

# Implementing a Tribally-Engaged Lung Cancer Screening Program in Rural Oklahoma (Update)

Zsolt Nagykaldi, PhD; Mark Doescher, MD; Dorothy Rhoades, MD, MPH; Kathleen Dwyer, PhD, RN; Ann Chou, PhD, MPH  
 Brook McCann, RN; Natassia Zink, RN; Martha Howze, RN

*In partnership with the  
 Choctaw Nation of Oklahoma*






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### DISCLOSURES

- Consultant for: [None](#)
  - Speaker's Bureau for: [None](#)
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  - Honoraria from: [None](#)
  - Employee of: [University of Oklahoma HSC](#)
- I will not discuss off label use and/or investigational use in my presentation. Views expressed are my own and do not necessarily reflect those of my institution, the Choctaw Nation of Oklahoma or the funding agency.

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### Learning Objectives

- ❖ Through a pilot study example demonstrate how [evidence can be translated into clinical practice](#) for implementing a low-dose CT lung cancer screening (LCS) program in a rural/tribal community
- ❖ Explore the components and steps of [implementing](#) an LCS program that may overcome some of the [barriers](#) to increasing LCS rates in rural/tribal health systems
- ❖ Discuss how lessons learned from our pilot study may help attendees [facilitate the dissemination](#) of an LCS program in their organization

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### TEALS Planning Phase (Year-1)


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Creating a tribal community-centered **study protocol** and obtaining multiple Institutional Review Board (IRB) approvals
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Establishing a **Community Advisory Board (CAB)**, representing key LCS constituents within the CNHSA
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The CAB advises investigators on the **study planning** process and develops a Choctaw Nation-tailored LCS **patient decision-aid** for system-wide use
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Establishing and operating a **Scientific Advisory Board (SAB)** of 3 national LCS experts and 8 key study personnel
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Providing LCS care **coordinator training** through the Stephenson Cancer Center in Oklahoma City
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Mapping and analyzing the LCS care delivery process with the help of a trained primary care practice facilitator

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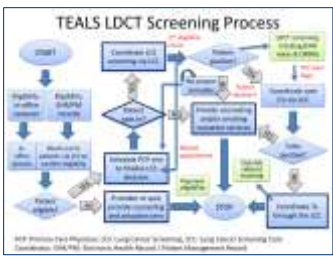
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### TEALS Pilot Study Patient Care Path

- ❖ Two mid-size primary care practice centers were selected to serve as **implementation pilot sites** (N=57 patients)
- ❖ The LCS intervention was centered on 1.5 FTE health system-wide **lung cancer screening coordinators (LCCs)** both at the clinic sites and at the health system level
- ❖ LCCs used OMNI to track services (**patient registry**)




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### TEALS Pilot Study Measures

Measures & Timing	Description of Measures	Data Sources and Collection Methods	N (sample)
<b>Patient measures at baseline and at 6 months</b>	Patient demographics and socio-economic status (SES)	Practice records and short SES survey	Planned: 50/practice N=100 <b>N=57 (actual)</b>
	Patient attitudes toward LCS Patient experience with preventive care	Attitudes survey CAHPS PCC-10 survey	
<b>Patient measures at 12 months</b>	Patient interviews on experience and satisfaction with the LCS program	Interviews with LCS completers and non-completers	10 per practice 20 total
<b>Practice measures at baseline and 12 mos</b>	Practice readiness for preventive care improvement	CPCQ survey	3 per practice 6 total
<b>System measures at 12 months</b>	System-level experience with LCS program, decision making factors, feedback	Interviews with CNHSA leadership	10 total

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## TEALS Pilot Patient Population Statistics

Demographic Characteristics	N (57)	%
Mean Age (years):	67 (55-77)	-
Sex (female):	28	49
Race :	N (57)	%
Native American/American Indian (NA/AI)	57	100
Biracial (White and NA/AI)	1	0.2
Median Annual Household Income:	N (57)	%
<\$25,000	28	49
\$25,000-\$50,000	15	26
\$50,000+	14	25
Education:	N (57)	%
High school or less	33	57
At least some college	24	43

### Smoking Statistics

- Current rate of cigarette smoking: 66% of respondents
- Number of cigarettes per day: 23+/-12 (mean/SD)
- Length of smoking: 43+/-11 (mean/SD) years
- Pack-years of smoking: 46+/- 23 (mean/SD)
- Mean quit time: 8 years
- Smoking cessation intervention: 63% of LCS patients who smoked had documented intervention or fu

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## TEALS Pilot Study Baseline Care Utilization

Access to Care Characteristics	Mean	Range
Number of visits in 6 months:	4.56*	1-7
Preventive Care Patterns:	N	%
Made an appointment for a health checkup with doctor	34	60
Up-to-date on the Following Tests/Exams:	N	%
Mammogram	10	18
Colonoscopy, sigmoidoscopy or stool test	17	30
CT scan to look for lung cancer	22	39

\* unchanged during the study

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## TEALS Pilot Participation & LCS Statistics

Participation Metrics (October 2021 - June 2022)	N (57)	%
Completed baseline patient survey	56	98%
Completed post-intervention patient survey	44	79%
Participant deaths (unrelated)	1	0.02%
Lost to follow-up	12	21%
Study participation time (months)	8.6 +/- 1.8	-
Lung Cancer Screening (LCS) Metrics	N (57)	%
Up-to-date on lung cancer screening (after ~8-month intervention)	22 -> 33	39% -> 58%*
Screening result Lung-RADS 1 ("negative")	34	60%
Screening result Lung-RADS 2 ("benign appearance" nodule/s)	17	30%
Screening result Lung-RADS 3 ("probably benign" nodule/s)	3	5%
Screening result Lung-RADS 4 ("suspicious" nodule/s)	3	5%
Further evaluation of nodules	9	15%
Malignant nodules	0	0%

\*p < 0.01

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### More Lessons: Optimized LCS Process

- ❖ **Step 1:** Improving [smoking history assessment](#) and documentation (to determine pack years)
- ❖ **Step 2:** Implementing screening [conversation triggers](#) (regular care and population health)
- ❖ **Step 3:** Building a preventive [care coordination](#) function (coordinator/navigator and screening registry)
- ❖ **Step 4:** Instituting an LCS [shared decision-making](#) process (in-clinic or post-visit nurse calls)
- ❖ **Step 5:** Deploying a robust patient [follow-up process](#)
- ❖ **Step 6:** Linking LCS to [smoking cessation](#) services

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### Lessons Learned from the TEALS Pilot

- ❖ A community-engaged, multi-component, and multi-level program [can significantly improve](#) LCS rates in rural and tribal health systems
- ❖ A key feature of TEALS is a [centralized LCS coordination](#) service supported by a population-based screening registry
- ❖ Ongoing [community stakeholder participation](#) and community-tailoring of the intervention approach greatly contributed to the success of TEALS
- ❖ If supported by the findings of our larger clinical trial, TEALS holds [promise for dissemination](#) to other high-need primary care settings

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### Questions? Comments?



Zsolt Nagykaldi, PhD  
[znagykal@ouhsc.edu](mailto:znagykal@ouhsc.edu)



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