Lung Cancer Screening Counseling and Shared Decision Making Visit

Cleveland Clinic Experience

Early Experience

- **Ineligible patients** being referred
  - Age, smoking history, symptomatic, cost of scan, co-morbidities, did not want follow-up
- **Patient knowledge** of benefit, harms, and process unclear
- **Communication** was not timely
- Communication at times was misleading
- Management of **nodules** was not consistent with care path
- **Compliance** with annual exam was poor
- Management of **other findings** was variable
- Consistency of **smoking cessation** guidance was unclear

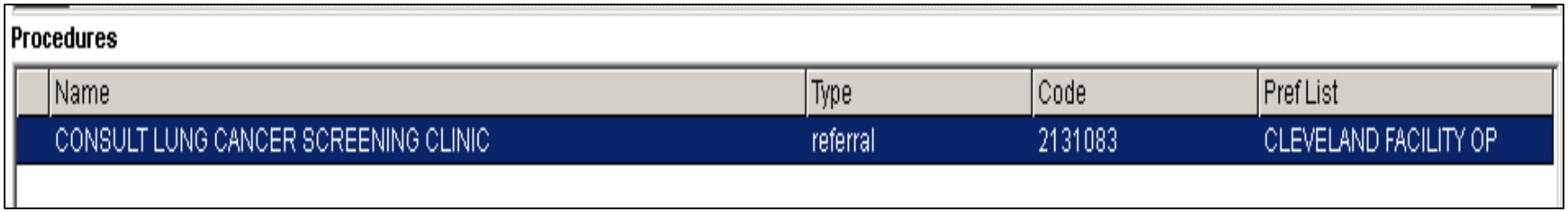
CMS Determination

- Coverage for low dose CT screening includes only the **risk group studied in the National Lung Screening Trial** (ages 55-77, smoker of at least 30 pack-years, has been a smoker within the past 15 years).
- All patients must have a **visit to discuss the benefits and harms of screening**, evaluate the eligibility for screening, and document variables related this visit. This visit cannot be a part of a visit for another indication.
- All screening programs must **submit detailed data** about patient eligibility, and screening test performance to a national registry.
- Radiologists interpreting the screening exams must be **experienced readers** of this type of exam.
- Facilities offering screening programs must perform screening with **low-dose techniques, use a structured report**, and have **smoking cessation interventions** available.

Cleveland Clinic Screening Program

	Initial Plan	Evolution
Who to screen	NLST, Risk predictor	NLST to age 77, USPSTF
How to identify	Education, EHR	Education, EHR
How to schedule	Test order, Smartset	Consult order, Coordinate
Shared decision making	**Ordering provider**	**Screening program**
Scan details	1.5 mSv CTDLP	3.0 mSv CTDIVol
Communicate results	Internal, provider	LungRads, program
Nodule evaluation	Carepath	LungRads, Carepath
Management of findings	Ordering provider	Screening program
Annual follow-up	Ordering provider	Screening program
Smoking cessation	Ordering provider	Screening program
Data collection	Registry	Registry, National, Automation

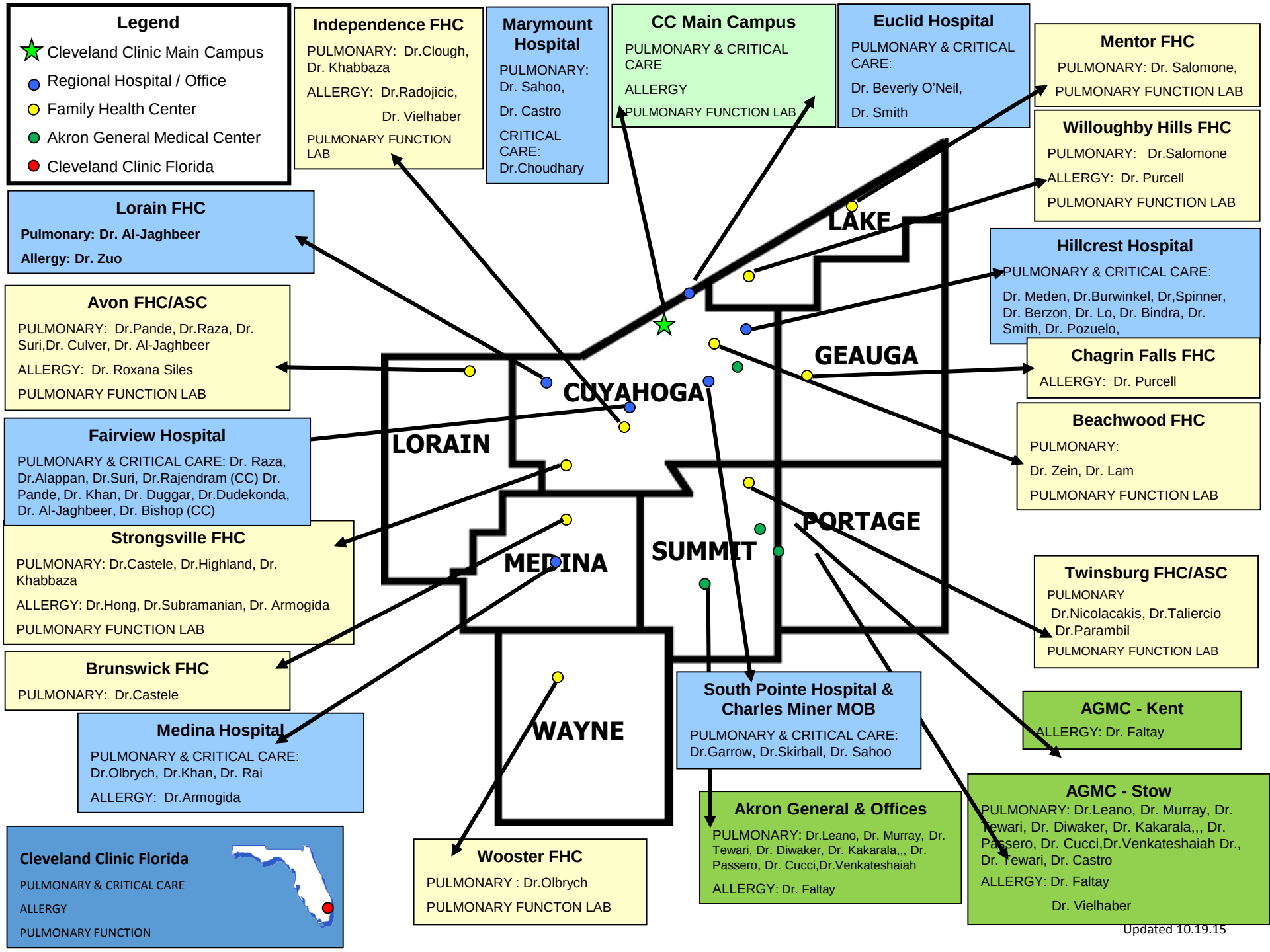
Cleveland Clinic Screening Program



Procedures

Name	Type	Code	Pref List
CONSULT LUNG CANCER SCREENING CLINIC	referral	2131083	CLEVELAND FACILITY OP

	Prompt	Answer
1.	The patient age is 55-77 years old?	
2.	This patient has a smoking history of 30 pack-years or more?	
3.	The patient has been a smoker within the past 15 years?	
4.	Does consulting provider have CCF Epic access?	Yes / No/Unknown
5.	This patient has not had a chest CT scan over the past year?	

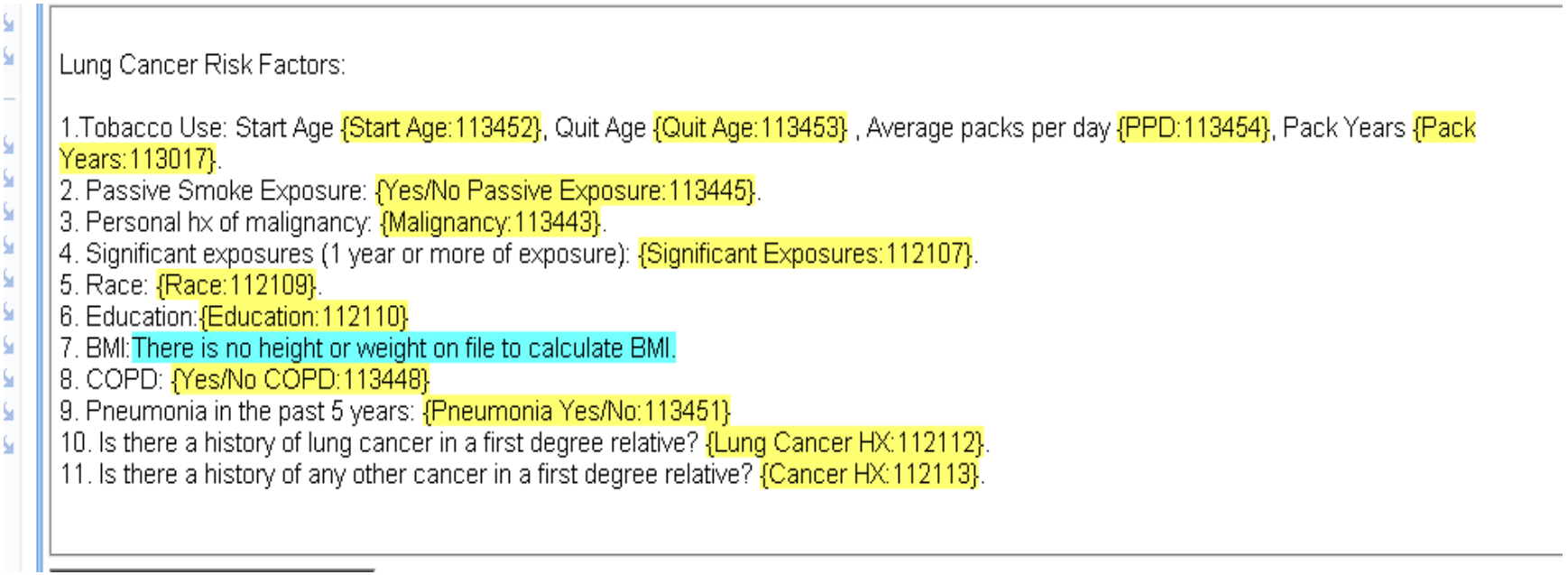


Updated 10.19.15

How We Conduct the SDM Visit

To Consider	Our Approach
Assess patient eligibility	• Age, smoking, symptoms, general health reviewed
Overview of benefit and harms	• Narrated slide show developed
Use of decision aid	• Shouldiscreen.com
Prepare patient for results	• Discuss likely findings • Stress annual screening • Decide how to communicate results
Incorporate smoking cessation counseling	• Connect to local resources • Train personnel
Documentation and reporting	• Templated note with extractable elements

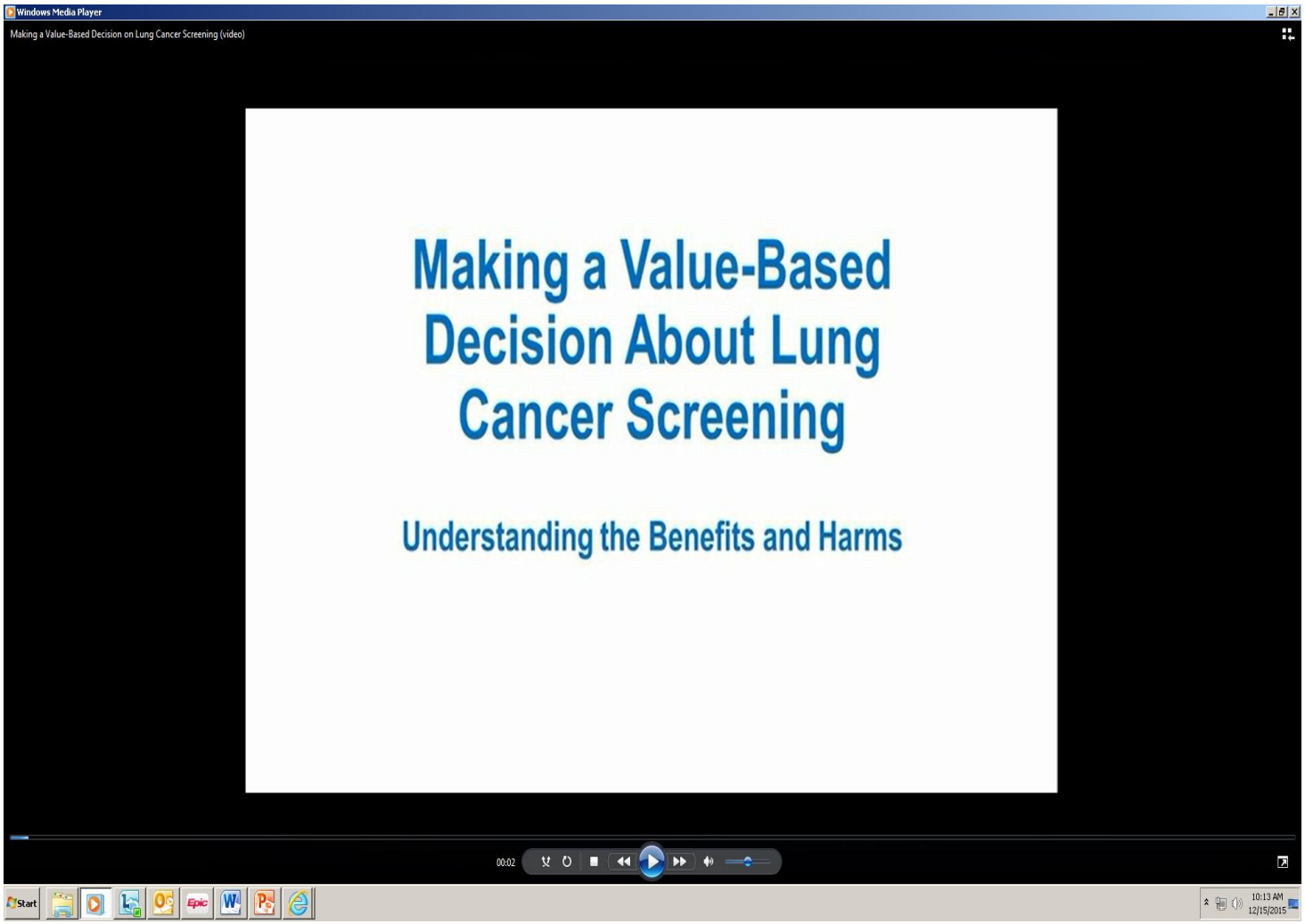
How We Conduct the SDM Visit



Lung Cancer Risk Factors:

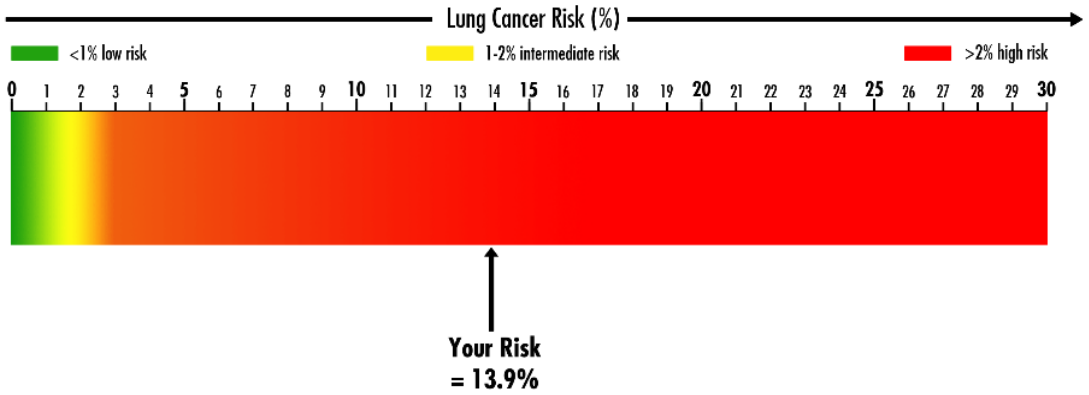
1.Tobacco Use: Start Age {Start Age:113452}, Quit Age {Quit Age:113453} , Average packs per day {PPD:113454}, Pack Years {Pack Years:113017}.
2. Passive Smoke Exposure: {Yes/No Passive Exposure:113445}.
3. Personal hx of malignancy: {Malignancy:113443}.
4. Significant exposures (1 year or more of exposure): {Significant Exposures:112107}.
5. Race: {Race:112109}.
6. Education:{Education:112110}
7. BMI:There is no height or weight on file to calculate BMI.
8. COPD: {Yes/No COPD:113448}
9. Pneumonia in the past 5 years: {Pneumonia Yes/No:113451}
10. Is there a history of lung cancer in a first degree relative? {Lung Cancer HX:112112}.
11. Is there a history of any other cancer in a first degree relative? {Cancer HX:112113}.

How We Conduct the SDM Visit

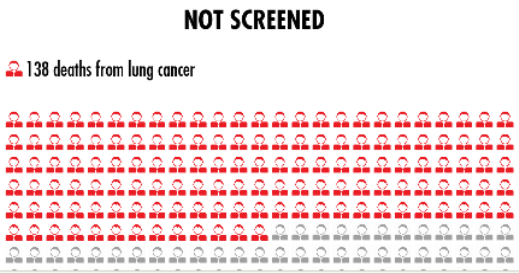


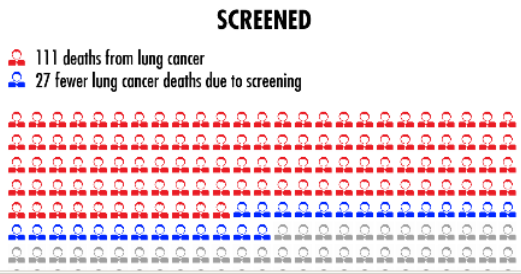
How We Conduct the SDM Visit

The chance of you developing lung cancer in the next 6 years is 13.9%. Talk to your doctor about the option to screen or not to screen as s/he will understand your situation best.



Compared to other people like you, there will be 27 fewer deaths out of 1000 in the next 6 years if you get screened.





How We Conduct the SDM Visit

Prior Imaging:
CT: {CT Yes/No:112101}.
CXR: {CXR Yes/No:112103}.

ASSESSMENT and RECOMMENDATIONS:
Six year risk for lung cancer: {Risk for Lung Cancer:113449}

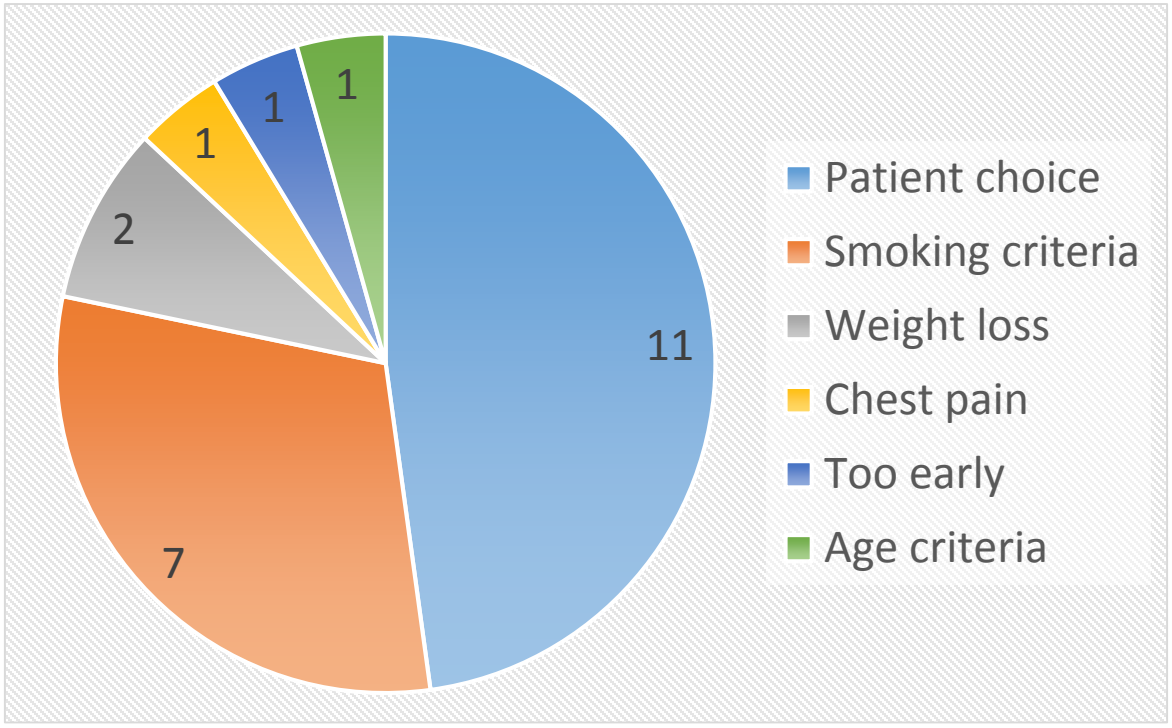
I have determined that the patient is eligible for a low dose CT based on age, absence of signs or symptoms of lung cancer, and total pack years: {YES/NO:112098}.

The patient and I engaged in shared decision making, including the use of one or more decision aids, to include benefits, harms, follow-up diagnostic testing, over-diagnosis, false positive rate, and total radiation exposure. The patient understands and feels comfortable with it: {YES/NO:112099}.

The patient was counseled on the importance of adherence to annual LDCT lung cancer screening, impact of comorbidities and ability or willingness to undergo diagnosis and treatment. The patient understands and feels comfortable with it:{YES/NO:112100}.

Impact of the SDM Visit

- 423 patients have had a SDM visit
- 23 (5.4%) patients did not go on to have the LDCT



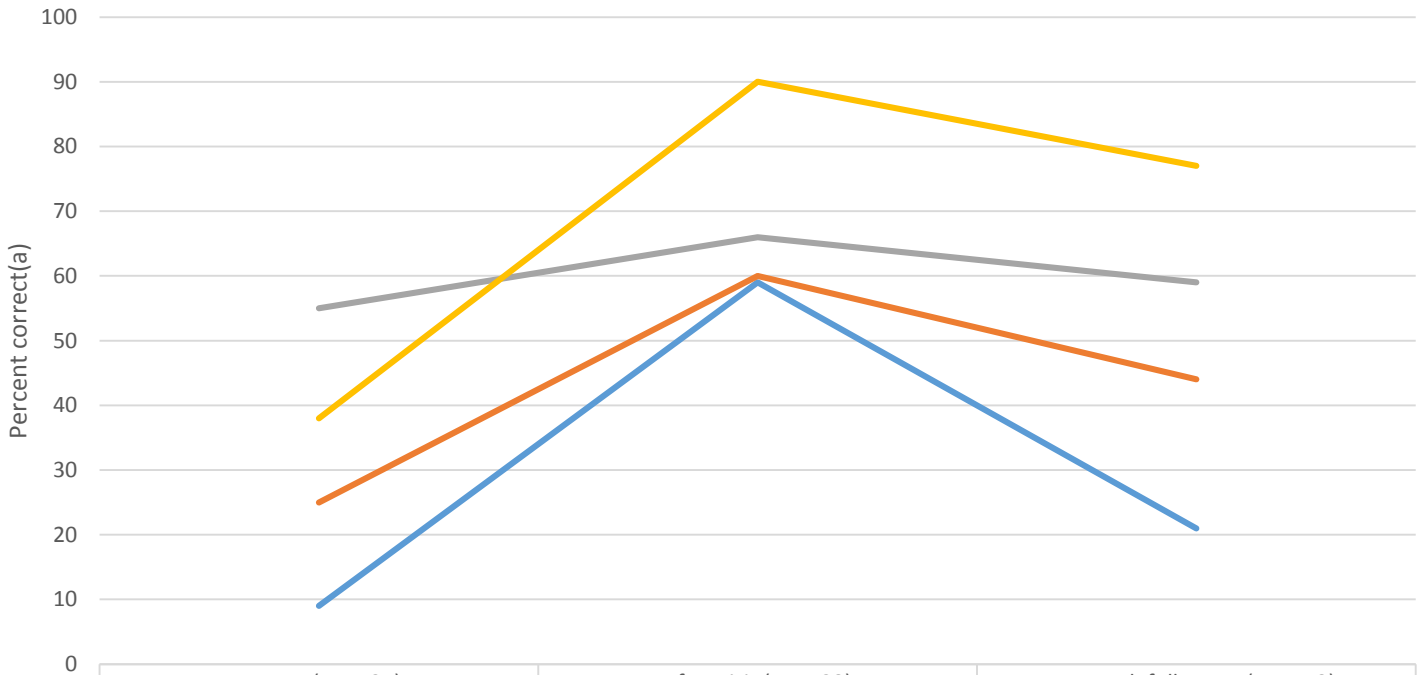
Mazzone, Chest 2017.

Impact of the SDM Visit

- One hundred twenty-five patients completed the **pre-visit survey**, 122 completed the **post-visit survey**, and 113 completed the **1-month post-visit survey**.
- The patients were a mean age of 64.4 years (range, 55-77 years), 33.9% were women, 45.2% were active smokers, the mean pack-years smoked was 53.0 (range, 30-112 pack-years), and 40.3% had COPD.
- Eleven did not complete high school (8.9%), 36 were high school graduates (29.0%), 31 attended some college (25.0%), 28 were college graduates (22.6%), and 16 completed postgraduate education (12.9%).

Mazzone, Chest 2017.

Impact of the SDM Visit



	Pretest (N = 125)	After visit (N = 123)	1-month follow-up (N = 113)
Age Criteria	9	59	21
Smoking Criteria (b)	25	60	44
Benefits	55	66	59
Harm (c)	38	90	77

Mazzone, Chest 2017.

Impact of the SDM Visit

	Pre-Post	Pre-1 mo	Post-1 mo
Age	<0.0001	0.01	<0.0001
Smoking	<0.0001	<0.0001	0.006
Benefit	0.03	0.09	0.45
Harms	<0.0001	<0.0001	0.008

Mazzone, Chest 2017.

Impact of the SDM Visit

	<HS (N=11)	HS (N=36)	SC (N=31)	CG (N=28)	PG (N=16)	p-value
Benefit						
Pre	45.5	33.3	32.3	17.9	12.5	0.0812
Post	0	19.4	19.4	10.7	6.3	0.0408
1 month	27.3	13.9	12.9	7.1	12.5	0.4541
Harms						
Pre	100	69.4	54.8	50.0	50.0	0.0207
Post	36.4	11.1	6.5	3.6	6.3	0.0187
1 month	72.7	19.4	19.4	7.1	6.3	0.0027

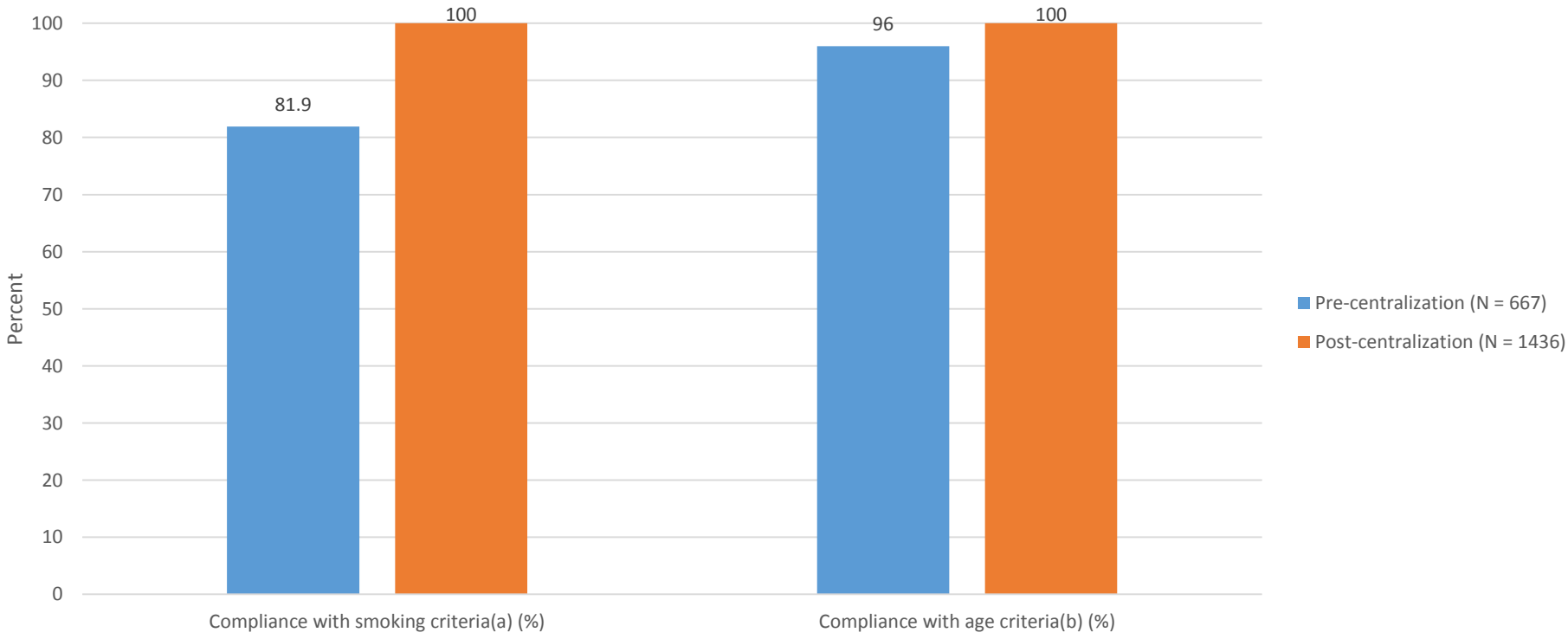
Mazzone, Chest 2017.

Impact of the SDM Visit

- The patient's assessment of the appropriateness of the presentation of benefits (mean, 2.92 +/- 0.79), harms (mean, 2.97 +/- 0.77), and the balance of benefits and harms (mean, 3.01 +/- 0.78) suggest that they believed the **messages were delivered at an appropriate level** (3 = at my level).
- Information about the individual risk-benefit balance helped patients feel **more comfortable about their decisions** (mean, 3.88 +/- 1.29; 5 = made me more comfortable).
- 66 patients who provided **comments** about the visit:
  - 57 were positive (e.g. "good presentation helped me to make an informed choice"; "Excellent! No unnecessary pressure—honest, highly intelligent, and sensitive to needs of my whole life"), and
  - 9 were negative (e.g. "information regarding harms of screening is confusing"; "boring").

Mazzone, Chest 2017.

Impact of the SDM Visit



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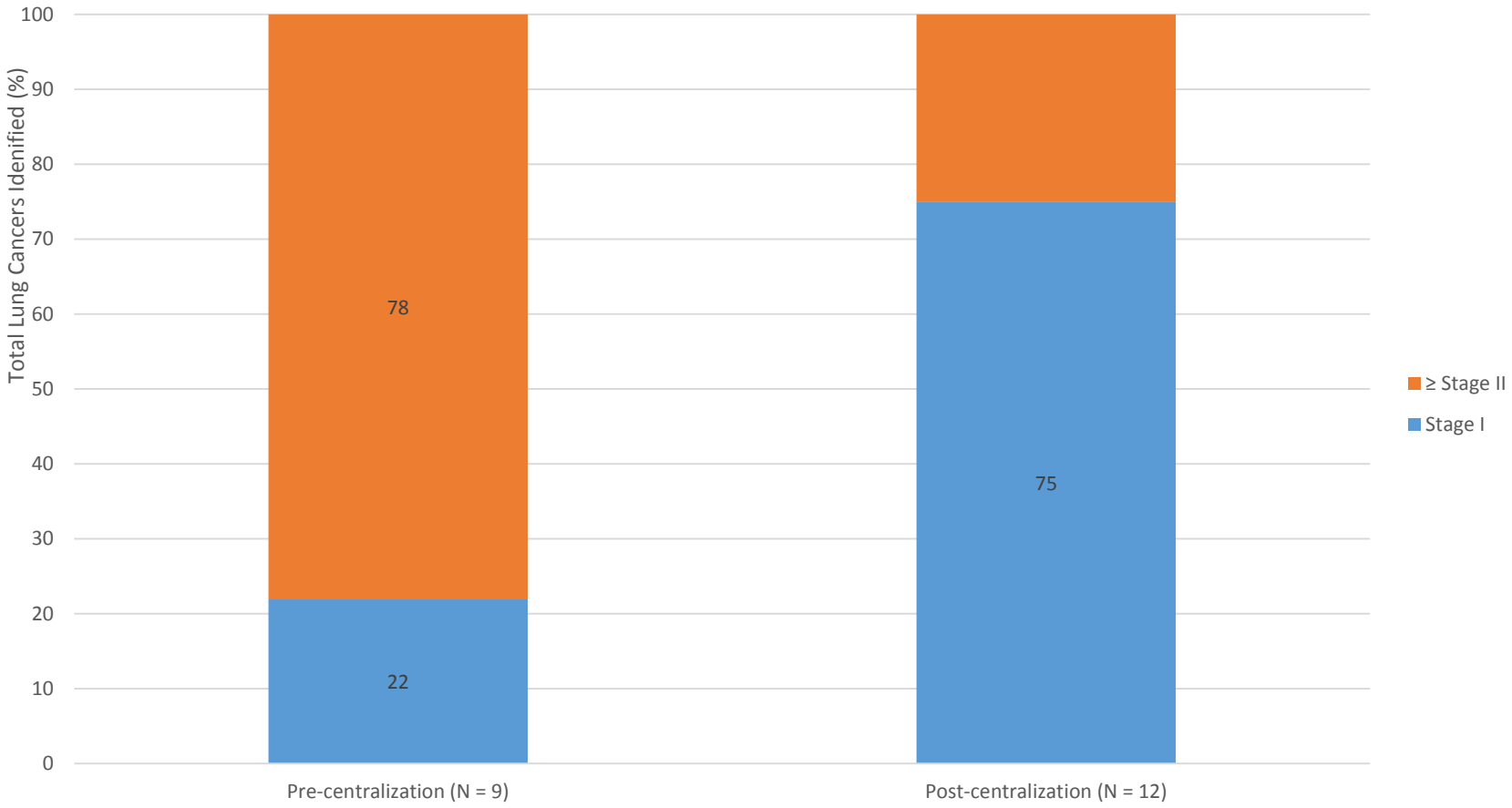

Impact of the SDM Visit

	Number	Quit at 1 year (%)	Reduced (%)
Prior to SDM visit	38	30	55
After SDM visit	38	18	55
Did not attend	54	7	16
Total	128	17	37

Summary

- One health system's experience
- Centralized program
- Patient engagement, relationship building
- Improve knowledge level at time of decision
- Improve knowledge level across education classes