at least by age 40. \*Stapleton SM, Oseni TO, Bababekov YJ, Hung Y, Chang DC. Race/Ethnicity and Age Distribution of Breast Cancer Diagnosis in the United States. *JAMA Surg.* Published online March 7, 2018. doi:10.1001/jamasurg.2018.0035



## USPSTF Breast Cancer Screening: Summary of Recommendations (2009)

- Recommends biennial screening mammography for women aged **50 to 74 years**.
  - **Grade B Recommendation.**
- Decision to start regular, biennial screening mammography **before age 50** should be individual one and take patient context into account, including patient's values regarding specific benefits and harms.
  - **Grade C Recommendation**
- Concludes current evidence insufficient to assess additional benefits and harms of screening mammography in women  $\geq 75$  years.
  - **Grade I Statement**

## WHAT EVERY WOMAN SHOULD KNOW ABOUT MAMMOGRAPHY SCREENING

### 1 Screening mammograms save lives

Screening mammography prevents deaths from breast cancer through early detection. This is supported by clear evidence from studies showing fewer breast cancer deaths in women who had screening mammograms compared to those who did not.

### 2 Regular screenings make a difference

The most breast cancer deaths are prevented and lives saved when screening mammography is performed annually beginning at age 40.

### 3 Early detection reduces severity of treatment

Early detection with mammography not only saves lives but also reduces the severity of treatment that women with breast cancer must undergo. Studies have demonstrated that women whose breast cancers are found with screening mammography are less likely to have more intensive treatment such as mastectomy or chemotherapy.

### 4 Results aren't always right

The primary limitations of screening mammography are that it will not find all cancers and may require some additional testing for non-cancers. Physicians and scientists continue to work to improve breast cancer screening methods. One example is digital breast tomosynthesis (DBT), a new 3-D technique for performing screening mammography that is now available. DBT is a more accurate mammogram which directly addresses the limitations of standard mammography.



#ENDTHECONFUSION

## 1 in 6

Breast cancers occur in women between the ages of 40-49.

**3/4**   
of women diagnosed with breast cancer have no family history of the disease and are not considered high risk.



Even for women 50+, skipping a mammogram every other year would miss up to 30% of cancers.





The years of life lost to breast cancer are highest for women in their 40s.

## 40%

of all the years of life saved by mammography are among women in their 40s.

**40**  
IS AN  
**IMPORTANT**  
**NUMBER**

 All women 40 and older should get annual mammograms

 Mammography can lower your risk of dying of breast cancer by 40%

 The most lives are saved by yearly mammography starting at age 40

- 40% of ALL years of lives saved by screening mammograms are among women in their 40s
- The years of life lost by breast cancer are highest for women in their 40s
- 1 in 6 breast cancers occur in women between ages 40-49



# WHAT'S THE DEAL WITH THE GUIDELINES?

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- Based on clinical trials that included **FEW** women of color
- outcome would be different if they included a more diverse population based on the differences in the biology of breast cancer in Black women.

# BREAST CANCER SCREENING RECOMMENDATIONS: AFRICAN AMERICAN WOMEN ARE AT A DISADVANTAGE

*JOURNAL OF BREAST IMAGING*, VOLUME 2, ISSUE 5, SEPTEMBER/OCTOBER 2020, PAGES 416–421

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- The **age** at diagnosis of breast cancer is younger in black women.
- **BRCA mutations** are common in African American women
- **triple-negative** subtype of breast cancer is more common in black women.
- **higher incidence of aggressive breast cancer at a younger age, black women may be disadvantaged by organizations recommending initiation of screening mammography at age 50.**

# 40 IS AN IMPORTANT NUMBER



All women 40 and older should get annual mammograms



Mammography can lower your risk of dying of breast cancer by 40%



The most lives are saved by yearly mammography starting at age 40

**1 in 6**  
breast cancers occur in women 40-49

Ten year risk for breast cancer in 40 year old is  
**1 in 69**

A Harvard study showed that  
**70%** of women who died from breast cancer were among 20% of women not screened\*

\*Harvard Teaching Hospitals statistic



Early detection significantly improves breast cancer survival, reducing the risk of dying of breast cancer by 40%

REMEMBER:  
75% of women with breast cancer have NO family history or other risk factors



Mammography has helped to reduce breast cancer deaths by 1/3 since 1990



When breast cancer is detected early the five year survival rate is almost 100%



Remind your mother, sister or daughter to schedule an annual mammogram. Take the time for yourself. Save a life.



Even for women 50+ skipping a mammogram every year would miss up to 30% of cancers



Mammography can detect cancer early when it is most treatable

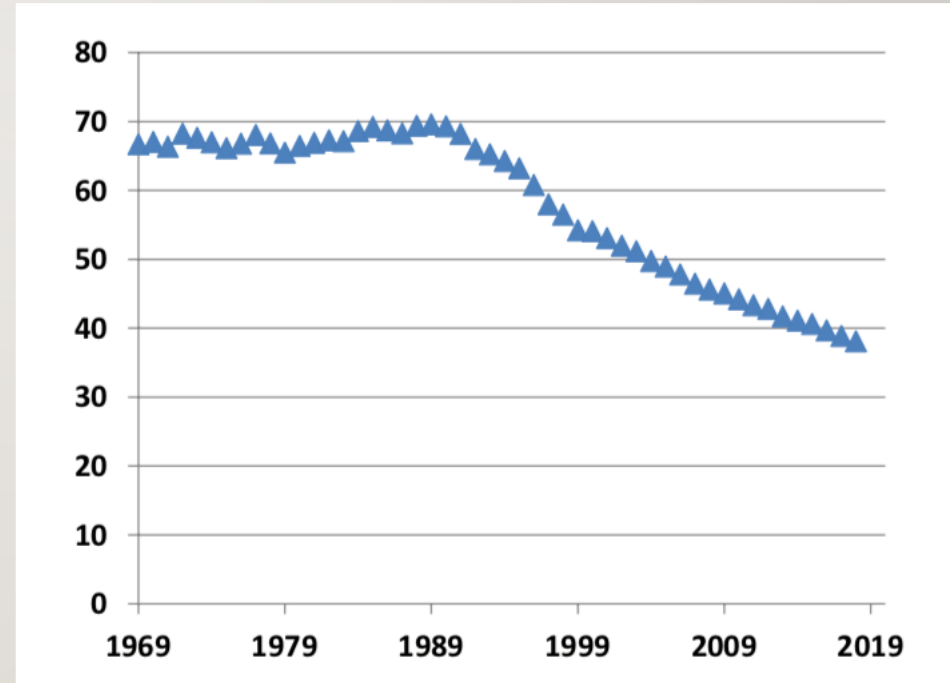
Major American medical organizations with expertise in breast cancer care, including the American Congress of Obstetricians and Gynecologists, continue to recommend that women start getting annual mammograms at age 40.



# GOAL OF SCREENING MAMMOGRAPHY

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- Early detection of stage I node negative cancer
- Widespread utilization of mammography demonstrates a resultant decrease in mortality





# FACTORS AFFECTING SCREENING MAMMOGRAPHY UTILIZATION

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- Public policy
- Health Insurance coverage
- Primary care physician/provider access and referral
- Screening guidelines

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- Health Insurance

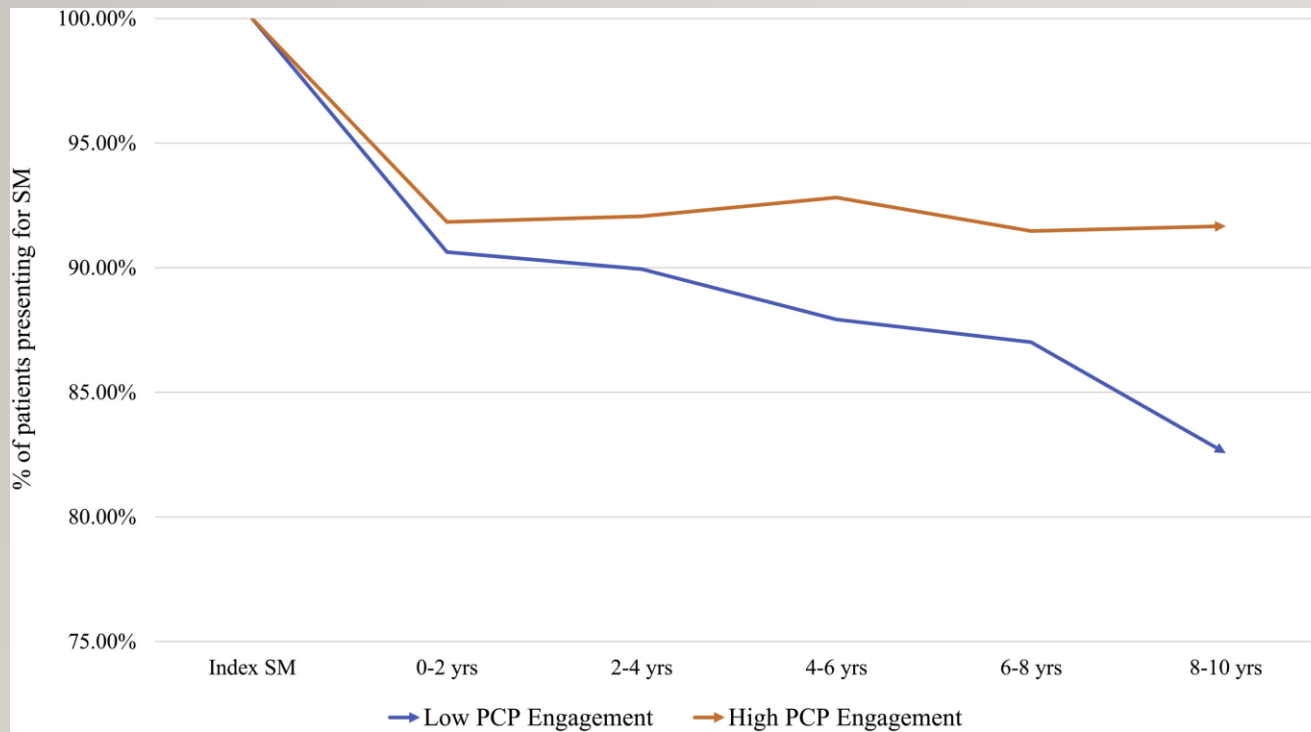
- Insurance carriers typically use the USPSTF guidelines for reimbursement
- African Americans are twice as likely as non Hispanic White Americans to be uninsured/underinsured
  - Less likely to undergo screening – later stage diagnosis

# PRIMARY CARE ACCESS

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- One of the best predictors to obtaining screening mammography
- Systematic review focused on minority populations demonstrates that working with providers to encourage participation in screening was more effective than working directly with patients
- Underserved communities often access the health care system during emergencies – no screening recommendations at point of care

Flores, E; Lopez D  
Impact of Primary Care Physician Interaction on Longitudinal  
Adherence to Screening Mammography Across Different  
Racial/Ethnic Groups  
JACR 2019 16:7



Flores, E; Lopez D  
Impact of Primary Care Physician Interaction on  
Longitudinal Adherence to Screening Mammography  
Across Different Racial/Ethnic Groups  
JACR 2019 16:7



# SOLUTIONS

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- Educating primary care physicians and providers regarding ACR/SBI guidelines for high risk screening evaluation
- Educating primary care physicians and providers regarding ACR/SBI guidelines for mammography for average risk patients

Flores, E; Lopez D  
Impact of Primary Care Physician Interaction on Longitudinal Adherence to Screening  
Mammography Across Different Racial/Ethnic Groups  
JACR 2019 16:7

# SCREENING RECOMMENDATIONS

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- All women especially African American women should be evaluated for breast cancer risk no later than the age of 30.
  - **Average risk**
    - Shall begin screening mammography at the age of 40
    - Shall continue as long as the woman is in good health, chooses to be screened, intends to seek and tolerate treatment and or the life expectancy is equal to or greater than 10 years.

These recommendations are in line with those of the:

[Society of Breast Imaging](#)

[National Comprehensive Cancer Network](#)

[American Society of Breast Surgeons](#)

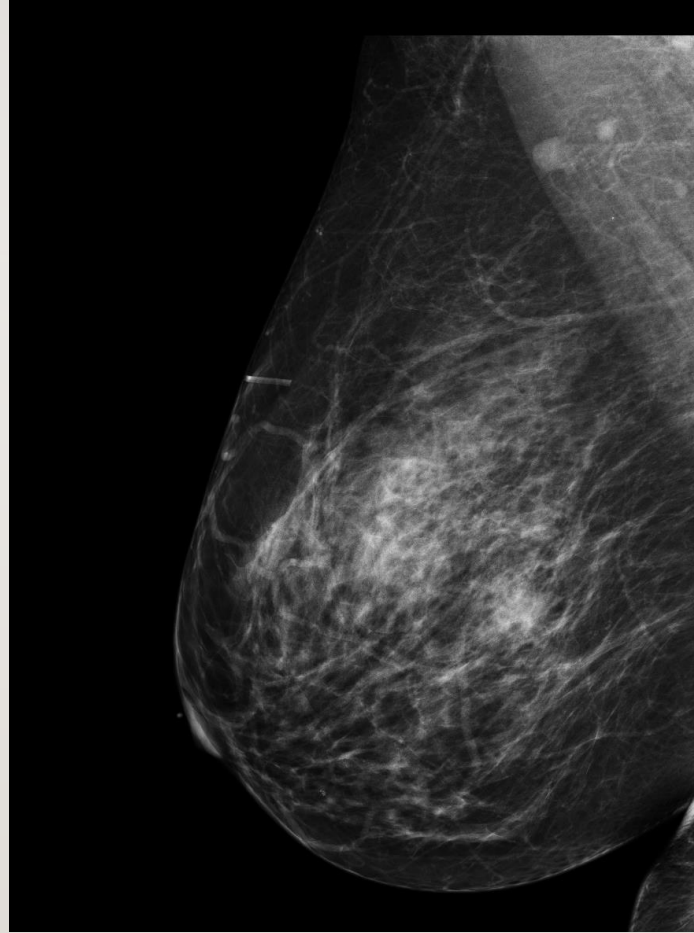
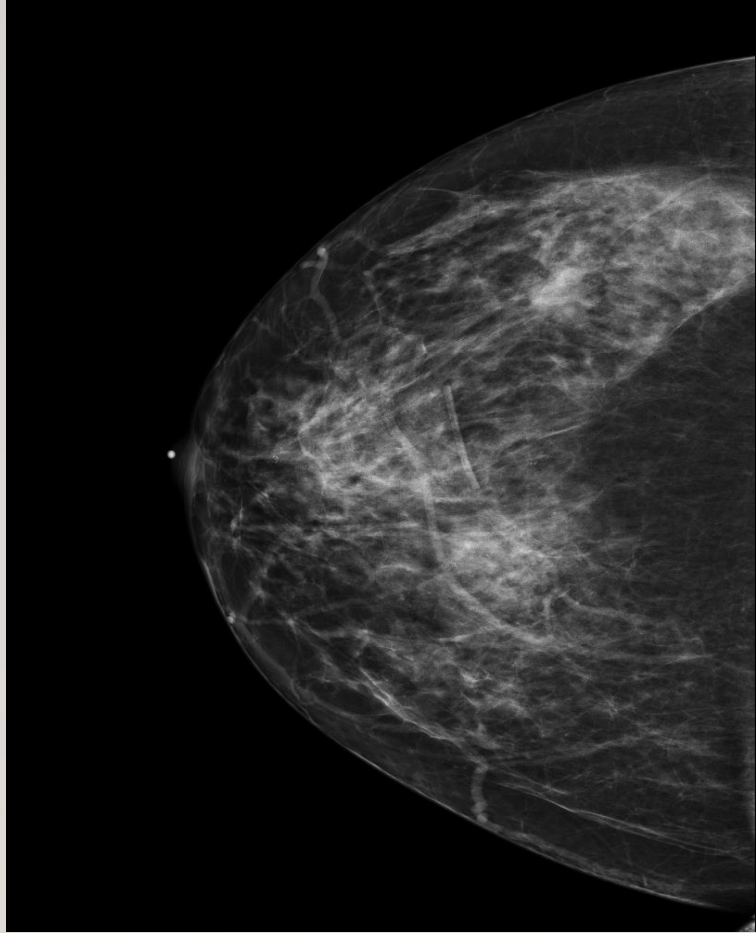
[Society of Surgical Oncology](#)

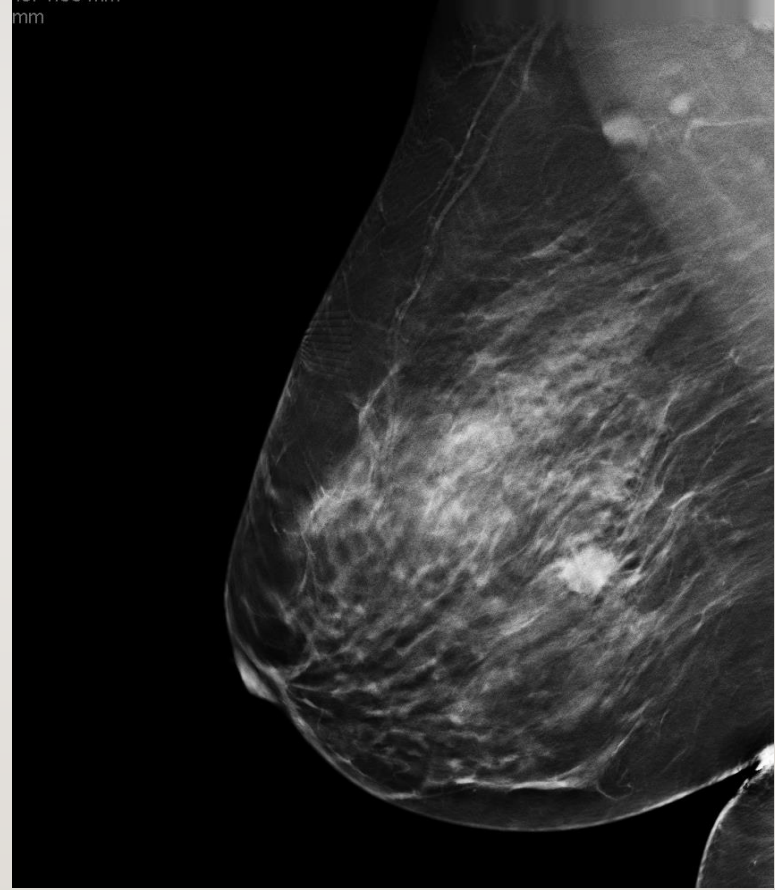
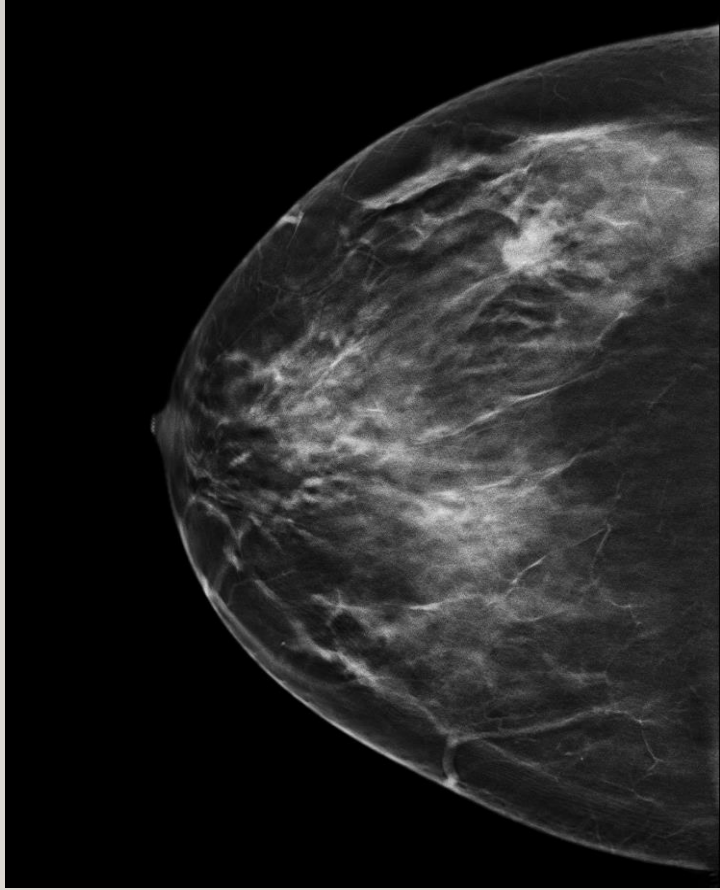
# BREAST IMAGING MODALITIES

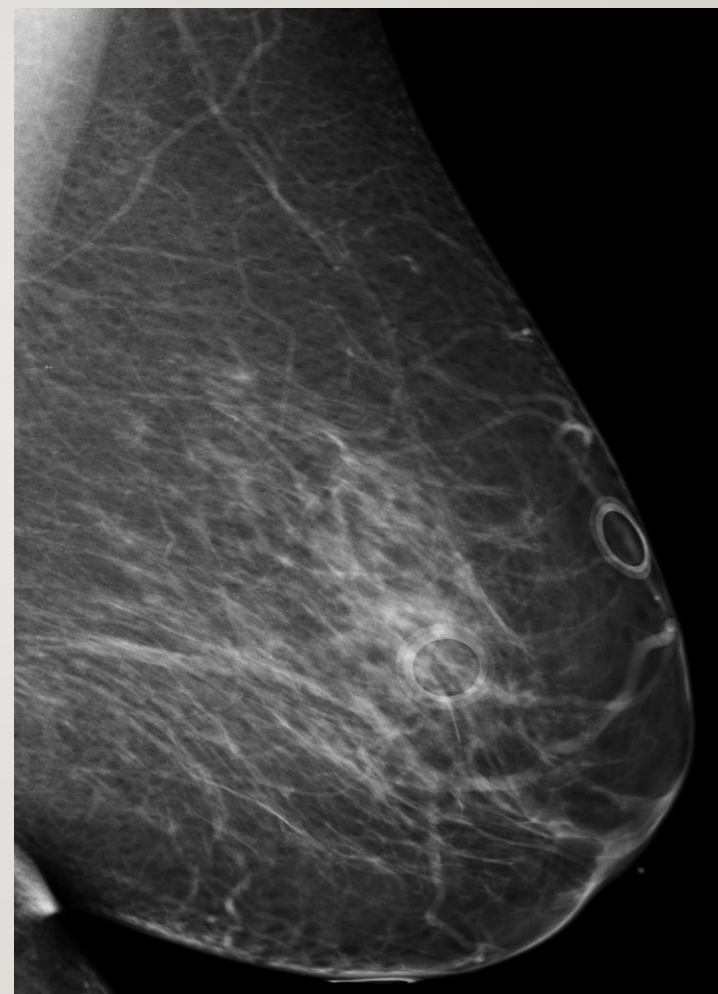
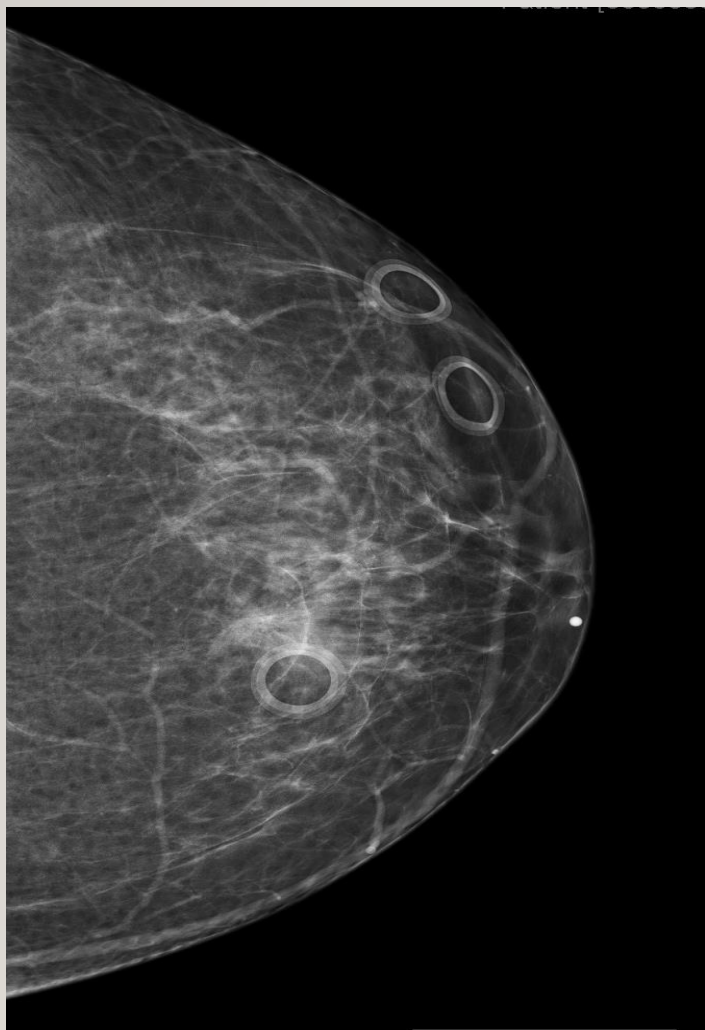
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- New technologies have emerged that improve cancer detection rates
  - Digital Breast Tomosynthesis (DBT)
  - Whole breast screening ultrasound/ABUS (Automatic Breast Ultrasound System)
  - Breast MRI/ fast MRI exams
  - Molecular Breast Imaging (BSGI- Beta Specific Gamma Imaging)
  - Contrast-Enhanced Spectral Mammography (CESM)
- Breast Density Notification Laws further facilitate the use of these technologies
  - Currently mandated in 38 states

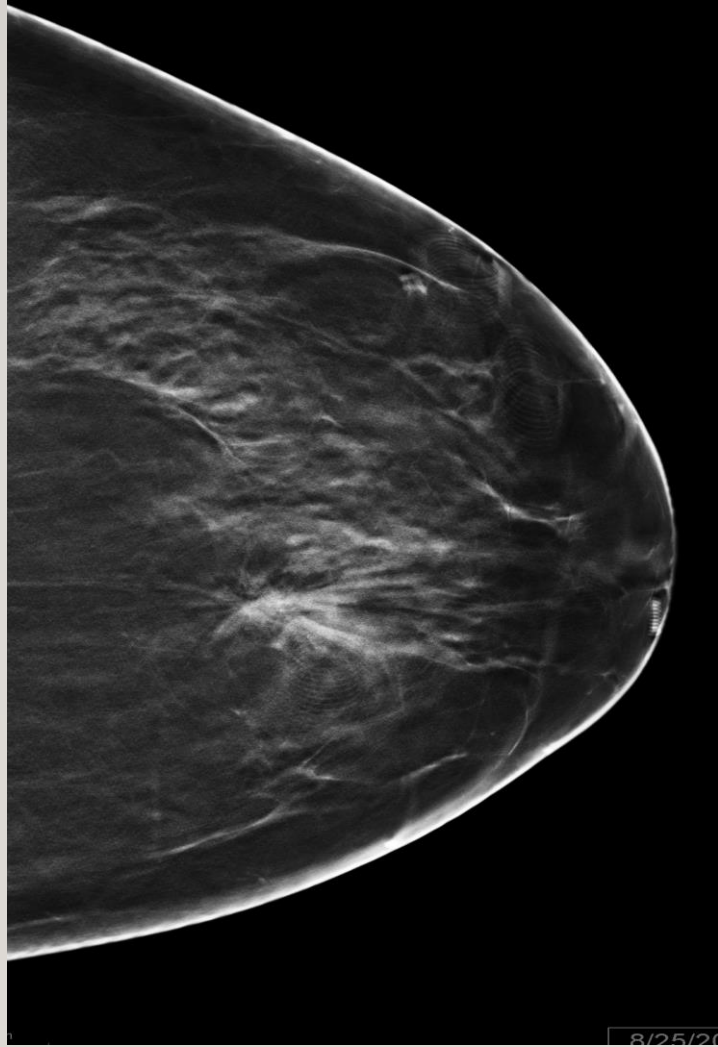


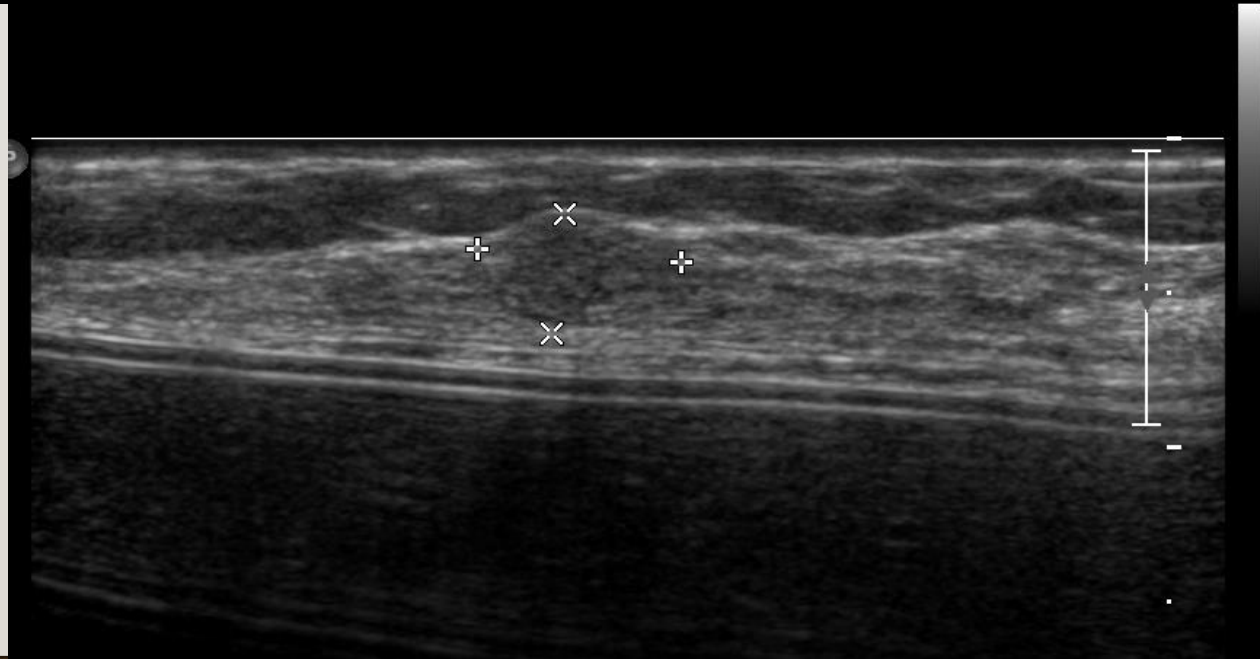
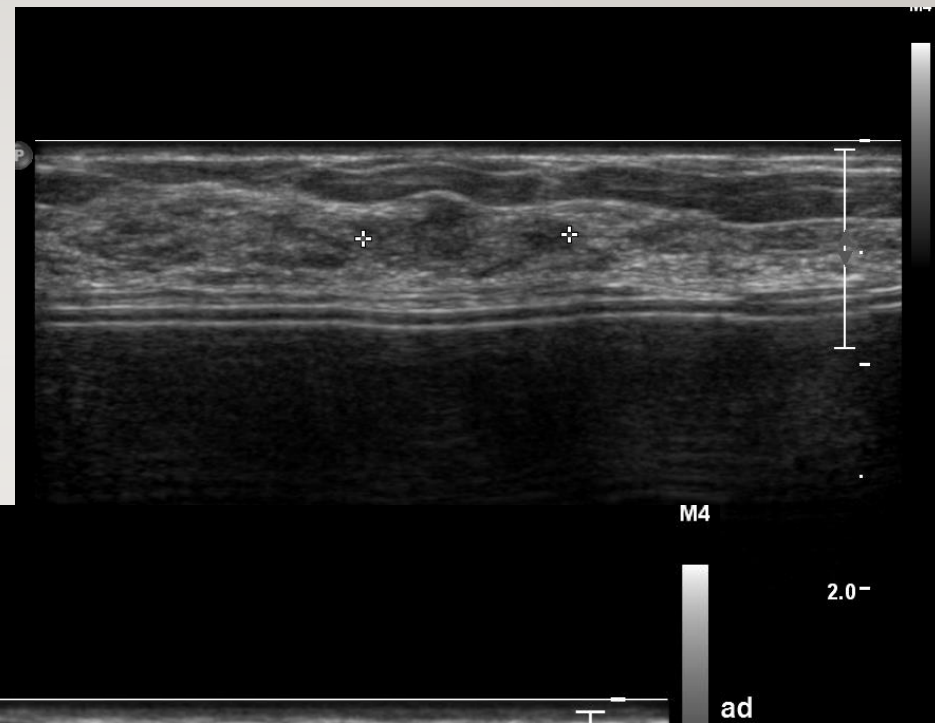
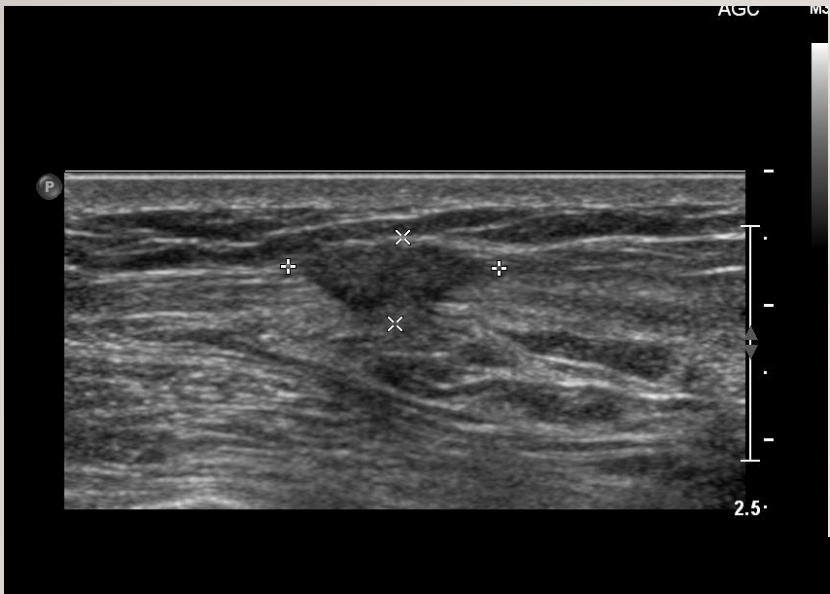




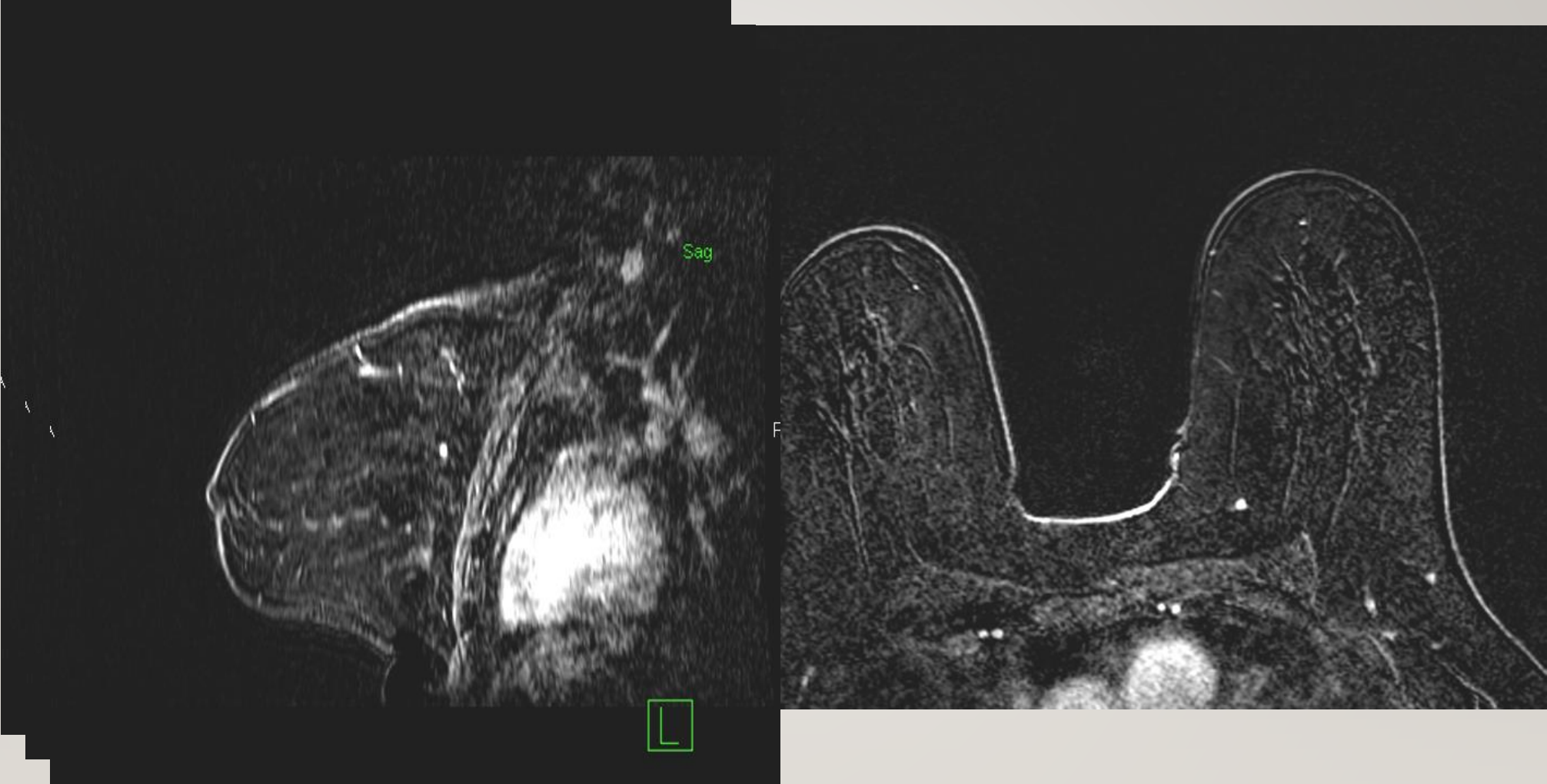




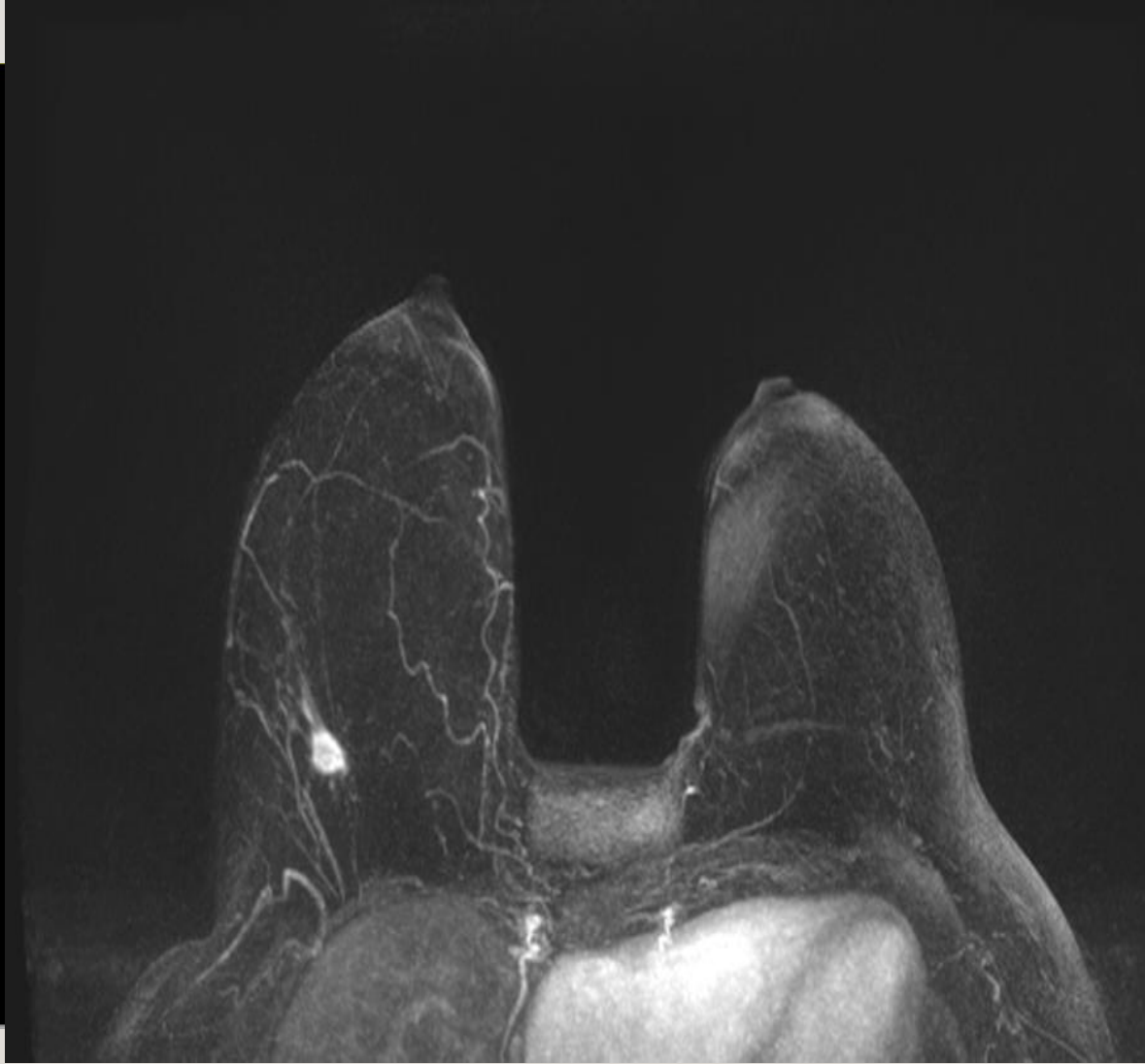


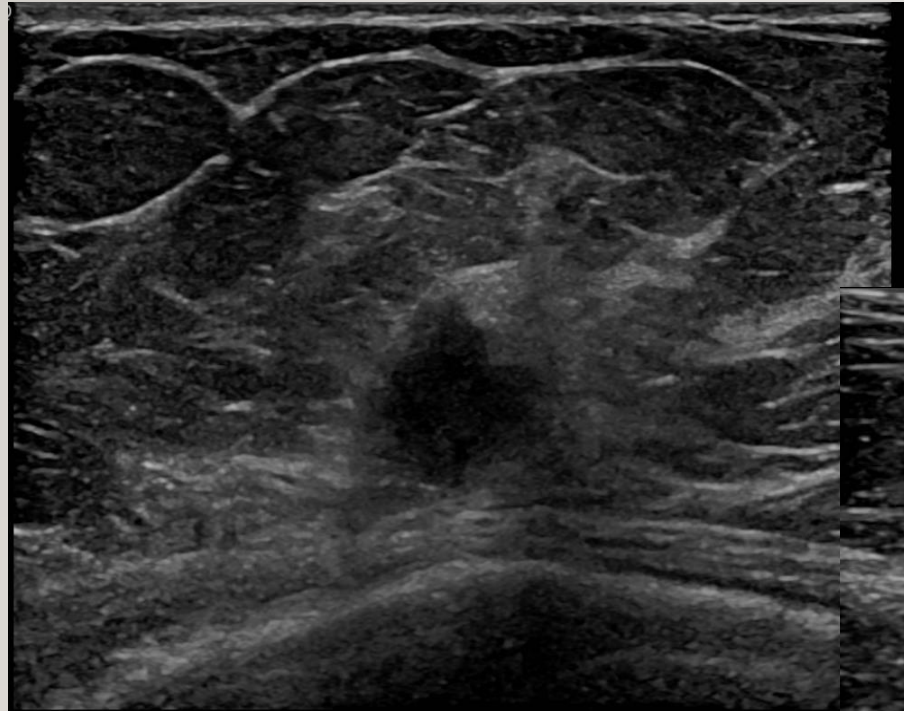




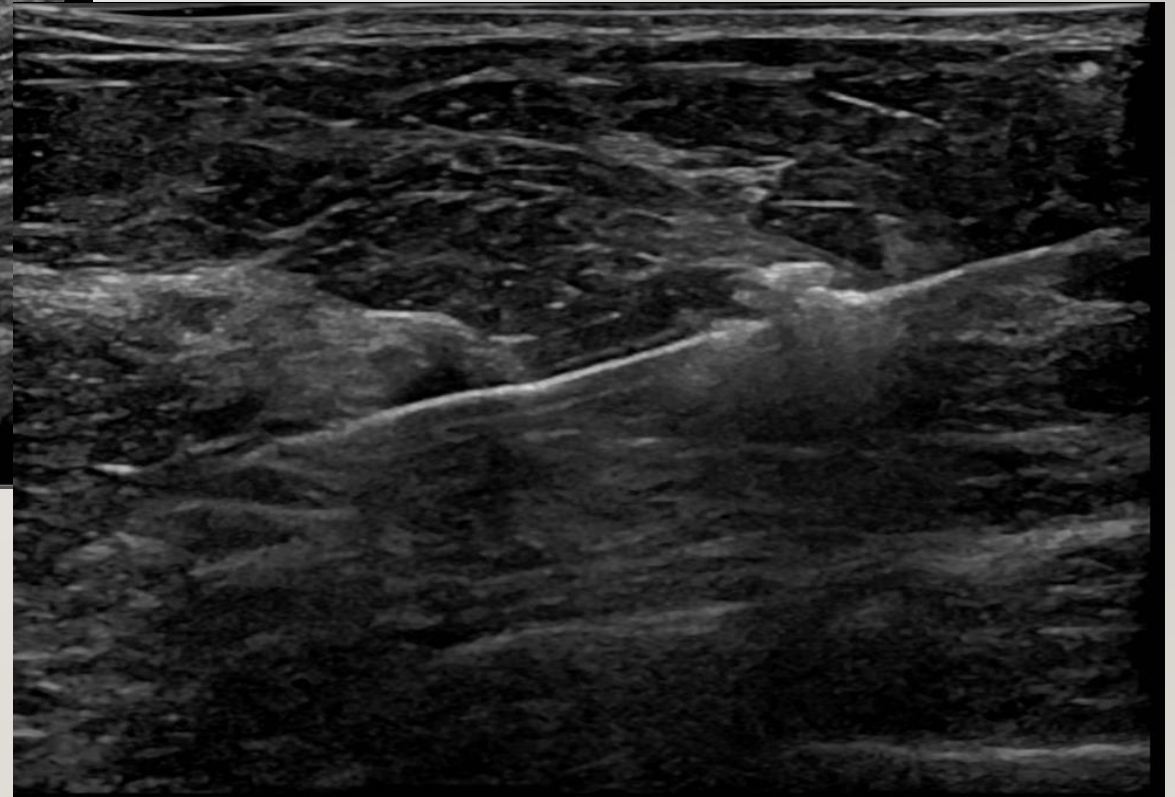








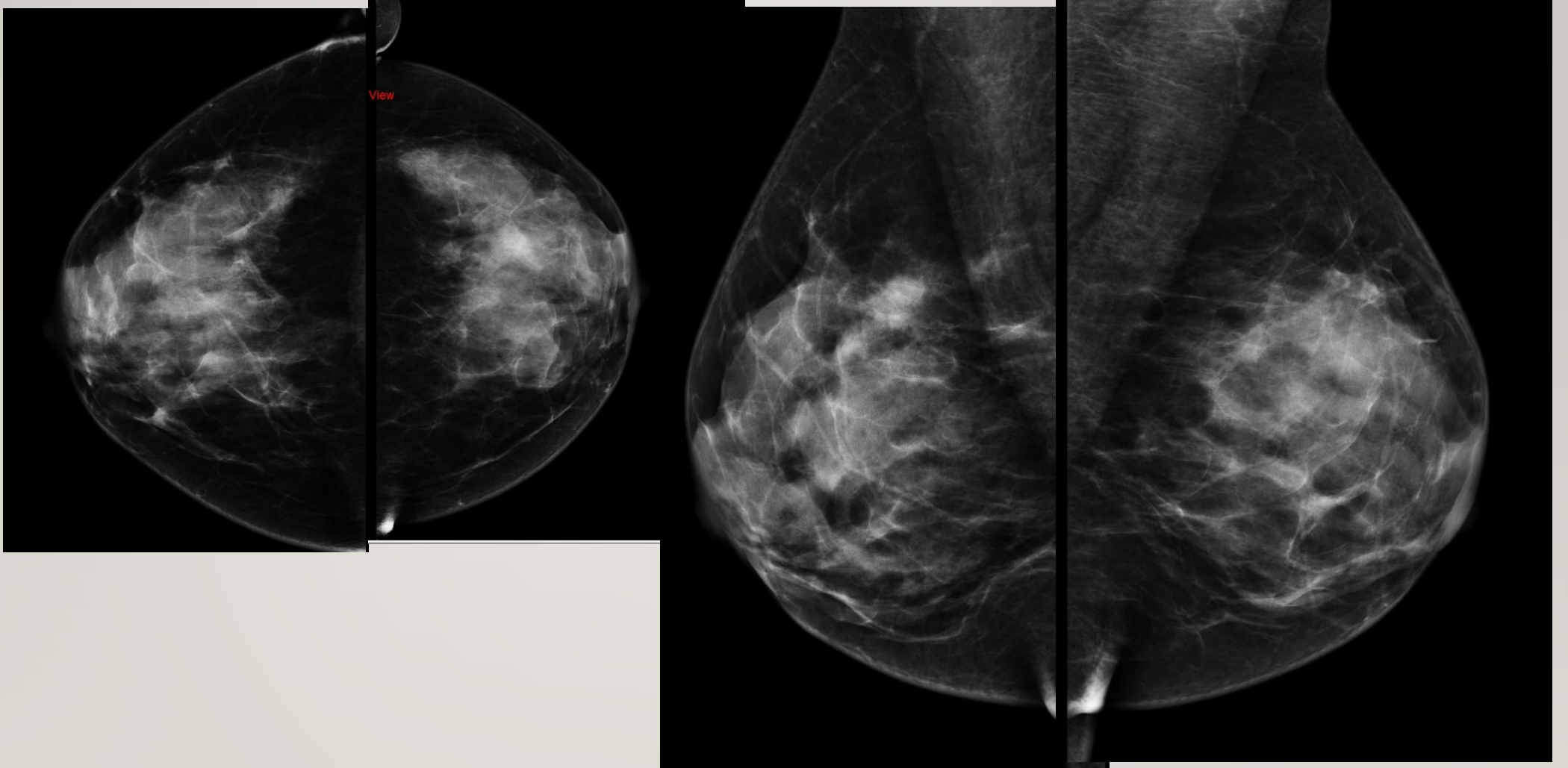
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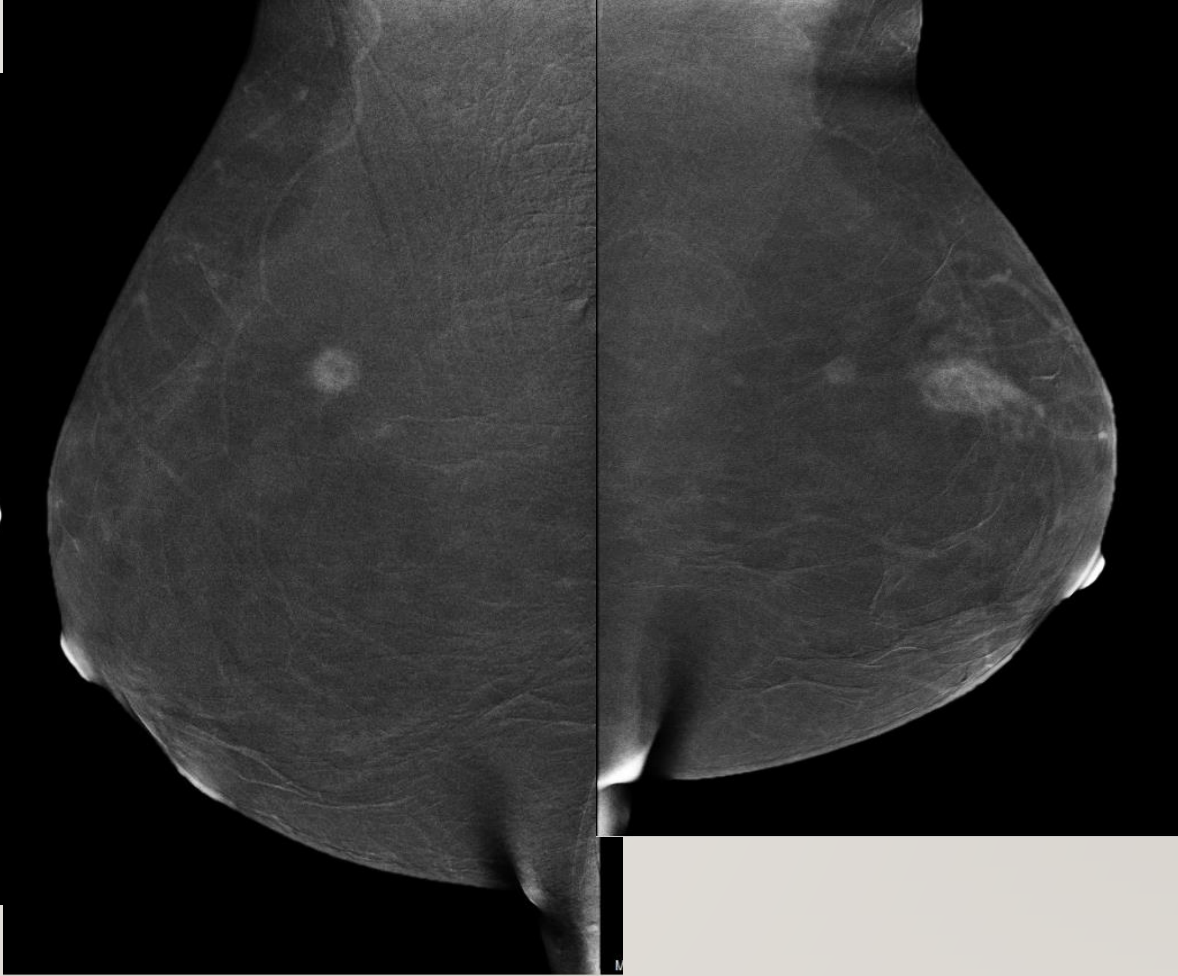
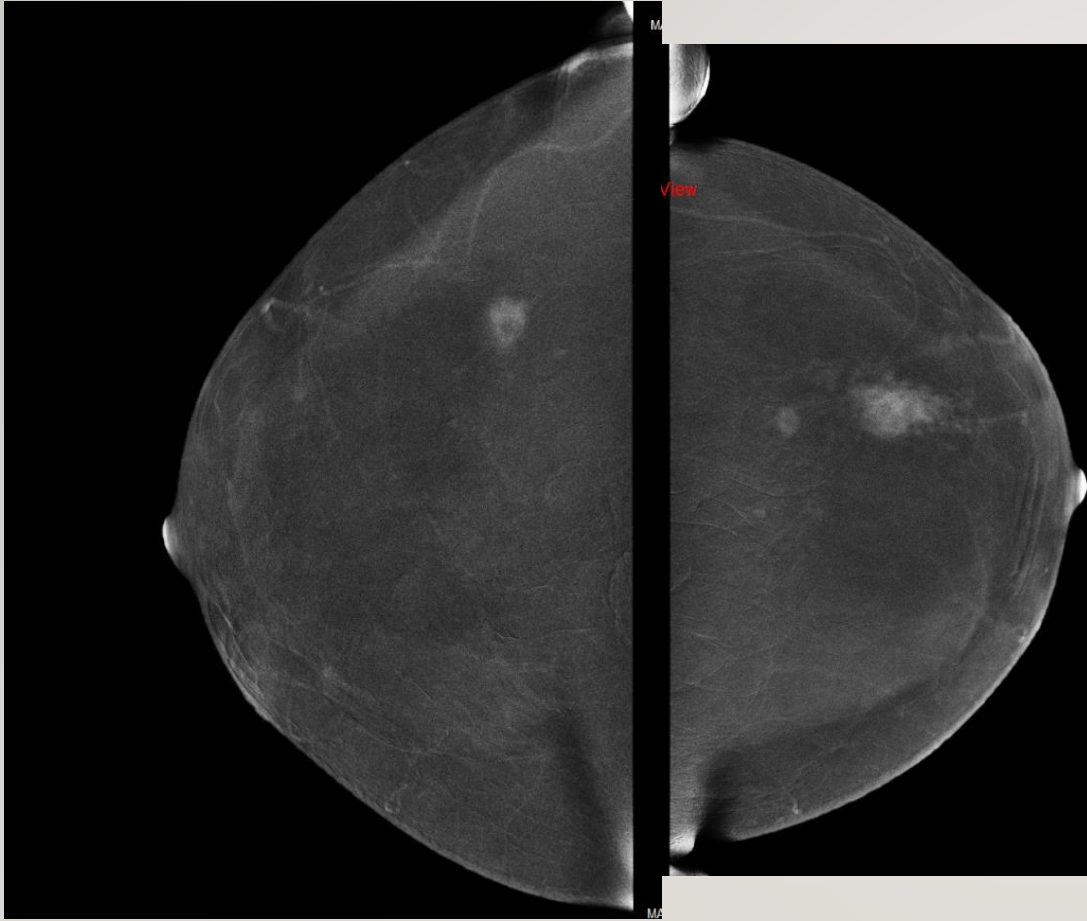


RT BREAST 9:00 10 CMFN ANTI-RAD BIOPSY BARD PASS 1











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- Life's most persistent and urgent question is, 'What are you doing for others?'
  - Dr. Martin Luther King Jr.

# RESOURCES AT MDA COOPER FOR UNDERSERVED COMMUNITIES

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- State and federal funded program
- Breast, cervical, prostate and colorectal cancer screening at no cost for Camden residents but can include any NJ resident
- Uninsured and underinsured
- Covers screening and diagnostic studies and consults
- Medicaid obtained if breast or cervical cancer diagnosis and Medicaid eligible







# Welcome to Cooper's Breast Imaging Center

Did you receive this  
email or postcard?

¿Recibiste este correo electrónico  
o postal?



We want to hear from you!

¿Queremos oír de ti!



Scan the QR code and answer  
our short survey.

Escanea el código QR y toma nuestra breve encuesta.

MD Anderson  
Cancer Center  
Making Cancer History



camden  
county  
BOARD OF COMMISSIONERS  
Making It Better. Together.



# IDEAS FOR FUTURE

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- “culturally tailored” nurse navigators
- Mobile mammography units
- Improving communication gap and patient education
- Provider education
- Radiology advocacy

# CONCLUSION

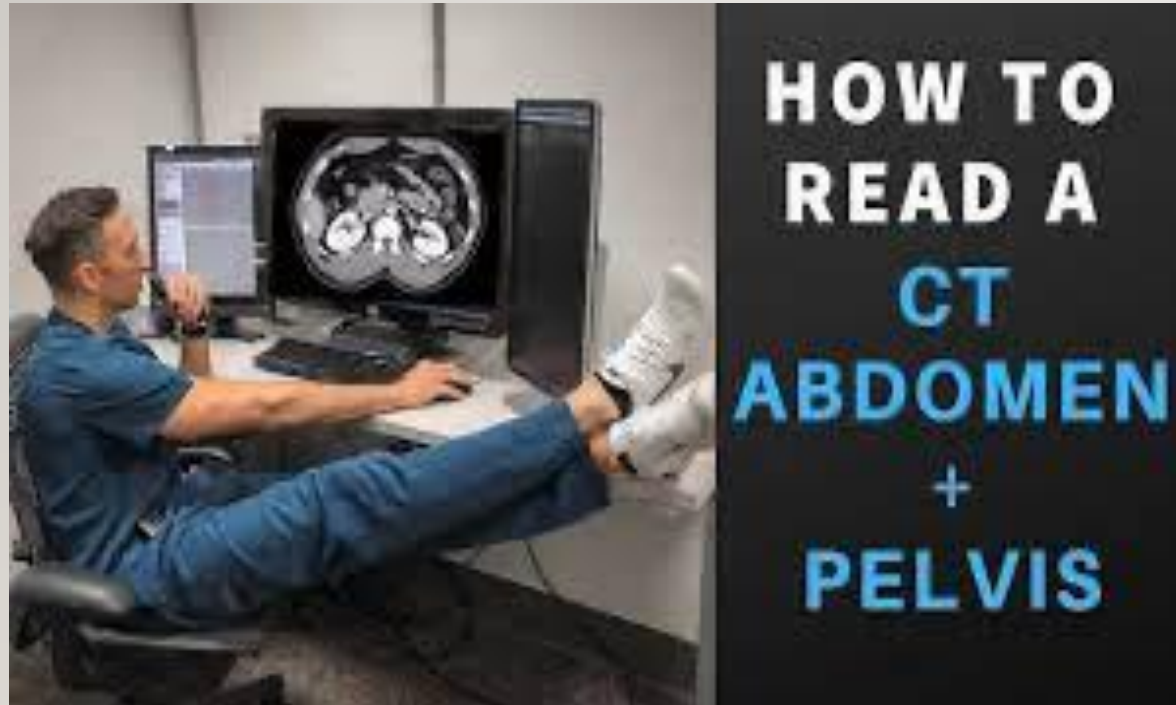
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- Annual mammography beginning at age 40 years achieves the greatest mortality reduction for women at average risk
- Risk assessment tools identify those patients who may benefit from more intensive screening programs.
- Until African American women are actively encouraged to undergo both risk assessment -at the latest the age of 30 – and annual screening mammography – the disparities in mortality will persist.

- “If I cannot great things, I can do small things in a great way.”  
-Dr. Martin Luther King Jr.

# RADIOLOGY AND HCD

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## WE CAN DO MORE!

supporting education

diversity and inclusion efforts

disparities research

advocacy.



**Hot Topics in Women's Health:  
Breast Health Myths and Facts**



ALLISON BITTENS, MD  
HEAD, SECTION OF BREAST IMAGING  
KAT YOON-PLANKOFF, MD  
CO-DIRECTOR, FANET AHERN/ED BREAST CANCER CENTER




**BREAST HEALTH  
DISPARITIES**



**IN THE ERA OF  
COVID-19**

**Breast Cancer Screening:  
Everything the  
Internal Medicine Doctor  
Needs to Know**



Robyn G. Roth MD  
Assistant Professor of Radiology  
Breast and Abdominal Imaging  
Women's Imaging Fellowship Director



# CONCLUSION

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- HCD
- Role in breast cancer and imaging
- What outreach programs are available at Cooper
- Role of radiologists to help address HCD

