

Understanding Breast Cancer Risk

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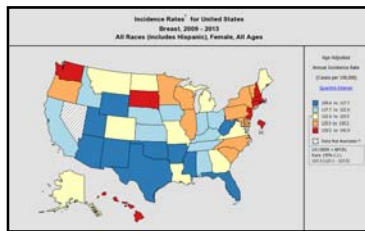
IHA Breast Surgery
 Medical Director Breast Care Program
 St. Joseph Mercy Hospital



Think about numbers



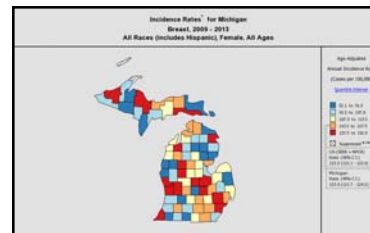
Breast Cancer in the US



Created by statecancerprofiles.cancer.gov on 08/15/2016



Breast Cancer in Michigan



Created by statecancerprofiles.cancer.gov on 08/15/2016



Breast Cancer in Our Communities

	Avg. Annual Cases 2009-2013
United States	224,504
Michigan	7,426
Wayne	1,408
Washtenaw	1,404
Ingham	178
Livingston	123
Jackson	113
Monroe	94
Lenawee	73

Source: statecancerprofiles.cancer.gov on 08/15/2016 5:28 pm



We all have a family member, friend, colleague whose life has been impacted by breast cancer. How can we be put all of this into context?



Understand your personal risk factors

- Family history
 - Talk about something other than politics. How about cancer?
 - Ask questions about those “below the belt” cancers
 - Tell your doctor about updates to your family history
- Prior breast biopsies
 - High risk biopsy results
- Exposures
 - Therapeutic radiation
 - Estrogen exposure

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What's my risk?



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Average Risk: 12% life time risk of breast cancer and 1.3% risk of ovarian cancer (most women)

- No significant family history of breast or ovarian cancer
- No known genetic predisposition (BRCA 1/2 mutation)
- Never had a high risk biopsy finding

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Increased risk: up to 25% lifetime risk of breast cancer

- At least one first degree relative with breast or ovarian cancer
- History of an abnormal or high risk breast biopsy result
- History of radiation treatment to chest (Hodgkin's Lymphoma)

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High risk: 45-80% lifetime risk of breast cancer and up to 54% risk of ovarian cancer

- Hereditary breast or ovarian cancer syndrome (BRCA1/2 and other genes)
- First degree relative with HBOCS
- Genetic counseling

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<https://www.cancer.gov/bcrisktool/>

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Risk assessment

- DIY - <https://www.cancer.gov/bcrisktool/>
- Risk assessment using known risk calculators
- Genetic counseling
 - Three generation pedigree
 - Details about family history
 - Determines if testing is appropriate
 - Explains results and puts them into context

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Consider these facts about breast cancer

- There is some good news out there
 - Early detection and treatment saves lives
 - Breast cancer mortality is decreasing in the US
- Cardiovascular disease is a much greater threat to the health and well-being of women
 - An estimated **44 million women** in the U.S. are affected by cardiovascular diseases.
 - **90% of women have one or more risk factors** for heart disease or stroke.

<https://www.goredforwomen.org>

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Think about this:

- Many risk factors are modifiable
- What's good for the heart is good for the breasts

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BREAST HEALTH AND GENETICS

Li Ding
IHA Hematology Oncology
Consultants

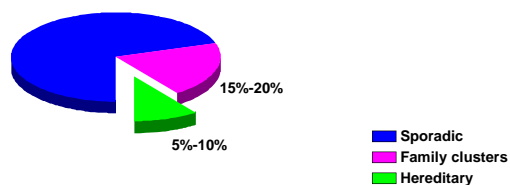
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Breast Cancer Risk

- The lifetime probability of developing breast cancer is one in six overall
- About 50% of cases can be explained by known risk factors.
- An additional 20% are associated with a positive family history

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How Much Breast Cancer is Hereditary?



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What is Hereditary?

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Genetic Testing

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Who Should Be Tested?

- Family history
 - One or more relatives with breast cancer
 - Early age at the diagnosis of cancer
 - Family history of breast and ovarian cancer
 - Bilateral breast cancer
 - Breast cancer in male members

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Who Should Be Tested?

- Family history
 - One or more relatives with breast cancer
 - Early age at the diagnosis of cancer
 - Family history of breast and ovarian cancer
 - Bilateral breast cancer
 - Breast cancer in male members
- Known or suspected BRCA 1/2, TP53, PTEN or other gene mutation

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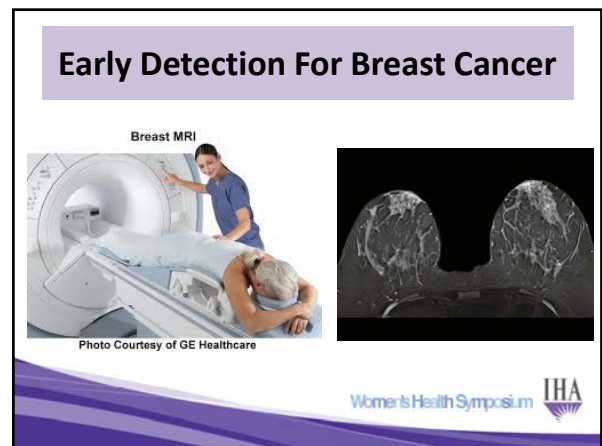
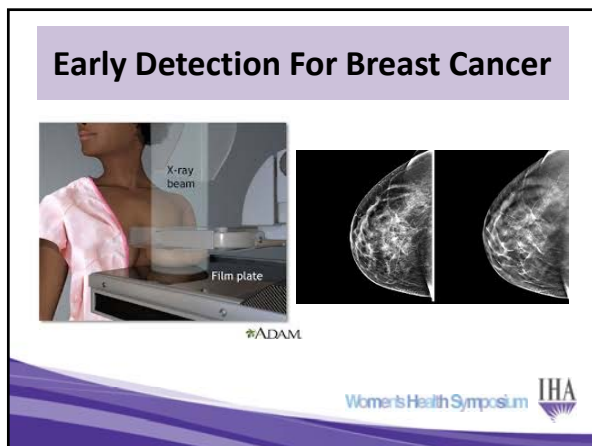
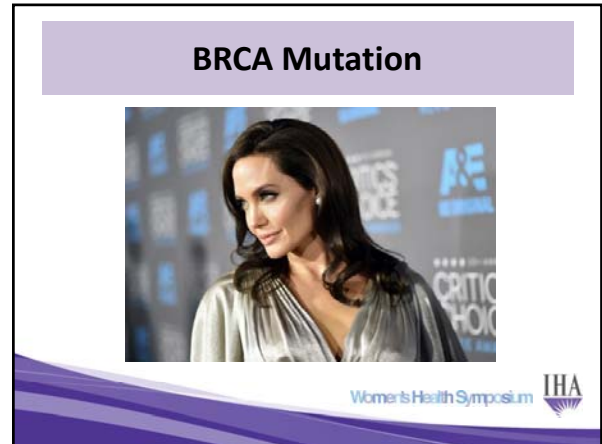
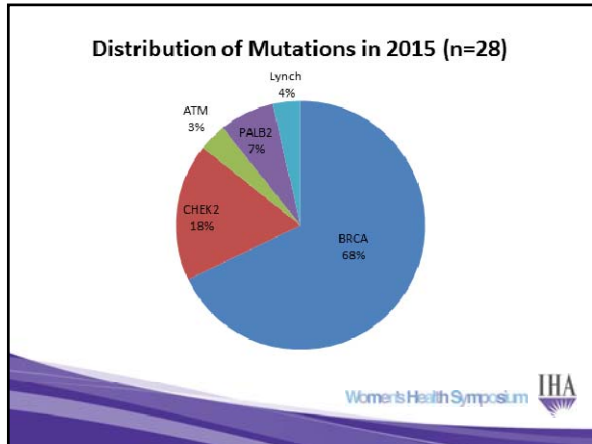
Genetic Counseling

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Patients Seen in 2015 (n=287)

Result	Percentage
Negative	57%
VUS (Variant of Uncertain Significance)	11%
No testing	14%
Pending	8%
Positive	10%

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Life Style Modification



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Life Style Modification




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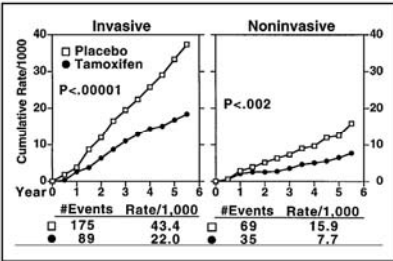
Life Style Modification






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Chemoprevention



Invasive		Noninvasive	
Placebo	Tamoxifen	Placebo	Tamoxifen
#Events	175	69	35
Rate/1,000	43.4	15.9	7.7

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Risk reducing surgery

- Highest risk group
- Removes "all" breast tissue
- Nipple/areolar complex can be preserved *
- Multiple reconstructive options
 - Implant based
 - Soft tissue reconstructions

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Risk reducing surgery

- Excellent cosmetic results
- Still need clinical exams because not all of breast tissue is removed
- Major surgery
- Optimize health prior to surgery
 - Diet and exercise
 - Tobacco cessation
- Plan for 6-8 week recovery

QUESTIONS?

Thank you for coming!