

William R. Mayfield MD FACS

Chair, Georgia Lung Cancer
Roundtable (GLCRT)
Chief Surgical Officer,
WellStar Health System



GEORGIA LUNG CANCER ROUNDTABLE

National Lung Cancer Round Table (NLCRT)
December 9-10, 2018



VISION

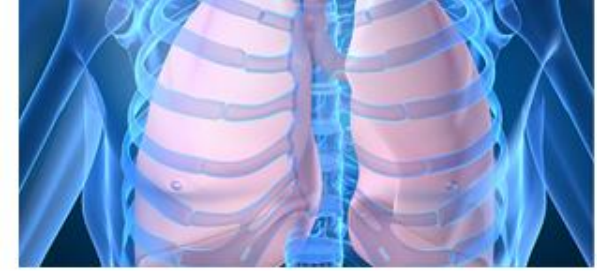
Georgia will become the Nation's leader in detecting lung cancer at its earliest and most treatable stage.



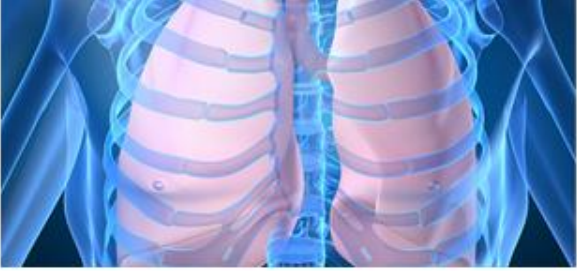
MISSION

We will turn consensus into action to save lives in Georgia.

We will increase awareness, access, and quality of lung cancer screening and prevention.

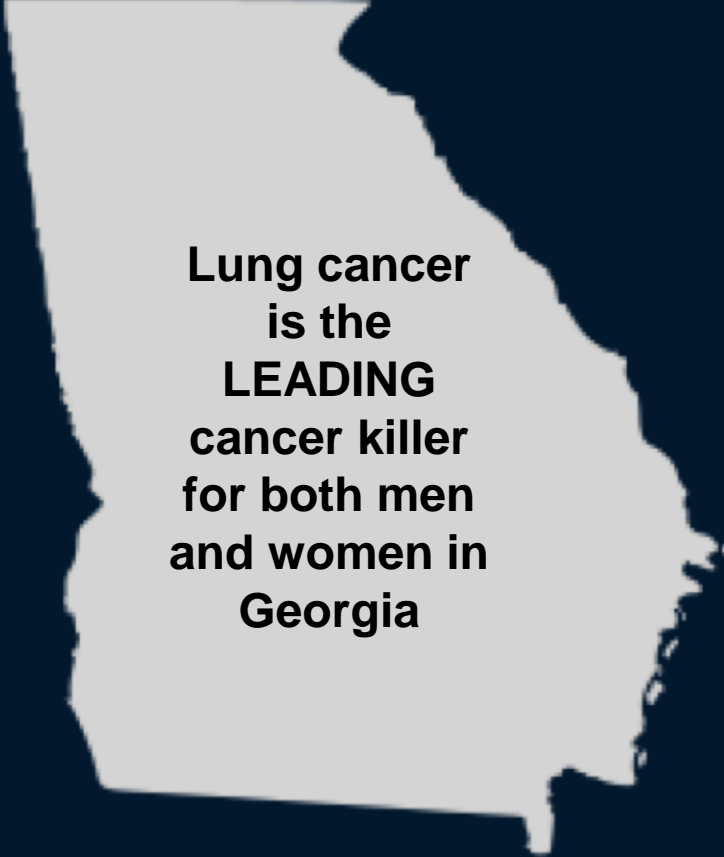


CURRENT STATE



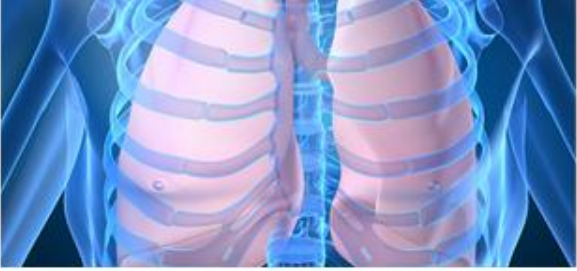
Lung Cancer in Georgia

- **Incidence:** 6,340 new cases / year
 - 15% of all newly diagnosed cancer cases
- **Mortality:** 4,450 Georgians die / year
 - 29% of all cancer deaths in Georgia each year



Lung cancer
is the
LEADING
cancer killer
for both men
and women in
Georgia

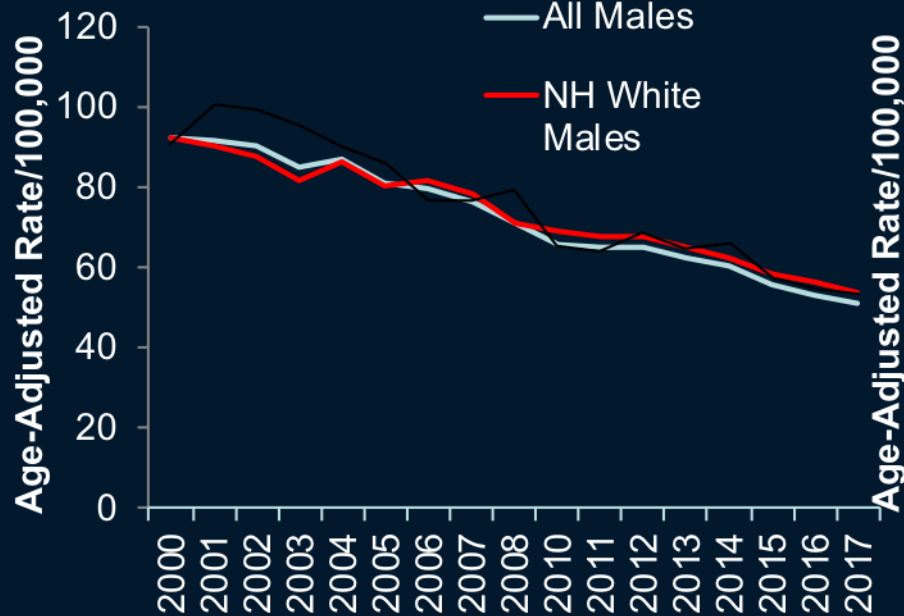
A white silhouette of the state of Georgia is centered on the right side of the slide. The text is placed inside the silhouette.



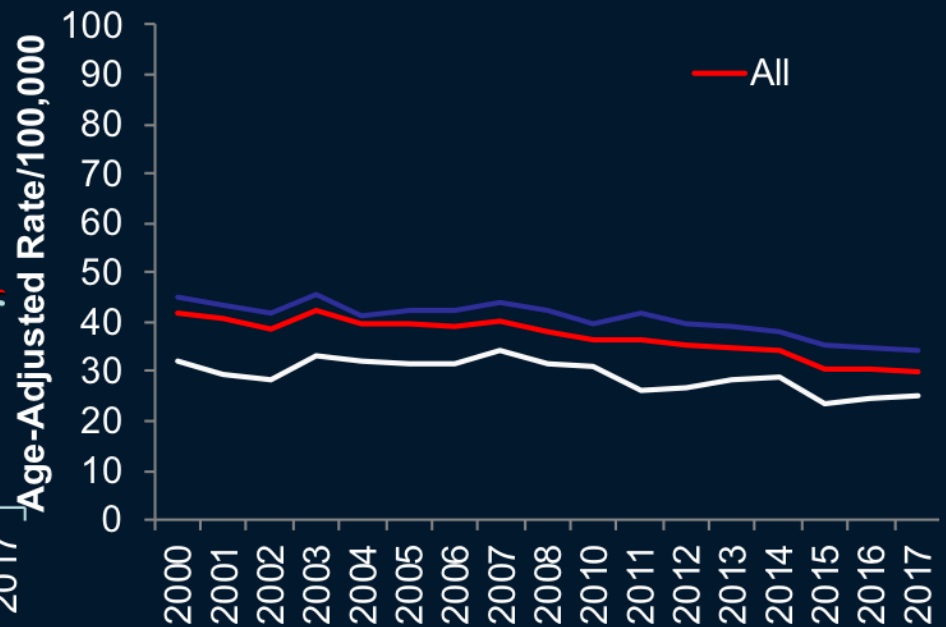
Lung Cancer Mortality Trend

Georgia 2000-2017

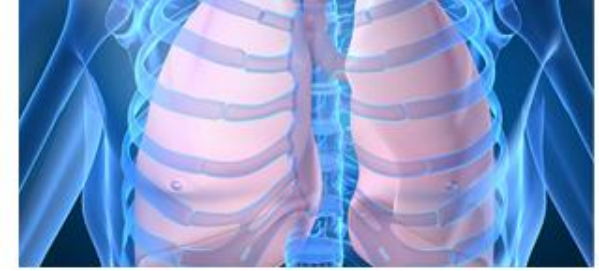
Males



Females



Data Source: Georgia Death Data Accessed through OASIS

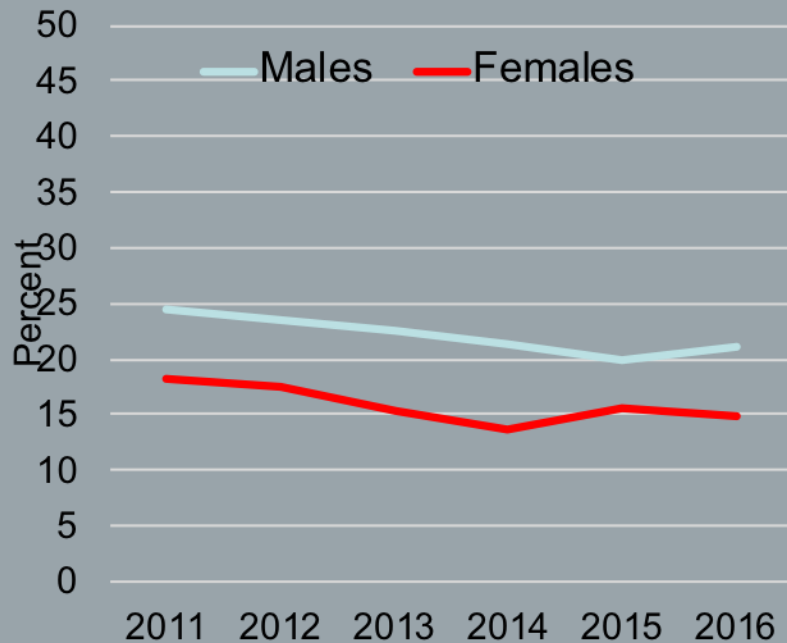


- Georgia added the Lung Cancer Screening module on the 2017 Behavioral Risk Factor Surveillance System (GA-BRFSS)
- BRFSS is a telephone survey of Adult Georgians
- The Georgia sample size was 8,000 for 2017

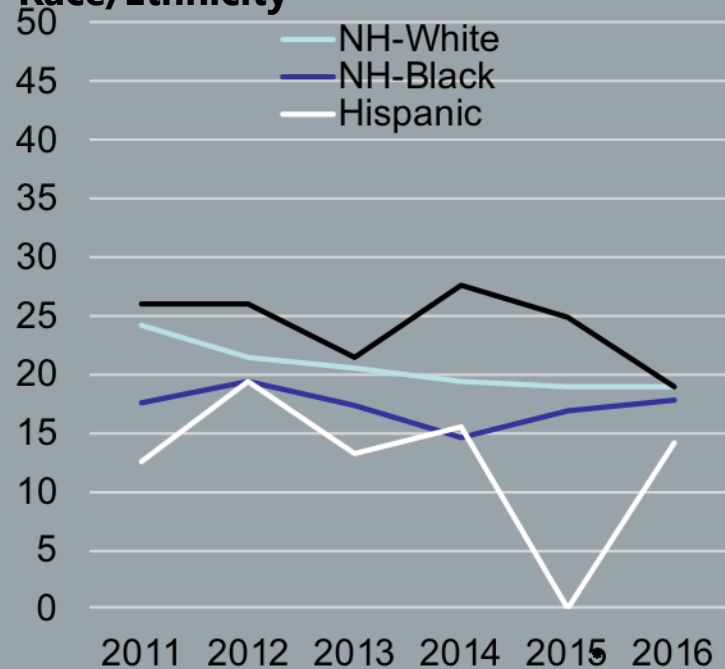


Smoking Prevalence, Georgia only 18 Years and Older, 2011-2016

By Sex



By Race/Ethnicity



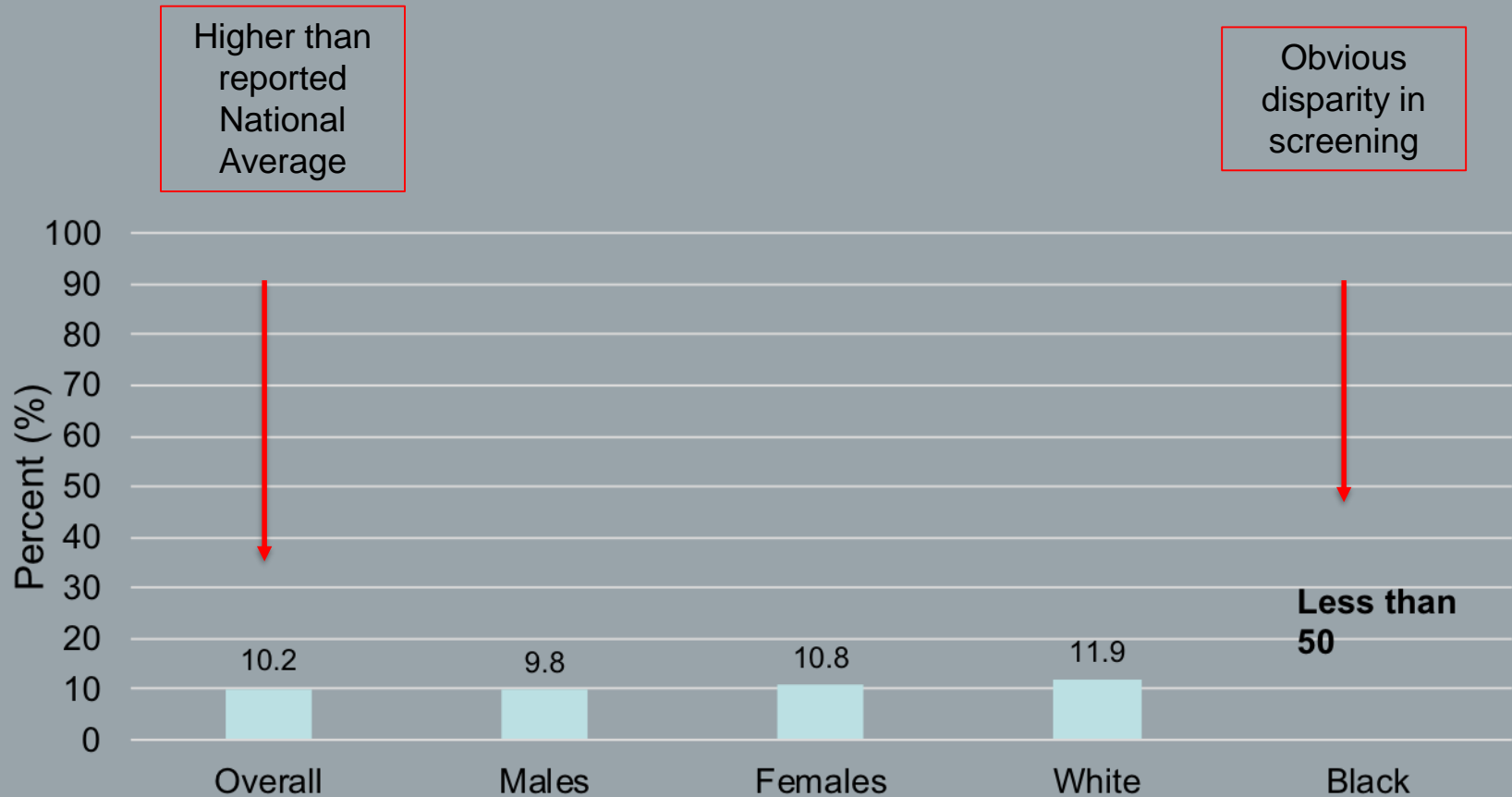
Data Source: Georgia Behavioral Risk Factor Surveillance System

* Data not available



Lung Cancer Screening by BRFSS, Georgia, 2017

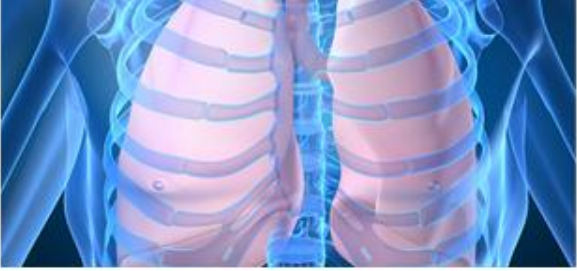
Subjects who fit NLST Criteria



Data Source: 2017 Georgia Behavioral Risk Factor Surveillance System



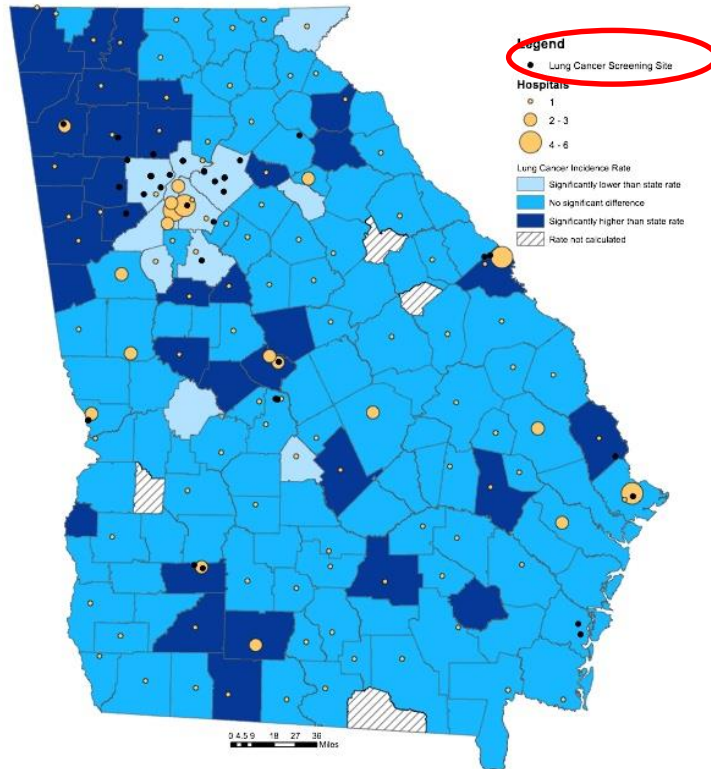
DISPARITIES



SCREENING ACCESS

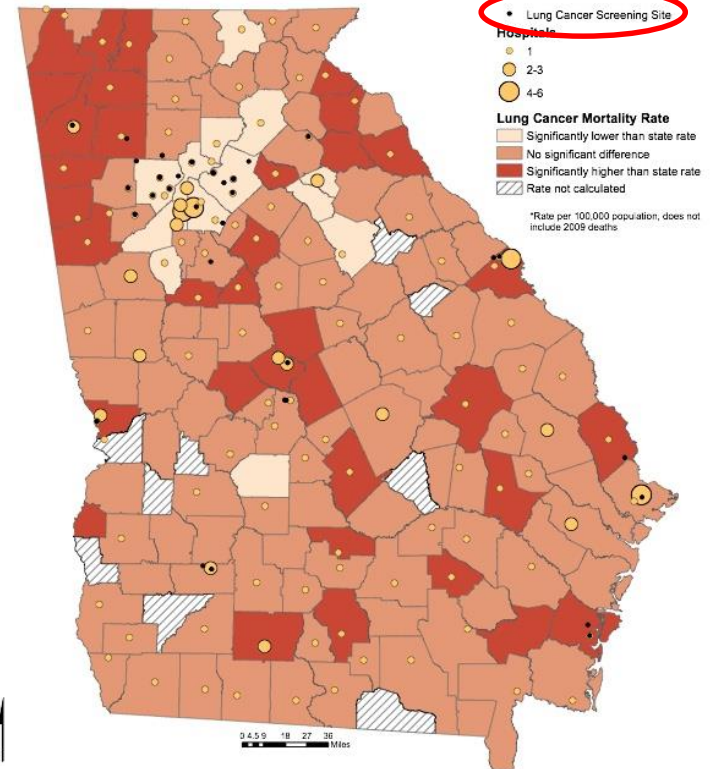
INCIDENCE

Age-Adjusted Lung Cancer Incidence Rates by County (2008-2012), Hospitals, and Lung Cancer Screening Sites in Georgia



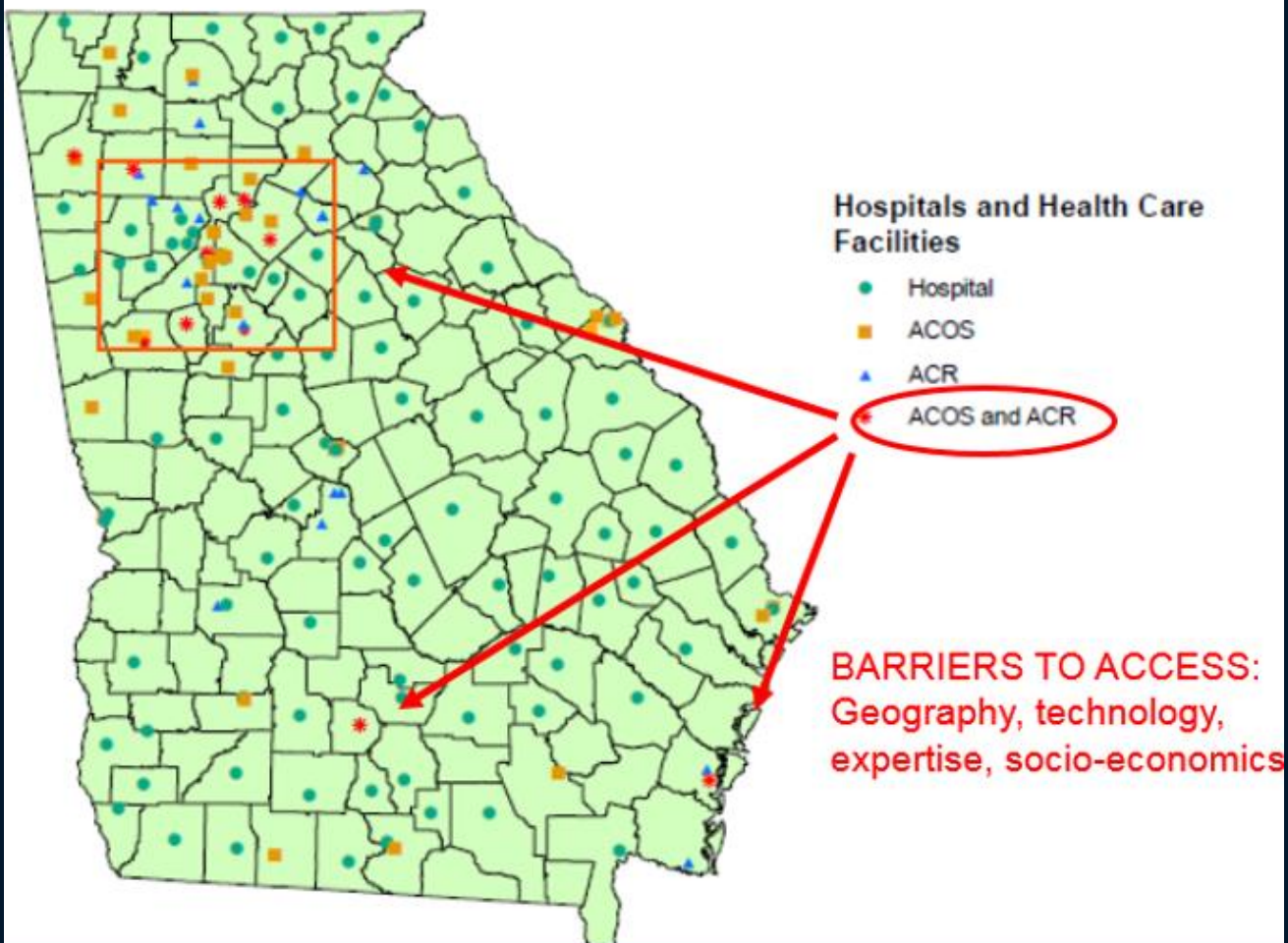
MORTALITY

Age-Adjusted Lung Cancer Mortality Rates by County (2007-2012*), Hospitals (2015), and Lung Cancer Screening Sites in Georgia



TREATMENT ACCESS

Hospitals and Health Care Facilities Categorized based on Type of Accreditation, American College of Surgeons (ACOS) and American College of Radiology (ACR), Georgia

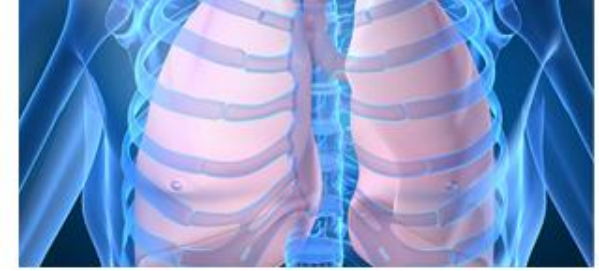




GEORGIA LUNG CANCER ROUND TABLE



WE HAVE MANY OPPORTUNITIES FOR
IMPROVEMENT.



STRUCTURE

- Launched in 2017
- An initiative of the Georgia Cancer Control Consortium (GC3)
- Project management by the ACS

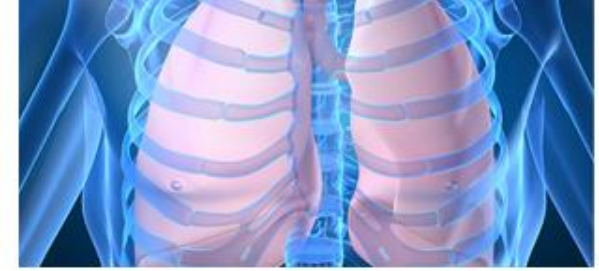
A large, solid purple circle is positioned on the right side of the slide. Inside the circle, the words "ROUND" and "TABLE" are written in a white, sans-serif font, stacked vertically. The circle is centered vertically relative to the text on the slide.

ROUND
TABLE



FIVE WORKGROUPS





WORK GROUPS

- **Provider Engagement**
 - Nancy Johnson, MSM and Charles Kemp, MD (Primary Care)
- **Access and Navigation**
 - Lisa Acree, RN, MSN, ANP and Vickie Beckler RN, MBA
- **Quality and Standards**
 - Adam Jones, MD (Radiation Oncology)
- **Policy**
 - Aaron Cann, MD, PhD (Thoracic Radiology)
- **Prevention and Smoking Cessation**
 - Salman Fidahusseini, MD (Pulmonary Medicine) and Munish Luthra, MD (Pulmonary Medicine)



GLCRT ACTION IN 2018

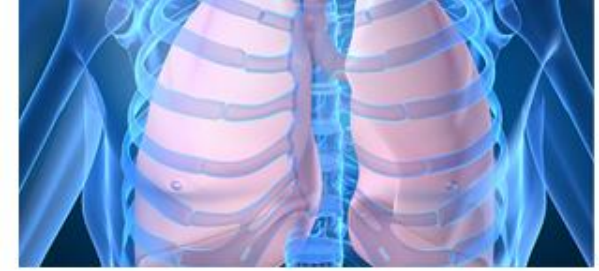


2018 EXECUTIVE ACTION

- Monthly calls with chairs and executive team
- Individual Work Group meetings
- *Second Annual GLCRT Meeting Forum*
 - 73 attendees
 - Diverse leadership from across the State
 - diverse arenas including health systems, FQHCS, government, health plans, academic centers, thoracic surgeons, primary care, medical societies, community organizations, industry, and more

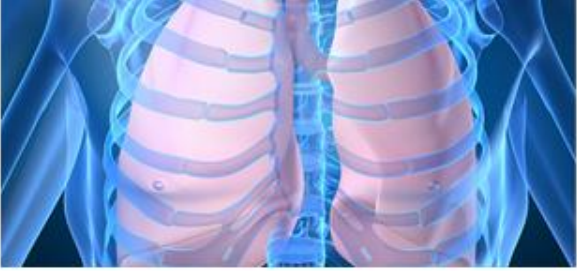
“Wonderful opportunity to network, share info, and hear about some of the other significant work being done across the state.”

-GLCRT 2018 Attendee



2018 EXECUTIVE ACTION

- Engagement with the Medical Association of Georgia (MAG)
 - 7,800 members, every specialty and practice setting
 - Motion at MAG: Support for Lung Screening
 - November LCAM Social Media Messaging
 - Publishing a 5 part-series on Lung Cancer and Screening in monthly newsletter (6,000 Distribution)
 - Supporting effort to have payors properly refer and compensate for screening
 - Promoting Screening in the Top Docs radio show



MAG



Nurse Navigators: A key part of the lung cancer screening process

By William Mayfield, M.D., FACS, thoracic surgeon and chief surgical officer, WellStar Health System, and chair, Georgia Lung Cancer Round Table

In the article that I wrote for the last edition of *e-News from MAG*, I described the tremendous burden associated with lung cancer in our state and pointed out that low-dose CT screening is an important means for early detection. When performed properly, low-dose CT screening saves lives – reducing mortality by about 20 percent (National Lung Screening Trial, confirmed by the NELSON trial.)

High quality screening is imperative. Model Lung Cancer Screening Centers 1) employ 'Nurse Navigators' and 2) participate in the American College of Radiology Registry (LungRADS) and 3) are supported by a multi-disciplinary team for the comprehensive management of positive findings.

There is a series of steps that are required for high-quality lung cancer screening, which include...

1. Proper enrollment criteria (NLST, USPSTF, CMS, NCCN 1&2)
2. Shared decision-making between the ordering provider and the patient
3. Low-dose CT screening preferably by an ACR certified center
4. A prompt, high-quality interpretation by a radiologist with the use of LungRADS reporting tables
5. Promptly communicating the results of the test results to the patient and referring physician
6. Managing concerning nodules with a multi-disciplinary team, including pulmonary medicine, thoracic surgery, medical oncology, radiology, and radiation oncology

The experience of the members of the Georgia Lung Cancer Round Table has led us to conclude that if any of these components are missing, quality suffers, the benefits of screening dissipate, and patients are put at higher risk than is necessary.

I will address these six steps of Lung Screening on an individual basis in future editions of *e-News from MAG*.

Nurse Navigation

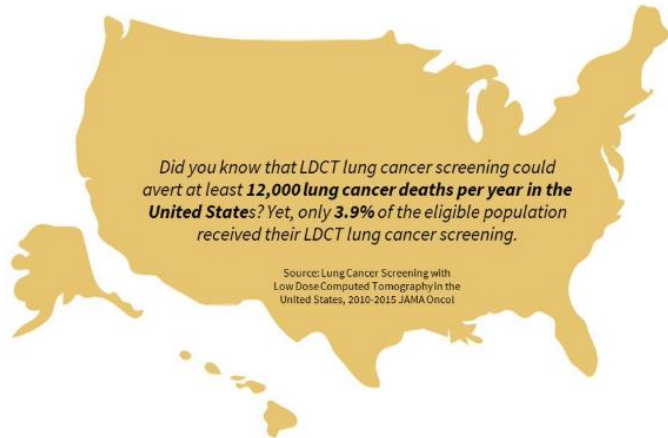
Nurse Navigation is fundamental to quality and safety in Lung Cancer Screening. Lung Cancer Screening is a process which is managed over time, as opposed to a single study that is performed in one setting. The greatest value of CT screening is through identifying a change in the character of a nodule or the appearance of a new nodule when two scans are compared. Nurse Navigators are relentless in directing the patient through their course of screens and follow-up care. They ensure compliance with follow-up interim scans. Nurse Navigators are the patient's advocate in the management of positive findings, in coordination with the multi-disciplinary team, and in communication with the Primary Care physician. Although Physicians perform the interpretations and deliver medical or surgical care, Nurse Navigators are the glue that holds the entire process together.

Editor's note: This is part of a series of articles that Dr. Mayfield will write for 'e-News from MAG' that will address lung cancer screening and the steps that the Georgia Lung Cancer Round Table is taking to improve lung cancer screening rates and to reduce the incidence and mortality of lung cancer in the state. GLCRT is an initiative of the Georgia Cancer Control Consortium that is supported by the American Cancer Society. Contact Kelly Durden

Tweet



Medical Assn of GA @MAG1849 · Dec 4

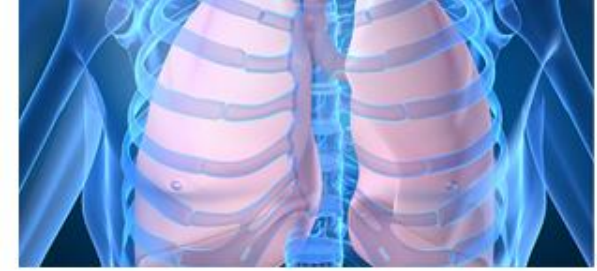


Article



2018 EXECUTIVE ACTION

- Engagement with GASCO and GC3
 - Keynote Speaker for Annual GASCO/Navigator Meeting
 - Discussion of directing a portion of Tobacco Settlement Fund dollars to Lung Cancer and Lung Cancer Screening
- Engagement with American College of Physicians, GA Chapter
 - Booth and Survey at annual State Meeting
- Engagement with National Lung Cancer Round Table
 - Committee Members
 - Panel for State Initiatives and Lung Screening



WORKGROUP ACTION



Provider Engagement

Results from the GLCRT Provider Engagement Workgroup Lung Cancer Screening Survey

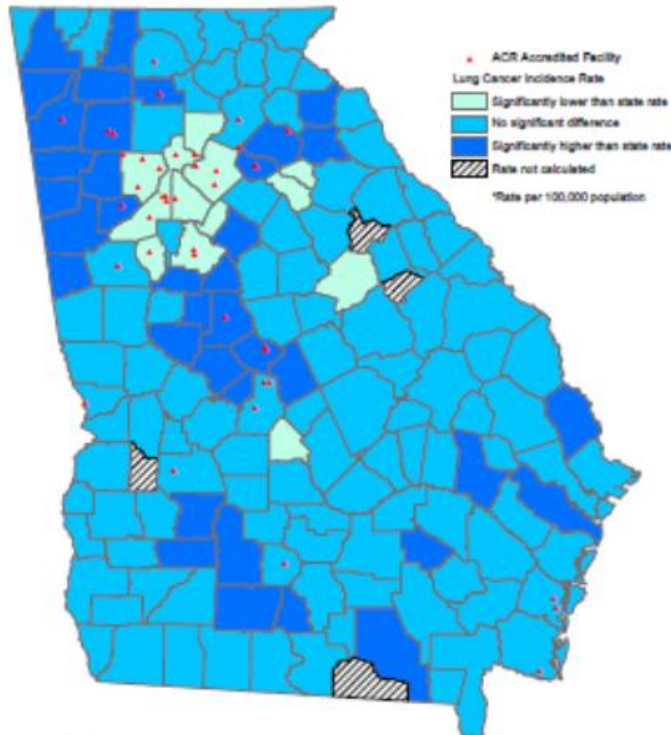
Venue: American College of Physicians (ACP), Georgia Chapter Annual Scientific Meeting

# of Respondents	Question	Results
36	Do you currently recommend lung cancer screening to your patients?	<input type="checkbox"/> YES 32/88.84% <input type="checkbox"/> NO 4/11.11%
36	What method of lung cancer screening do you use with patients?	<input type="checkbox"/> Chest X-ray 3/8.33% <input type="checkbox"/> Low-dose CT (LDCT) 29/80.5% <input type="checkbox"/> No screening 4/11.11%
36	Do your patients have issues paying for the cost, co-pay or with insurance coverage for the Low-dose CT scans of the chest for lung cancer screening?	<input type="checkbox"/> YES 10/27.77% <input type="checkbox"/> NO 5/13.88% <input type="checkbox"/> IT VARIES 21/58.33%
36	Are you aware of the reimbursement from Medicare for shared decision-making discussions regarding Low-dose CT scans of the chest for lung cancer screening?	<input type="checkbox"/> YES 17/47.22% <input type="checkbox"/> NO 19/52.77%
17	If so, do you bill for these conversations?	<input type="checkbox"/> YES 4/23.53% <input type="checkbox"/> NO 4/23.53% <input type="checkbox"/> DO NOT KNOW 9/52.94%
32	How do you decide which radiology centers to use for lung cancer screening? (Respondents could choose multiple responses)	<input type="checkbox"/> Cost 11/ 34.3% <input type="checkbox"/> Availability 13/40.6% <input type="checkbox"/> Certification 3/9.4% <input type="checkbox"/> Patient Preference/Choice 13/40.62%

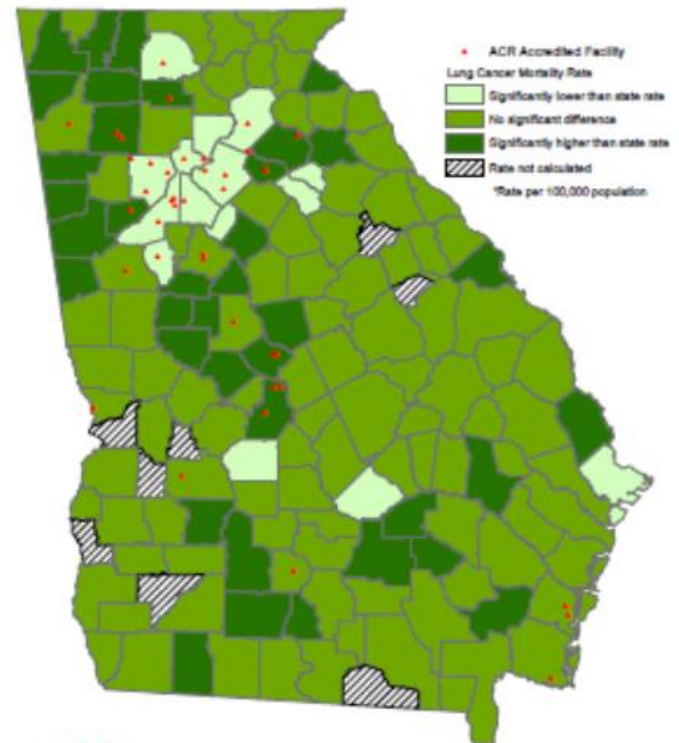
Access and Navigation

- Led the creation of the access mapping projects

Age-Adjusted Lung Cancer Incidence Rates by County (2010-2014)
and American College of Radiology (ACR) Accreditation, Georgia



Age-Adjusted Lung Cancer Mortality Rates by County (2010-2014)
and American College of Radiology (ACR) Accreditation, Georgia





Policy

- Examination of claims data
 - Recognition of wide range of charges/reimbursement for lung screening
 - Barrier to payer support
- Start of MAG resolution

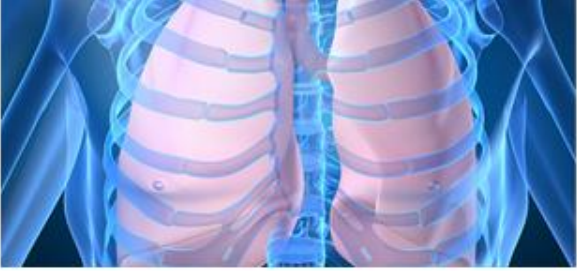


High Cost Variability One Private Insurer's Claims Data

Some Paid
Claims
were as
high
\$2,810.52

Mean:
\$607.20

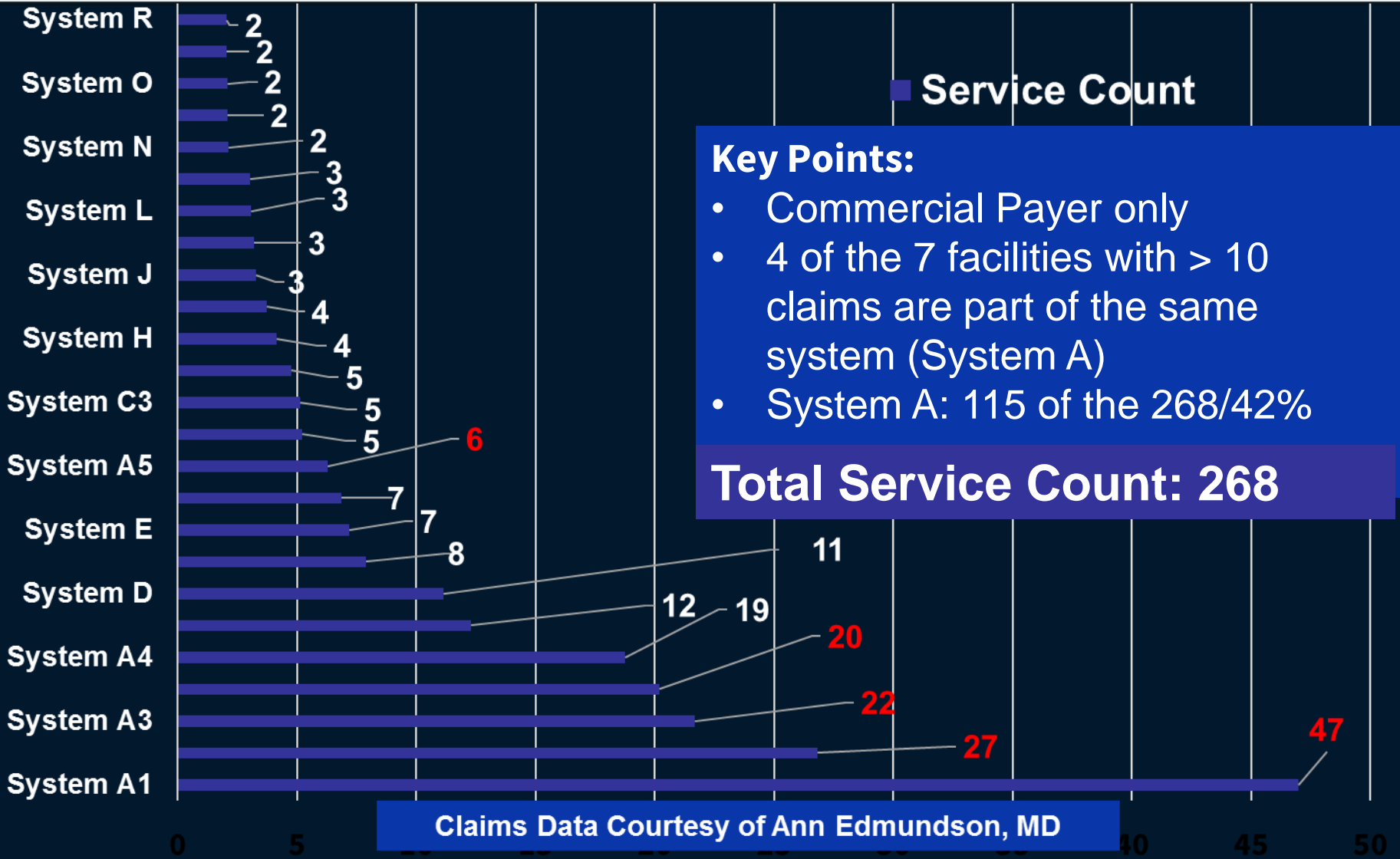
**High Cost and Variability
Influences the issue of “Steerage”
away from screening centers**



Service Count

LDCT Lung Cancer Screening by Center

One Insurer's Claims Data, FY2017





Quality and Standards

- Survey of Lung Screening sites State-wide
- Collation and publication of Lung Screening quality standards State-wide

Early Quality Based Outcomes in Georgia Lung Cancer Screening Programs

Jones DA¹, Jesky D² Hotz J³ Schroeder C⁴ Acree L⁵ Nelson T⁶ Beckler V⁶ Mayfield W⁶

¹Phoebe Putney Memorial Hospital, Radiation Oncology Associates, Albany GA; ²Northside Hospital, Atlanta GA; ³Albany Area Primary Care, Cancer Coalition of South Georgia, Horizons Community Solutions, Albany GA; ⁴Medical College of Georgia, Augusta GA; ⁵Redmond Regional Medical Center, Rome GA; ⁶WellStar Hospital, Atlanta GA

The Georgia Comprehensive Cancer Control Plan And GC3



Purpose

We accumulated a variety of endpoints from various institutions across the state illustrating key elements of effective and responsible work up which may ultimately be used as quality benchmarks.

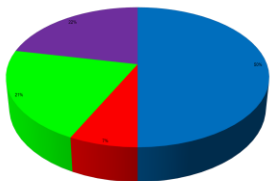
- To collaborate with lung cancer screening sites in the state of Georgia, representing a diverse group of programs
 - Community Based Rural (Redmond Regional, Rome GA; Phoebe Putney Memorial, Albany GA)
 - Community Based Urban (WellStar)
 - Academic (MCG, Augusta University)
- To analyze outcomes data from screening intake, organization, workup patterns, cancer rates, cancer staging patterns
- To identify benchmark outcomes for institutional screening sites in the state of Georgia
- To overcome concerns of organizations such as AAFP that results of NLST could not be replicated in the community

NLST Outcomes

Total n	Cancers Diagnosed	Invasive Procedures	Cancer Stage at diagnosis
26,722	Total 1060 (3.97%) • During trial 693 (2.6%) • After/off trial 367 (1.3%)	Total 1706 • Percutaneous 322 (1.2%) • Bronchoscopy 671 (2.5%) • Surgical 713 (2.7%)	• I 50% • II 7.1% • III 21.2% • IV 21.7%

NLST Stage Distribution

I II III IV



* Only the CT cohort is included in above results

Results

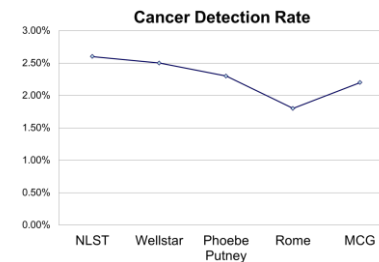
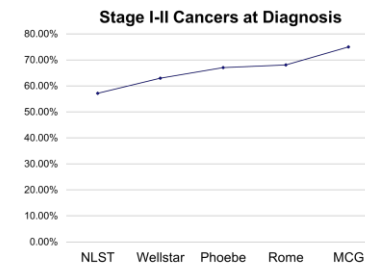
Institution	Years screening population	Number of patients screened	Screening Compliance	Adherence	Biopsy Rate	True Positive Biopsy (%)	Lung Cancer Detection / Scan Ratio	Stage I-II at Diagnosis
WellStar 2008-2018 NCCN 2, USPTF		4,642	90-100 %	67% 10 year rate	4.4%	70%	1:40 64% met NCCN 2 criteria	63%
PPMH 2017 CMS/NCCN 1		654	100 %	50% 12 month rate	2.6%	82%	1:44	67%
Rome CMS/NCCN 1		1376	100 %	60%	2.1%	83%	1:55	68% (stage 1)
MCG 2014-2015 NCCN 1,2		264	95-100%	50% 12 month rate	4%	80%	1:45	75%

WellStar Subset: Qualifying Group 2 Factor (s)
74 Total Lung Cancers (64% of overall Lung cancers diagnosed met NCCN 2 criteria)

- Positive Family History (39; 53%)
- Carcinogen and/or occupational hazard (19; 26%)
- Personal history tobacco related cancer (8;11%)
- Personal history COPD or pulmonary fibrosis (18; 24%)
- ** some patients may have had multiple factors

The collection of data represents a diverse group of both community and academic hospital systems across the state of Georgia.

- Screening compliance is generally very good, approaches 100% for all programs listed
- Biopsy rates range from 2.1% to 4.4%
- True positive biopsy rates range from 70% to 83%
- Cancer detection rates range from 1.8% to 2.5%, ratios are listed
- Early stage cancer diagnosis range from 63% to 75%
- Adherence is a significant problem ranging from 50% to 67%
- These results may be interpreted as quality benchmarks

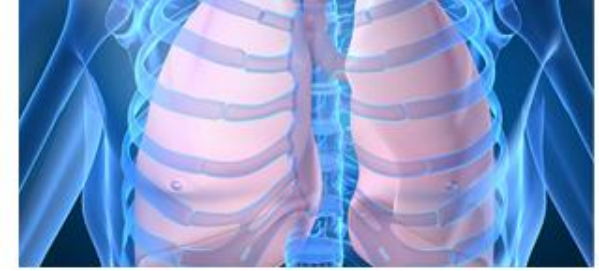


Conclusion

- In the state of Georgia, as studied in the above group of hospital systems/screening programs, it is feasible to maintain high quality and responsible workup for findings identified in low dose CT scans, mainly with the use of multidisciplinary input.
- Absolute biopsy rate remains low, while true positive biopsy rates are excellent. Cancer detection rates are similar to what has been documented in other major series.
- Quality indicators for responsible workup have been identified.
- Adherence is a challenge for state and national programs. Through its robust nurse navigation program, WellStar maintains an excellent (67% 10 year rate.) Follow up scans are scheduled as a priority by the navigation team in advance, and a reminder is sent prior to the appointment to take the burden off of ordering physicians and patients themselves.
- Rural and Urban programs within the state of Georgia have been identified that maintain quality screening outcomes, including academic and community programs, supporting the notion that comprehensive and organized lung cancer screening can be effectively performed in a community setting.

Selected References

- Berg, C, et al. Reduced Lung-Cancer Mortality with Low-Dose computed tomographic screening. N Engl J Med 2011;365:395-409
- Miller D, et al. Community-Based multidisciplinary computed tomography screening program improves lung cancer survival. Ann Thorac Surg 2016;101:1864-9
- Simmerman E, et al. Free lung cancer screening trends toward a twofold increase in lung cancer prevalence in the underserved southeastern United States. Southern medical journal.V110.N3, March 2017.
- Bach PB, et al. Benefits and Harms of CT Screening for Lung Cancer. JAMA. 2012



Prevention and Smoking Cessation

- Georgia Quit Line is linked to regional Lung Screening Sites



FUNDAMENTAL ISSUES TO RESOLVE



Alignment of the 4 P's

- Policy
 - Public Health and Private
- Providers
 - Primary Care and Lung Cancer Specialists
- Payers
 - Insurers and Self-insured
- Patients
 - Awareness
 - Access





ISSUES for alignment

- Definition of who to screen
- Shared decision making tool
- EMR flags for candidates for screening
- Definitions of “Quality” for payors and patients
- Referrals to “Quality” screening centers
- On-site and multi-disciplinary care back-up
- Creating codes for billing intermediate scans
- Address geographic disparities
- Address socio-economic disparities



Major challenges

- Pure volunteerism
 - Everyone has two or three other jobs
- Scant funding
 - Access Tobacco Settlement Dollars
- Wheels move very slowly
 - A loosely organized coalition
- Need a State-wide office with staff
 - Kelly Durden of ACS is Hercules, but cannot do everything for everyone