SCREENING FOR BREAST CANCER

RECENT DEVELOPMENTS IN MAMMOGRAPHY:

DENSE BREAST LEGISLATION

US PREVENTATIVE SERVICES TASK FORCE & ACS
CANCER SCREENING

• **BENEFIT**: EARLY DETECTION LEADS TO EFFECTIVE TREATMENT, BETTER SURVIVAL

• **CONCERNS**: COST, OVERDIAGNOSIS (FALSE POSITIVE), AND FAILURE TO DETECT (FALSE NEGATIVE)

• TO BE COST EFFECTIVE, MUST RESTRICT SCREENING TO THOSE AT INCREASED RISK, USING TOOLS THAT ARE SENSITIVE.
What is the most important factor in failure of mammography to detect cancer?

Breast Density

- Fat
- Ducts
- Lobules
False Reassurance
Same patient; functional imaging technique

7 cm IDC not seen on mammography
74% have dense breasts at age 40-50
36% have dense breasts at age 70-80
DENSE BREAST LEGISLATION

• **2009**: CT BECAME FIRST STATE REQUIRING THAT WOMEN BE INFORMED IF THEIR MAMMOGRAMS SHOW DENSE BREASTS, AND THEY MAY BENEFIT FROM SUPPLEMENTAL SCREENING.

• **2012**: TX, VA, NY PASSED LEGISLATION

• **2015**: 22 STATES PASSED, MANY OTHERS IN PROGRESS

• THIS PROCESS IS WOMEN-DRIVEN: DIANE FEINSTEIN AND THE MAMMOGRAPHY QUALITY STANDARDS ACT
WHAT SUPPLEMENTAL SCREENING?

- BREAST ULTRASOUND, MANUAL, AUTO
- TOMOSYNTHESIS – 3D MAMMOGRAM
- MAGNETIC RESONANCE IMAGING
- MOLECULAR BREAST IMAGING – MAYO
- CONTRAST MAMMOGRAM - MEMORIAL
MOLECULAR BREAST IMAGING TC-99 SESTAMIBI

Mammogram November 2008
Mammogram October 2010
MBI October 2010

Grade III Invasive Lobular Carcinoma, 3.6 cm; node positive

Slide courtesy of Deborah J Rhodes MD
US PREVENTIVE SERVICES TASK FORCE (USPSTF): AVERAGE RISK WOMEN

- 40 – 49 DISCUSS WITH PHYSICIAN WHETHER TO HAVE MAMMOGRAPHY
- 50 – 74 MAMMOGRAPHY EVERY 2 YEARS
AMERICAN CANCER SOCIETY GUIDELINES: AVERAGE RISK WOMEN

- 40 – 44 OFFER CHOICE TO START ANNUAL MAMMOGRAMS
- 45 – 54 ANNUAL MAMMOGRAMS
- 55 + CHOICE TO SWITCH TO EVERY 2 YRS
- ELDERLY? CONTINUE IF HEALTHY (LE>10Y)
- ALL WOMEN SHOULD KNOW HOW THEIR BREASTS LOOK AND FEEL, AND REPORT ANY CHANGES RIGHT AWAY.
CONCLUSION:
DON’T STOP SCREENING. SCREEN BETTER

• ULTRASOUND, TOMOSYNTHESIS, MRI, CONTRAST-ENHANCED MAMMOGRAM, AND MOLECULAR BREAST IMAGING ALL DETECT MORE CANCERS THAN MAMMO ALONE.

• PROSPECTIVE TRIALS ARE COMPARING EFFICACY OF THESE.

• PHYSIOLOGY OVER ANATOMY