2017

Breast Cancer Screening - Helping Patients Choose

Fran Riley
The University of Vermont

Helping Patients Choose
Breast Cancer Screening and Imaging

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MS3

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Breast Cancer Screening

Many patients know about breast cancer screening

However, many questions have been raised:

- Do I need to be screened if I have no risk factors?
- What about radiation?
- What about false positives? (What is a false positive)
- Breast density?
- When should I start? (UVM radiology vs Family medicine send out letters on different schedules – every year vs every 2 years

Even different professional associations differ on recomendations (eg. Start at 40yo, screen every year vs start at 50, screen ever 2 years)

This can be confusing for patients, possibly undermining the importance of screening

Public Health Cost

- Goal of breast cancer screening – detect breast cancer early, where treatment is more effective and less expensive

- “In 2010, the cost of treating breast cancer was about $16.5 billion in the United States — higher than any other type of cancer. This is expected to increase to $20.5 billion by 2020.”

Nationally:

- Cumulative Cost of Treating Breast Cancer in the First 2 years after Diagnosis:

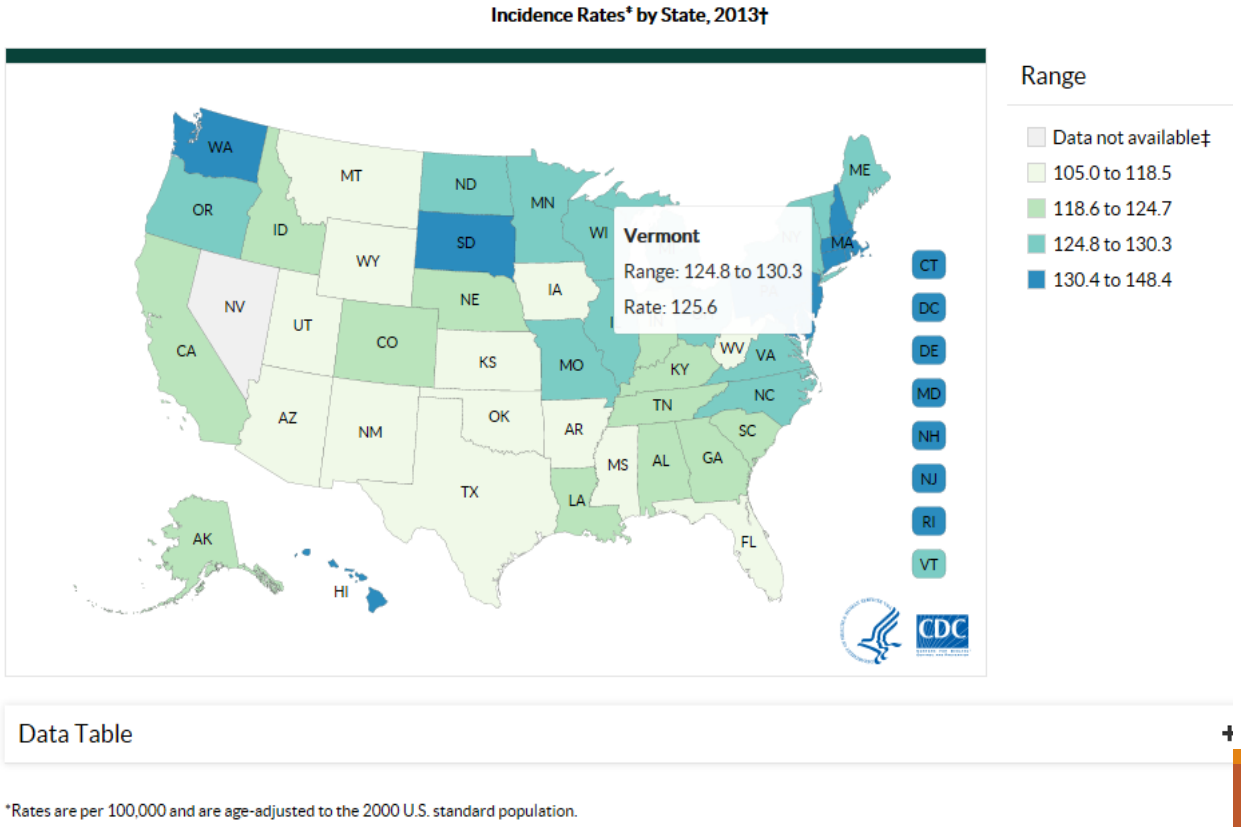
	Year 1 + 2
Stage 0	$74,160
Stage 1 or 2	$100,635
Stage 3	$165,188
Stage 4	$204,146

Blumen H, Fitch K, Polkus V. Comparison of Treatment Costs for Breast Cancer, by Tumor Stage and Type of Service. *American Health & Drug Benefits*. 2016;9(1):23-32.

- Difference between stage 0 vs 4 is approximately **$130,000 per patient.**

Public Health Costs **in Vermont**

- Incidence of breast cancer in Vermont in 2013 is 126.5/100k. The cost savings per above would multiply quickly. This does not include the non-medical costs including lost wages, caregiver burden etc.



Community Perspective

Sally D. Herschorn, MD
Vice Chair for the Patient and Provider Experience, Radiology

Division Chief and Medical Director Breast Imaging

Associate Professor of Radiology, University of Vermont

“There are multiple different screening mammography guidelines available, which is confusing for patients. Mammography studies often get significant attention in the lay press and there are many untruths that are commonly believed. Patients need reliable information about mammography screening so they can make informed decisions. This project is an information brochure for patients.”

Community Perspective

Kristine Buck, B.S. Kristine majored in Community Health at the State University of New York at Potsdam. She is the Frymoyer Community Health Resource Center's Health Educator.

“There are information about the services but there is a lack of branded, official information about the medical treatments.

This information is comprehensive, gentle, and mindful and would be a great help to our patients.”

Alan Lampson, M.L.S. - Alan has a Masters of Library Science degree from the State University of New York, University Center at Albany and he is the Lead of the Frymoyer Community Health Resource Center.

“Information on a much needed topic.

Clearly presented, written on a consumer friendly level.

Addresses the contention on the major topics of screening and screening topics”.

Intervention and Methodology

Goal – method of giving patient information, to help them understand the discussion around breast cancer screening.

Specifically:

- Address main questions regarding breast imaging (Radiation, false positives, age to start etc.)
- Use numbers to help give patients perspective on the various points of contention, so that they can make their own personal choice
- Use language helpful to diverse range of literacy levels to address as much of the population as possible

Results

Brochure

DOES SCREENING WORK?

Studies show that since screening started, **deaths due to breast cancer reduced by 38%.**

U.S. Breast Cancer Mortality Rates, Females Age 40+

1990 Rate = 73.8 per 100,000 Women

-38%

2014 Rate = 45.9 per 100,000 Women

www.cdc.gov/nchs

Screening allows breast cancer to be detected earlier, leading to better treatment and outcome. If found, breast cancer is treatable; with the latest medicine and research, **even advanced stage breast cancer can be treated**

WHAT IF I HAVE NO RISK FACTORS?

75% of patients diagnosed with breast cancer have no family history. **Screening only those with family history would deny 75% of women the opportunity for early diagnosis.** Breast cancer treatment has come a long way, for all stages of breast cancer. The purpose of screening is to administer treatment as early as possible, where it's most effective and less costly.

WHAT ABOUT RADIATION?

Radiation dose of each mammogram is about 0.3mSv . This is equivalent to the same amount a woman would get from background radiation over about 7 weeks, from TV, cell phones, sun etc. Alternately, this is approximately 6% of a chest CT. Studies show that a woman would need to endure **tens of thousands of annual screening** to develop fatal breast cancer from a radiation due to traditional mammograms (76,000 for women aged 40-49, 578,000 for women aged 70-79).

WHAT ABOUT FALSE POSITIVES?

A false positive is when the imaging results requires further testing or a biopsy, which ultimately results in a negative result (i.e. no cancer). For some, this anxiety may be significant but it's worth remembering false positives occur infrequently. **For women age 40-49, false positive occurs about 1 out of every 10 times, and reduces to 1 out of every 15 times in those age 70-79.** It can be an anxious time waiting to hear back but the anxiety when no screening is done and more advanced stage cancer is diagnosed can be worse.

"BREAST DENSITY", DOES THAT MATTER?

Women's breasts have different densities. They can be broadly categorized into 4 categories (See top left).. About 50% of women have breasts considered dense, Your breast density can found in your mammogram report. Having dense breasts increases the risk of getting breast cancer and also makes cancer harder to find on a mammogram (imagine finding a single white dot in the first image vs fourth). Women who have denser breasts should discuss screening with their doctors, and select a suitable schedule/modality. There are methods besides the standard mammogram which have been shown to be better at detecting cancer with fewer false positives for women with dense breasts. For example, mammograms detect 2-7 cancers per 1000 women screened. Additional techniques can increase that number for women with dense breasts.

Digital Breast Tomosynthesis (DBT)—3D mammography increases cancers detected by 1-2 per 1000 women screened, and has also been shown to decrease false positives.

Ultrasound—Increases cancers detected by 2-4 per 1000 women screened but increases false positives.

MRI—Increases cancers detected by more than 10 per 1000 women screened. Increases false positives but less so than ultrasound.

WHEN SHOULD I START, AGE 40 OR 50?

Women in their 40s are at lower risk compared with women in their 50s but there is no abrupt jump at 50. One in six breast cancers occurs in women age 40-49. Years of life lost to breast cancer are highest for women in their 40s.

WHAT ARE THE CONS?

Screening does take time out of your busy schedule. Being called back for further testing can be intimidating. There are financial costs to the screenings though annual screening should be covered by insurance policies. These will need to be balanced by early detection which allows improved outcomes, and lower costs (both money and time) of treating disease that is caught earlier.

THE CHOICE IS YOURS

The decisions around breast cancer screening are personal, and yours. Please ask your doctor if you have any questions or email mammoinfo@uvmhealth.org.

The heart and science of medicine.

ore information, please visit:
ww.uvmhealth.org/medcenter/
/Conditions-and-Treatments/
Mammograms.aspx

DEPARTMENT OF FAMILY MEDICINE AND BREAST IMAGING

FOR MORE INFORMATION

FAMILY MEDICINE
235 Rowell, 106 Carrigan Drive
Burlington, VT 05405

PHONE: (802) 656-4330
FAX: (802) 656-3353

BREAST IMAGING

Main Campus:

111 Colchester Avenue
Main Pavilion, Level 2
Burlington, Vermont 05401

PHONE: (802)-847-6625
FAX: (802) 847-2446

Breast Imaging is also available at 1 South Prospect St and Fanny Allen campuses.

Screening for Breast Cancer

Answers to common questions

UVMHealth.org/MedCenter

THE University of Vermont MEDICAL CENTER

A **dotphrase** has been made with the same information for patient instructions

.breastcancerscreeninginfo

Evaluation of Effective and Limitations

Effectiveness

- 5 Family physicians, 1 PA and one resident were asked for their feedback
  - All were in agreement that this is a necessary and effective way to answer questions for patients
- One patient, with high school level education was asked about her thoughts
  - She took a draft home with her to show her friends and family
- Presented brochure at Ed Sessions for Family Medicine Residents

Limitations

- Brochure has limited space to provide information
- A more rigorous method of feedback could be used to gather comprehensive feedback

Future Intervention/Projects

Official Brochure as part of formal UVMMC communication regarding breast cancer

- Reviewed by Dr. Herschorn, 7 Family Physicians at Milton Family Practice, Martha Seagrave, Community Health Resource leader and educator, as well a UVMMC Marketing and Communications team
- Planning for distribution to Family Medicine, Adult Primary Care, Ob/GYN offices within UVMMC

Info sheet for physicians

- More details on the studies quoted + references to further explain the numbers presented
- More information on studies further addressing the issues
  - Eg. Studies show that the anxiety associated with false positives is significant but reduces fairly quickly with time, and that most women would rather endure numerous false positives rather than find breast cancer late

References

1.) Death rates for breast cancer among females, by race, Hispanic origin, and age: United States, https://www.cdc.gov/nchs/data/hus/hus15.pdf#026

2.) Monroe, R. (n.d.). Radiation Dose Chart. Retrieved April 10, 2017, from https://xkcd.com/radiation/

3.) End the Confusion, Patient Resources: End The Confusion. Retrieved April 27, 2017, from https://www.sbi-online.org/endtheconfusion/PatientResources.aspx

4.) Center, U. M. (2016, November 02). Screening Mammography: Ending the Confusion. Retrieved April 27, 2017, from https://medcenterblog.uvmhealth.org/radiology/screening-mammography-ending-the-confusion/

5.) Blumen H, Fitch K, Polkus V. Comparison of Treatment Costs for Breast Cancer, by Tumor Stage and Type of Service. *American Health & Drug Benefits*. 2016;9(1):23-32.

6.) Breast Cancer Rates by State. (2016, July 19). Retrieved April 27, 2017, from https://www.cdc.gov/cancer/breast/statistics/state.htm

7.) "Breast Density: How to Inform and Educate your Patients". Presentation for Family Medicine Grand Rounds. Dr. Sally Herschorn, M.D. April 3 2017

8.) "What is Dene Breast Tissue?". Retrieved April 27, 2017, from http://www.areyoudense.org/resources

Interview Consent Form

Interview Consent Form – UVMMC Breast Cancer Screening Information Brochure

Thank you for agreeing to be interviewed. This project is a requirement for the Family Medicine clerkship. It will be stored on the Dana Library ScholarWorks website. Your name will be attached to your interview and you may be cited directly or indirectly in subsequent unpublished or published work. The interviewer affirms that he/she has explained the nature and purpose of this project.

The interviewee affirms that he/she has consented to this interview. Yes _____ / No _____

If not consenting as above: please add the interviewee names here for the department of Family Medicine information only. Name: _____