

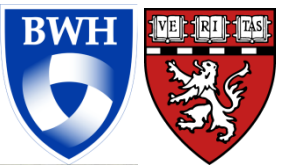
# **Cancer Screening 2025: The Role of Shared Decision-Making**

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# Leigh Simmons, MD

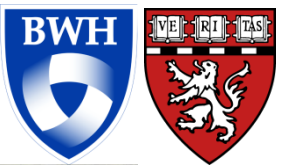


- Vanderbilt University School of Medicine
- Medicine Residency at Mass General
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  - Clinical focus: General Internal Medicine
  - Research focus: Shared decision making
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Practicing PCP at Internal Medicine Associates, MGH



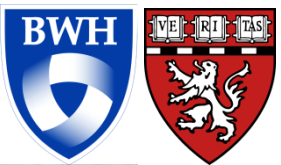
# Disclosures

- Since 2020, Dr. Simmons has provided expert witness consulting for the US Department of Justice on cases regarding cancer screening at federally qualified health centers



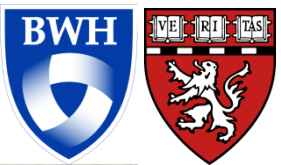
# Objectives

- Review a framework for conducting shared decision making and its application to cancer screening decisions
- Share 4 case vignettes to:
  - Highlight updates in screening for common cancers
  - Share insights on navigating common challenges in shared decision making for cancer screening decisions
  - Discuss cancer screening for older adults



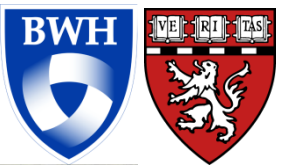
# Lung Cancer Screening Case

- 74yo woman has an Annual Wellness Visit. She has a good functional status and is treated for polymyalgia rheumatica and hypertension. She smoked starting at age 15 and still smokes lightly; ~ 50 pack-years. Her husband died of COPD last year.
- She had not seen a doctor regularly until age 72, when she joined your practice as a new patient.
- You have been planning to address lung cancer screening with her, in addition to usual counseling about smoking cessation.



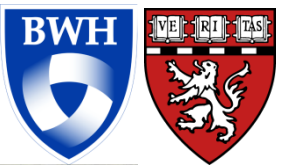
# Lung Cancer Screening Case

- She is hesitant to engage in the discussion. *“I really don’t think I want to do this.”*
- You probe a bit more, asking if there is something she is concerned about. *“No, I just don’t know what to do, I don’t like tests.”*
- You give her a paper decision aid and encourage her to share this with her daughter who brings her to appointments. You mention this once more at the next annual, and she again declines the testing. You continue to encourage complete smoking cessation.



# Lung Cancer Screening Case

- The next year, she presents with fatigue and a worsening cough. Ultimately diagnosed with metastatic non-small cell lung cancer.
- You review your notes from prior visits: *“We also discussed doing a lung cancer screening test because she does qualify. I again shared with her the AHRQ decision aid on this testing and she will review it. She does not feel ready to decide on this yet.”*



# Shared Decision Making (SDM)

Interactive process between patient  
(and family) and clinician(s)

- Engage patient in decision making
- Accurate information about options and outcomes
- Tailor treatments to patient's goals and concerns





# When to Use Shared Decision Making?

- **Effective care**

- Benefit to harm ratio high
- Strong evidence base supports care
- All with need should receive it



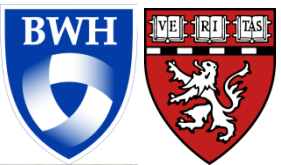
SDM  
Sweet  
Spot

- **Preference sensitive care**

- Evidence supports more than one approach (or limited evidence)
- Options involve significant trade-offs
- Personal goals, preferences, and life circumstances should drive decisions
- Most cancer screening decisions are in this category!

# SDM and Cancer Screening

- Increasingly, guidelines recommend “shared decision making”
- SDM can be useful when the best action differs from patient to patient
- But if clinicians and patients are not prepared with time and tools to collaborate on decision, true SDM doesn't happen



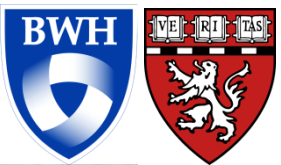
# Lung Cancer Screening



- Updated guidelines in March 2021
- Screening recommended with low dose CT scan, done annually
- Specific criteria for inclusion
  - Age 50-80
  - Current or former smoker (quit within last 15 years)
  - **20 pack-year smoking history**
  - Asymptomatic
- Exclusion criteria:
  - **Condition (s) that limits life expectancy or ability to have curative surgery** (often, this is advanced COPD)
- Shared decision making was baked into CMS guidelines; use of a decision aid and documentation of SDM conversation required for reimbursement for initial scan

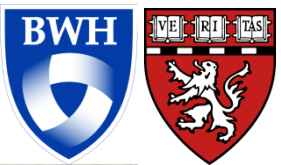
# Lung Cancer Screening

- Benefits
  - Reduces chances of dying from lung cancer
  - Possibility of finding other diseases during screening
- Harms
  - False alarms: worrisome initial results but testing does not show cancer
  - Biopsy complications
  - Radiation exposure
  - Costs of subsequent tests and treatment



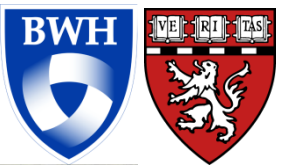
# Lung Cancer Screening Case

- Best practices for using decision aids:
  - Set aside time for a discussion, most decision aids need conversation and guidance
  - It might take up the whole visit, and that is ok
  - Important to understand reasons patients DO and DON'T want the testing, and very important to document reasons (especially if the testing is declined)
- The patient later told me, “I knew I had lung cancer. How could I not after all those years of smoking? I just didn't want to find out yet.”



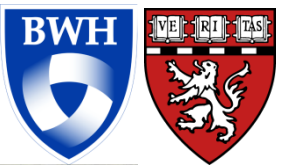
# Colon Cancer Screening Case

- 70yo woman in generally good health (new diagnosis of prediabetes). Had colonoscopy at age 50, no polyps; colonoscopy again at age 60, no polyps. No family history of polyps or colon cancer, or any significant cancer history.
- She is here for annual examination and to review preventive care.



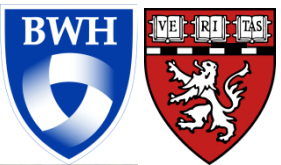
# Colon Cancer Screening Case

- You note that she is now due for her next test.
- She rolls her eyes, “I thought I was DONE with colonoscopies!”
- What next? You discuss FIT testing, Cologuard, and repeating her colonoscopy. You also note that CMS recently approved coverage for CT colonography for screening for average risk patients.
- She chooses Cologuard.



# SDM Frameworks

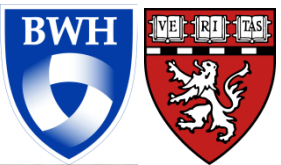
- Can be supported by the 3-talk model
  - **choice talk:** *options are available*
  - **option talk:** *more detailed information about options*
  - **decision talk:** *considering patient preferences and deciding what is best*
- Decision aids, if quality ones are available, can be introduced during discussion
- Clinicians should **absolutely** make a recommendation, after informed patient preferences are elicited





# Colon Cancer Screening

- CRC screening discussions particularly benefit from an SDM approach tailored to patient preference and risk factors
- Studies suggest that when patients are given a choice on CRC tests, they will opt for testing of some type. If only given option of colonoscopy, they are less likely to be tested
- “The best test is the one that gets done!”
- Considerations for SDM conversation:
  - Overall health and tolerance of colonoscopy prep
  - Individual factors that warrant endoscopic screening rather than stool testing (IBD, or FH of polyps or cancer)
  - As of Jan 2023, federal statutory law went into effect requiring insurers to cover fully a colonoscopy ordered following abnormal FIT or Cologuard - no cost-sharing allowed
  - Miller DP et al. 2018.



# Colon Cancer Screening

**UCLA Health**

**PREVENTIVE CARE**

## PICK A TEST, GET IT DONE

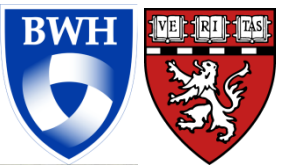
COLON CANCER SCREENING OPTIONS

Colon cancer is highly preventable and treatable. Yet more than 140,000 people are diagnosed with—and more than 50,000 people die from—colon cancer each year in the United States. The key to improving these statistics is to ensure that every person completes a routine colon cancer screening test, which can stop the disease before it starts. The following graphic compares the available screening tests. UCLA Health physicians recommend patients have a colonoscopy or complete a FIT Kit.

	PROCEDURES & X-RAY TESTS			HOME TESTS	
	COLONOSCOPY <b>**RECOMMENDED</b>	FLEXIBLE SIGMOIDOSCOPY	VIRTUAL COLONOSCOPY	FIT <b>**RECOMMENDED</b>	COLOGUARD
<b>WHAT IS IT?</b>	The patient is sedated so a doctor can examine the inside of their colon for precancerous polyps. Bowel prep is required.	A physician examines the bottom portion of the patient's colon for polyps. Sedation is not always needed. Bowel prep is required.	This X-ray test uses a CT scan to inspect the colon's lining for polyps. Patient's must still prep their bowels the day before.	A stool-based Fecal Immunochemical Test (FIT) can be performed at home and sent to a lab, which looks for trace amounts of blood.	Stool is collected at home and sent out for testing. The study looks for blood or DNA markers associated with colon cancer.
<b>HOW MUCH DOES IT COST?</b>	Varies by insurance. Screening tests must be covered, and are less expensive than diagnostic tests.	Varies by insurance. Screening tests must be covered, and are less expensive than diagnostic tests.	Varies by insurance. This procedure is subject to an insurance deductible, as well as physician and facility fees.	Low cost option	Varies by insurance. Some plans cover the test, but others do not.
<b>WHEN SHOULD IT BE REPEATED?</b>	Every 10 years, if normal	Every 5 years, if normal	Every 5 years, if normal	Annually	Every 3 years, if normal
<b>WHERE IS IT PERFORMED?</b>	Outpatient surgical center or hospital	Outpatient surgical center or hospital	Outpatient surgical center or hospital	The patient's home	The patient's home
<b>ARE THERE ANY RISKS OR NEGATIVES?</b>	Complications are rare but include bleeding, infection and bowel wall injury.	Only the bottom portion of the colon is examined.	A CT scan cannot detect small polyps. If any polyps are found, colonoscopy is required.	No physical risks. A positive test means that a diagnostic colonoscopy is required.	No physical risks. Like FIT, a positive test means that a colonoscopy is required.
<b>WHO IS A GOOD CANDIDATE FOR THIS TEST?</b>	Most people are good candidates. This test is the best way to find and remove polyps early.	Someone who cannot be sedated but wants to find polyps.	This test is OK if colonoscopy is not an option.	Great option for people hesitant about colonoscopy, but it must be performed annually.	FIT is UCLA Health's preferred stool-based test.

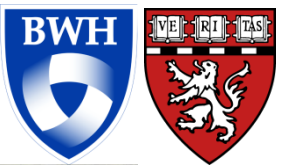
[UCLAHEALTH.ORG/COLON-CANCER-SCREENING](http://UCLAHEALTH.ORG/COLON-CANCER-SCREENING) | 1-800-UCLA-MD1 | 1-800-825-2631

- USPSTF has age-based guidelines:
- Screening between ages 50-75: A grade
- Screening between ages 45-49: B grade
- Selectively offering screening for patients ages 76-85: C grade (perfect opportunity for using shared decision making)
- Colonoscopy, FIT, and Cologuard all reasonable and commonly used (flex sig, CT colonography less so)



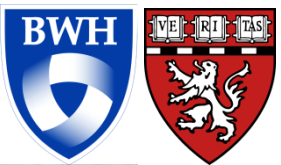
# Breast Cancer Screening Case

- 45yo woman presents in May 2024 for routine new patient visit. She has a family history of breast cancer in her maternal grandmother at age 82. Her mother and her maternal aunts have not had breast cancer. She had a diagnostic mammogram at age 38 for a breast lump, biopsied and was a fibroadenoma (later removed). No mammograms since.
- Gail Model 5 year risk is 1.0% (1.0% avg), lifetime risk is 9.5% (11.9% avg)



# Breast Cancer Screening Case

- She asks if she should initiate mammograms now.
- The USPSTF has recently updated guidelines on breast cancer screening
- *As of April 30, 2024, all women should be screened for breast cancer, at least every 2 years, starting at age 40 and continuing through age 74 – **B grade recommendation***
- ***So as of now, we should be offering mammograms to all our women patients starting at age 40, and conduct them at least every 2 years***



# Breast Cancer Screening



- USPSTF now recommends biennial mammogram for women age 40-74
- Guidelines from cancer and imaging societies recommend yearly mammograms in many cases

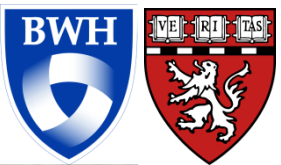
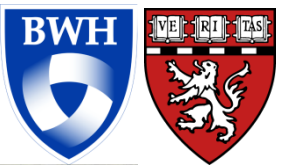


Photo: Leigh Simmons

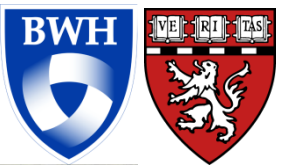
# Breast Cancer Screening Case

- What about women with dense breasts seen on mammogram?
  - There is limited data to guide us on this clinical scenario
  - About 50% of women will receive a mammogram with a “dense breast” report
  - If the patient has a family history of breast cancer, her risk increases significantly, and screening with MRI may be indicated, especially if lifetime risk is estimated at 20% or higher
  - It can be helpful to use the Tyrer-Cuzick Risk Assessment Calculator, which takes into account breast density, to determine 10-year and lifetime risk of breast cancer: <https://ibis-risk-calculator.magview.com/>



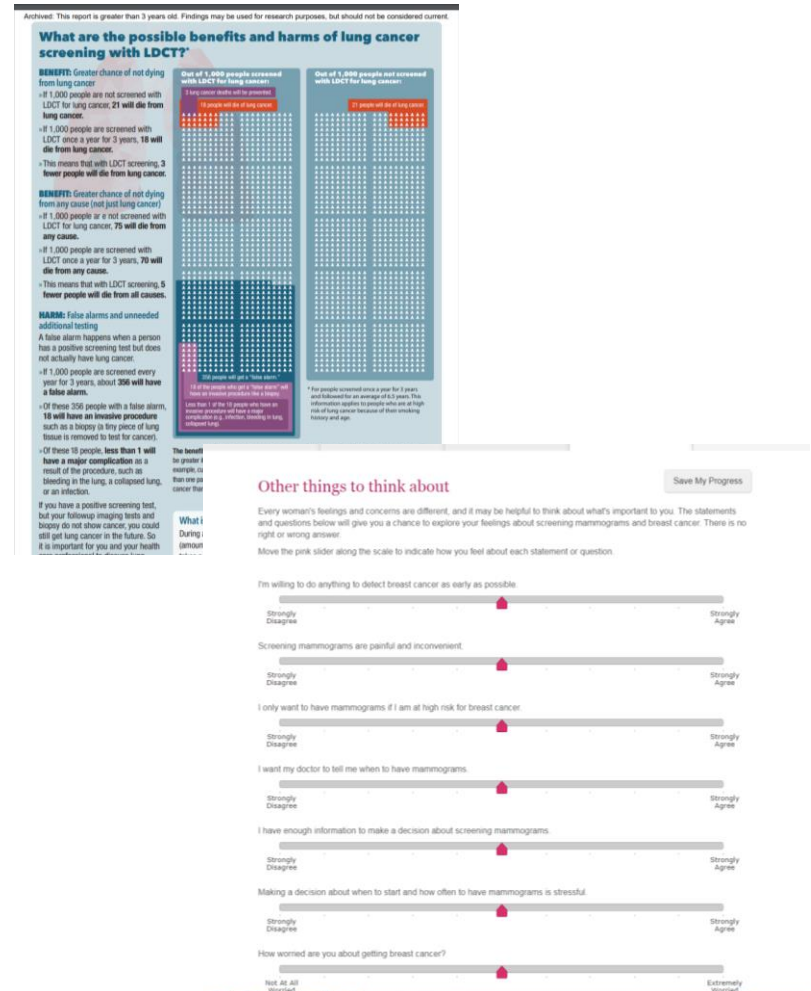
# Breast Cancer Screening Case

- Who should be referred for genetic counseling for BRCA 1/2 mutation testing?
  - Women who have a personal or family history of breast, ovarian, tubal, or peritoneal cancers
  - Women who have ancestry associated with BRCA 1/2 gene mutations (Ashkenazi Jewish – prevalence of BRCA mutations is 2.1%)
  - Use one of several tools available (Ontario Family History Tool, Manchester Scoring System, Pedigree Assessment Tool, IBCIS instrument)



# Decision Aids

- Tools designed to help people participate in decision-making
- Available in different media (online, DVD, print)
- Provide information on the options
- Help patients clarify and communicate their goals and treatment preferences





# Evidence for Decision Aids

**2024 Cochrane Systematic Review contains 209 RCTs, 107K patients,  
and 71 different topics studied**

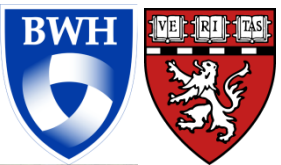
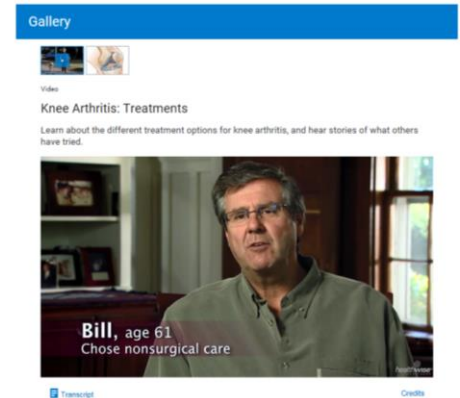
**Decision aids:**

**Improved decision quality...**

- **12%** absolute increase in knowledge
- **2-fold** improvement in accurate risk perception
- **2-fold** improvement in match between values & choices

**Less decisional conflict**

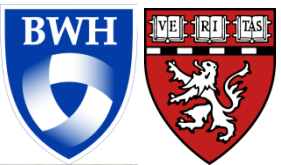
**More patient engagement**



Stacey et al. Cochrane Database of Systematic Reviews, 2024

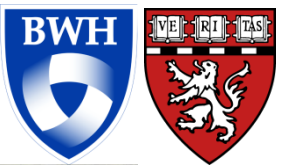
# Prostate Cancer Screening Case

- 58yo man who has a family history of prostate cancer (father was diagnosed and died of it at age 80) presents for annual check up
- He had a PSA checked once at age 50 because of his father's history; PSA was low.
- Considering revised guidelines recommending SDM, you plan to discuss PSA testing with him again at today's visit



# Prostate Cancer Screening Case

- Important themes to emphasize in discussion:
  - Personal risk factors for prostate cancer (age, family history, black race)
  - Limitations of the PSA testing and need for subsequent testing (MRI, biopsy) to make a diagnosis of prostate cancer
  - Treatments for prostate cancer and the common side effects of these treatments
- *He shares that he watched his father die a painful death from prostate cancer metastases shortly after diagnosis. He would like the chance to know about the disease and treat it early, even if an early diagnosis wouldn't necessarily lengthen his life.*



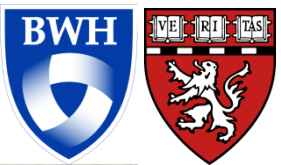
# Prostate Cancer Screening



- “Classic” case for using shared decision making framework
- PSA testing carries risk of overdiagnosis without significant benefit on prostate cancer morbidity and mortality
- 2017 USPSTF: reversal of the 2012 guidelines that recommended **against** PSA-based prostate cancer screening
- In 2017, SDM for PSA-based testing was recommended for patients 55-69
- Three other guideline generating groups have not issued new guidelines since 2013, though the ACS, AUA, and ACP do recommend screening with PSA beginning at age 50-55.

# Cancer Screening for Adults > 75

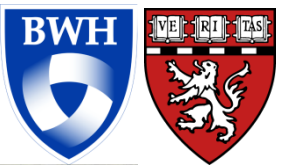
- Cancer incidence increases with age
- Unknown if the benefits of cancer screening outweigh the dangers for adults over age 75
- About 50% of adults over age 75 continue to be screened for cancers
- Many reasons for this:
  - path dependence of health care organizations (mammogram reminders continuing indefinitely)
  - pushes for screening younger people can lead some older people to continue screening also
  - physicians find having conversations about stopping screening difficult



Schonberg MA et al. 2020.

# Cancer Screening for Adults > 75

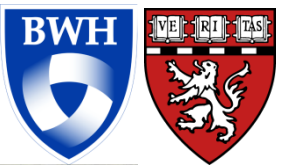
- Scripts can help; generally best to avoid “you may not live long enough to benefit” and rather emphasize that the screening tests “may not help you live longer” (Schoenborn N et al 2017)
- Try scripts that are brief, clear, and customizable
  - *“Guidelines recommend that I talk with women aged 75 and older about whether to have a mammogram. Since breast cancers on mammograms tend to be slow growing, it can take years before the cancer would affect your health. Meanwhile, a mammogram may lead to having tests and treatments now that may cause harm. What are your thoughts?”*
  - *“Since having a colonoscopy is unlikely to help you live longer and there are risks, I recommend we transition away from colonoscopies, but it is your decision. What are your thoughts?” “If you develop new symptoms like blood in your stool or changes in your bowel movements, we can get a colonoscopy then, but I do not think it makes sense to go looking for trouble now.”*



Schonberg MA et al. 2020.

# SDM Implementation Discussion

- Clinician training
- Decision aid distribution
- Workflow support for shared decision making



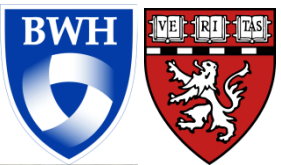


# HEALTH DECISION SCIENCES

— *Let's Decide Together* —

Support conversations that draw on  
expertise of  
patients and families, care team, and  
best clinical evidence to ensure  
informed, patient-centered decisions

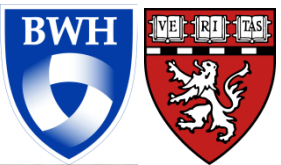
<https://mghdecisionsciences.org/>





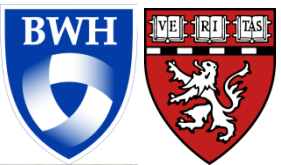
# Decision Aid Links

- Lung Cancer
  - [AHRQ https://effectivehealthcare.ahrq.gov/decision-aids/lung-cancer-screening/patient.html](https://effectivehealthcare.ahrq.gov/decision-aids/lung-cancer-screening/patient.html)
  - Should I Screen? U of Michigan  
<https://shouldiscreen.com/English/home>
- Colon Cancer
  - Healthwise  
<https://www.healthwise.net/ohridecisionaid/Content/StdDocument.aspx?DOCHWID=aa69121>



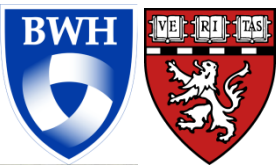
# Decision Aid Links

- Breast Cancer
  - Women older than 75: <https://www.bidmc.org/-/media/files/beth-israel-org/research/research-by-department/medicine/general-medicine-research/research-faculty/decision-aid-758412020.pdf>



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# Follow-up Questions

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