Table E1:
Selected Measures from The Smoking Cessation at Lung Examination (SCALE) Collaboration [45]

Implementation Measures		
Construct	Item	Response
Patient acceptance of intervention	Did you receive smoking cessation support?	__ Yes, __No / If yes: How satisfied were you with the smoking cessation support you received: (very satisfied, somewhat satisfied, a little satisfied, not at all satisfied)
	Satisfaction with specific intervention components	[List components] responses: (very satisfied, somewhat satisfied, a little satisfied, not at all satisfied)
	Did the program meet expectations?	__ Yes, __No
	Would you recommend the program to a friend?	__ Yes, __No
Acceptance: Provider/ organization	Use of [insert name of intervention] can significantly increase the quality of our program	(strongly disagree to strongly agree)
Feasibility	Providing [insert name of study intervention in its entirety] is feasible for our Lung Cancer Screening program	(strongly disagree to strongly agree)
Organizational Priority (To be assessed before and after intervention is implemented)	Smoking cessation treatment is a top priority at this lung cancer screening site.	1. Not true, 2. Slightly true, 3. Somewhat true, 4. Mostly true, 5. Definitely true
	At this lung cancer screening site, promoting smoking cessation takes a back seat to other priorities.	1. Not true, 2. Slightly true, 3. Somewhat true, 4. Mostly true, 5. Definitely true
	Staff at this lung cancer screening site put a lot of effort into making sure that we follow smoking cessation treatment guidelines.	1. Not true, 2. Slightly true, 3. Somewhat true, 4. Mostly true, 5. Definitely true
	Staff at this lung cancer screening site think that implementation of strategies to promote smoking cessation treatment is important.	1. Not true, 2. Slightly true, 3. Somewhat true, 4. Mostly true, 5. Definitely true
	One of this lung cancer screening site's goals is to integrate best practices for smoking cessation.	1. Not true, 2. Slightly true, 3. Somewhat true, 4. Mostly true, 5. Definitely true
	Staff here really don't care about providing smoking cessation assistance.	1. Not true, 2. Slightly true, 3. Somewhat true, 4. Mostly true, 5. Definitely true
	At this lung cancer screening site, there is a big push to advise all smokers to quit.	1. Not true, 2. Slightly true, 3. Somewhat true, 4. Mostly true, 5. Definitely true
	At this lung cancer screening site, there is a big push to provide help to all smokers who are interested in quitting.	1. Not true, 2. Slightly true, 3. Somewhat true, 4. Mostly true, 5. Definitely true

	Staff at this lung cancer screening site worry that pushing smoking cessation may discourage patients from being screened for lung cancer or from coming back for follow up scans	1. Not true, 2. Slightly true, 3. Somewhat true, 4. Mostly true, 5. Definitely true

Medical Outcomes		
Construct	Item	Response
Repeat/Follow-up LDCT Screening Status	LDCT Screening Baseline or Annual Repeat:	__ Baseline, __Annual repeat
Screening results	Lung-RADS category:	__0, __1, __2, __3, __4A, __4B, __4X (and same categories with S modifier)
	Size of highest risk nodule in mm	__ mm
Diagnostic procedures and findings	(At baseline and annual repeat scans): Procedure?	__Yes, __No / If yes, procedure category: __Interval follow-up CT (__3 or 6 months, __other), __bronchoscopy, __biopsy, __surgery, __PET/CT, __Other
	(At annual repeat and interval scans): Growth of highest risk nodule:	__Stable (<2mm change in diameter), __smaller (>2mm decrease in diameter), __increase (> or = to 2mm increase in diameter), __resolved ----- (lungRADS uses >1.5 mm to define growth - should we use the same metric?)
Lung cancer diagnosis	(Proposed item at baseline and annual repeat scans): Final diagnosis following procedure:	__non-diagnostic, __lung cancer (For lung cancer diagnoses, include TNM stage and small cell lung cancer/non-small cell lung cancer), __other cancer, __alternate benign diagnosis
Death	Patient Vital Status	__Alive __Dead __ Lost to follow up __ Withdrawn from study / If dead, enter date of death: __/__/____ / Primary cause of death: __lung cancer death, __other cancer death, __other

Organizational Characteristics		
Construct	Item	Response
Location (Census Definition (2010) https://www.census.gov/ geo/reference/ua/urban-rural-2010.html)	Which of the following best describes the location of this clinic?	__Urbanized Areas (UAs) of 50,000 or more people; __Urban Clusters (UCs) of at least 2,500 and less than 50,000 people; __"Rural" (encompasses all population, housing, and territory not included within an urban area)
Volume (Screening)	Number of new (baseline) patients screened for lung cancer in the past 6 months	__ Number of new patients
Payer mix of screening participants	Please estimate the percentage of your lung cancer screening enrollees in the following insurance categories (payer mix):	__% Medicare, __% Medicaid, __% Private commercial, __% No insurance, __% Other (please specify): _____

Table E2: Sample measures relevant to smoking cessation research on PhenX website [51]	
Demographics	Ethnicity; Race; Sex and Gender; Marital Status; Current Employment Status; Current Educational Attainment; Annual Family Income
Tobacco Use	Smoking Quit Attempts; Use of Tobacco Products; Tobacco Smoking Status; Tobacco - Age of Initiation of Use; 30-Day Quantity and Frequency; Tobacco - Age of Offset of Use; Amount, Type, and Frequency of Recent Cigarette Use
Descriptive and Behavioral	Personal Perception and Knowledge of Smoking related Cancer Risk; Motives - Alcohol, Tobacco, and Other Substances - Specific – Tobacco; Substances - Lifetime Use; Depression – Adult; General Self-Efficacy - Adult Protocol; Motivation to Quit
Environment	Social Norms about Tobacco
Protocols and Assays for Tobacco Smoke Exposure	Urine Cotinine; Serum Cotinine; Exhaled CO monitoring