

Implementing a Low Dose Computed Tomography (CT) Lung Cancer Screening Program at CHI Franciscan Health Harrison Medical Center

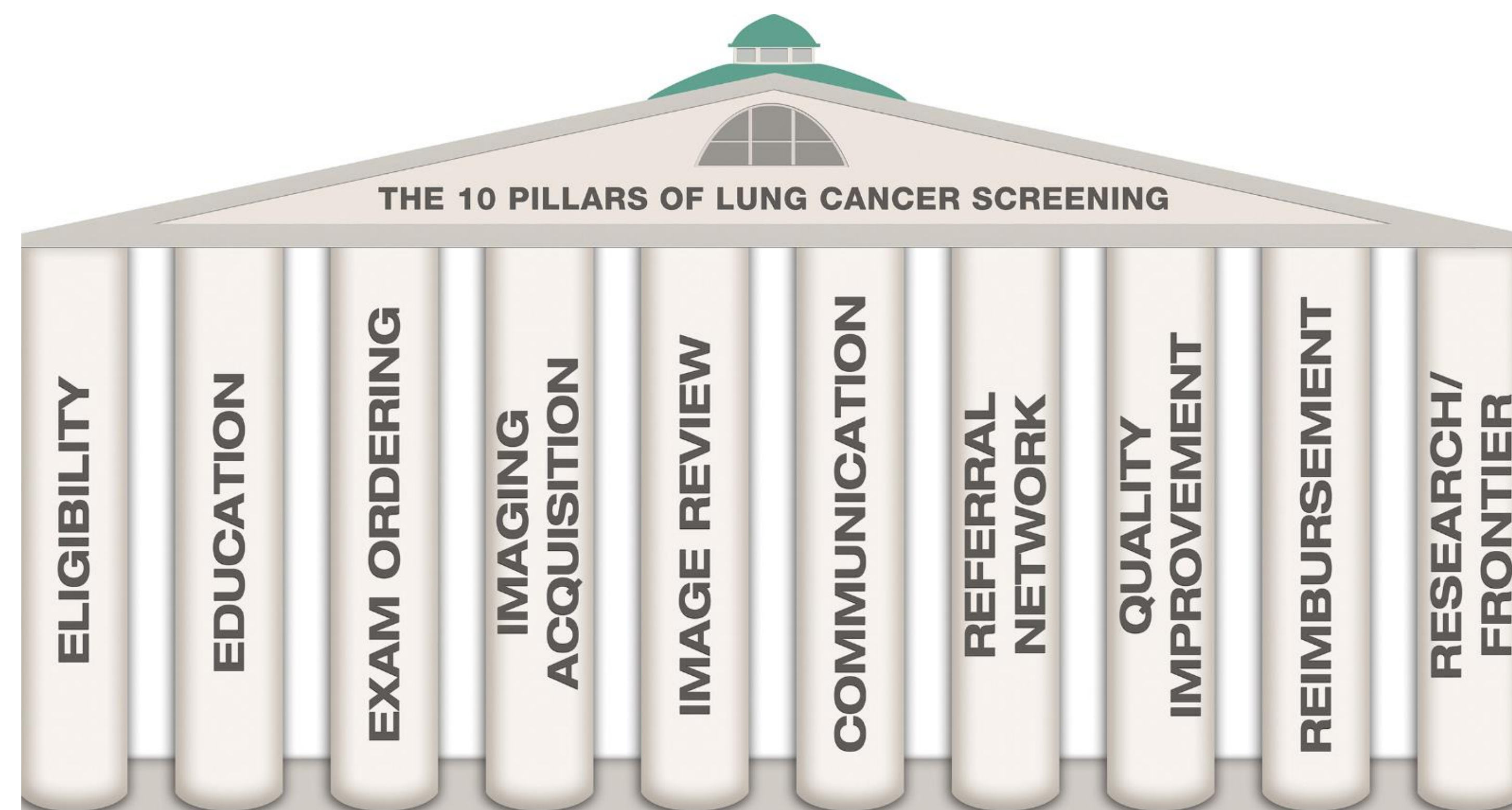
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Background

- In 2011, The U.S. Preventative Services Taskforce determined that routine lung screening with low dose CT scan could reduce lung cancer fatality by 20%.
- Medicare / Medicaid covers the cost of the screening.
- Early detection increases the 5 year survival rate for Stage I lung cancer to nearly 90%.

What is a lung cancer screening program?



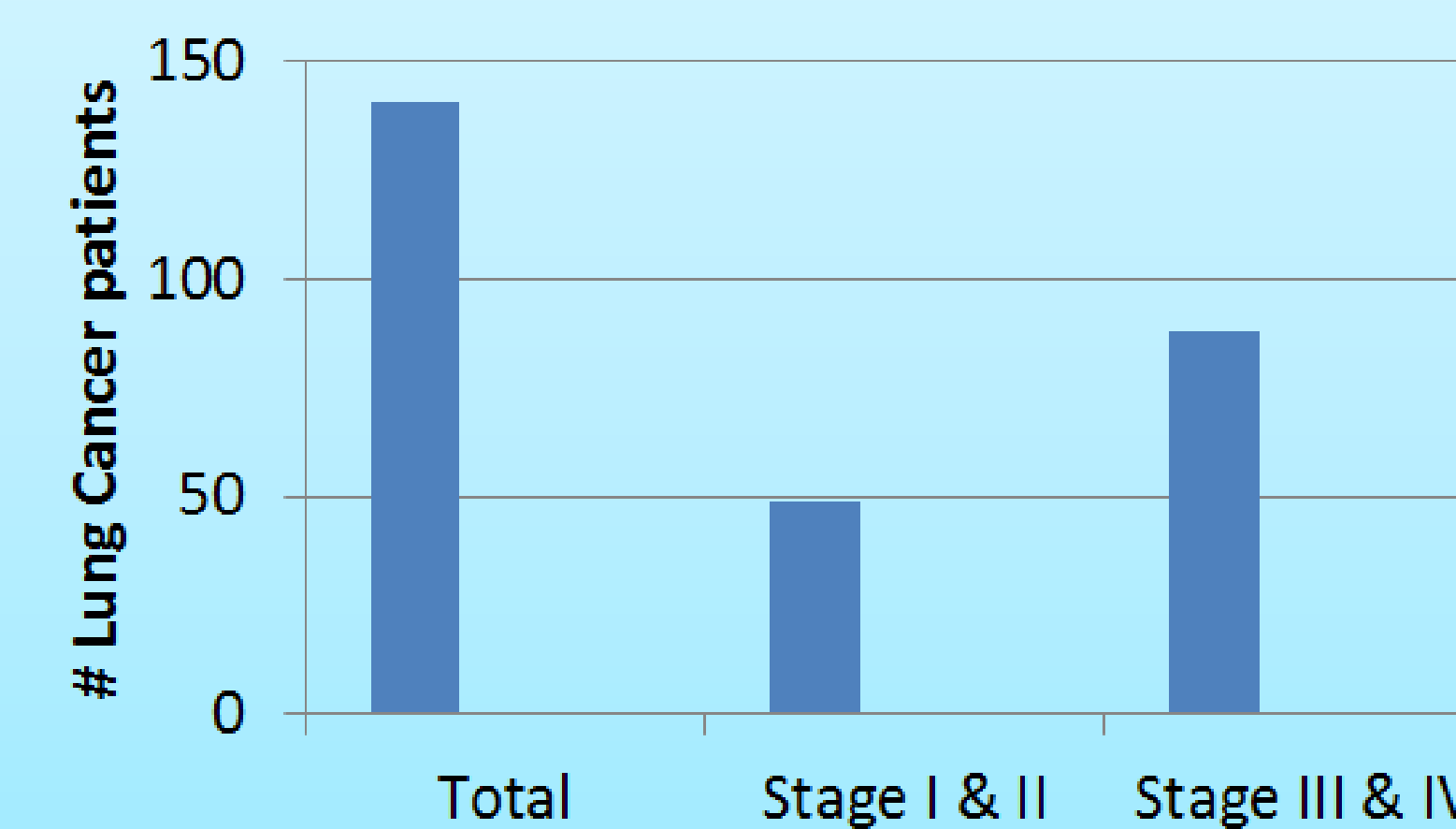
Eligibility Criteria

- Current smoker or quit within the last 15 years
- Between ages 55 – 77 years old
- Tobacco history at least one pack / day for 30 years
- No signs / symptoms of lung cancer

Harrison Statistics

Harrison's 2016 Lung Cancer Statistics

- 14.4% of all 2016 cancer diagnosis were lung
- 62% of these were stage III and IV
- 34% of these patients expired within 1 year



Program Development: Lung Cancer Screening at Harrison Medical Center

- **October 2016** Formed a group of committed doctors, administrators and support personnel to move the lung cancer screening program forward.
- **September 2017** Established specific program processes for radiology, oncology, thoracic surgery pulmonology, and support personnel.
- **April 2018** Held our first multi-disciplinary Lung Nodule Clinic. Meets every 2 weeks to review cases.
- **September 2018** Implemented a lung specific database for superior tracking and reporting

Harrison Program Results

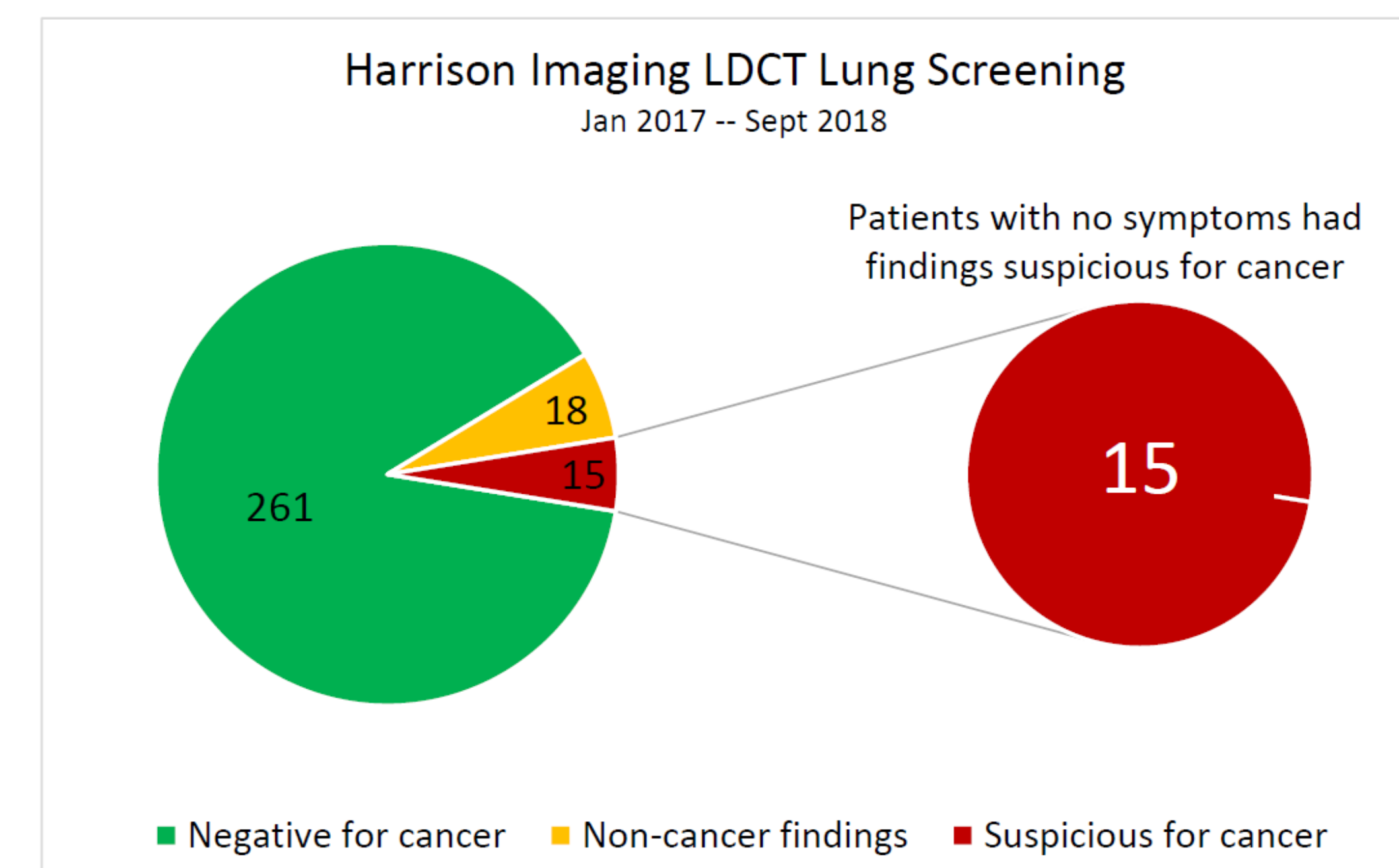
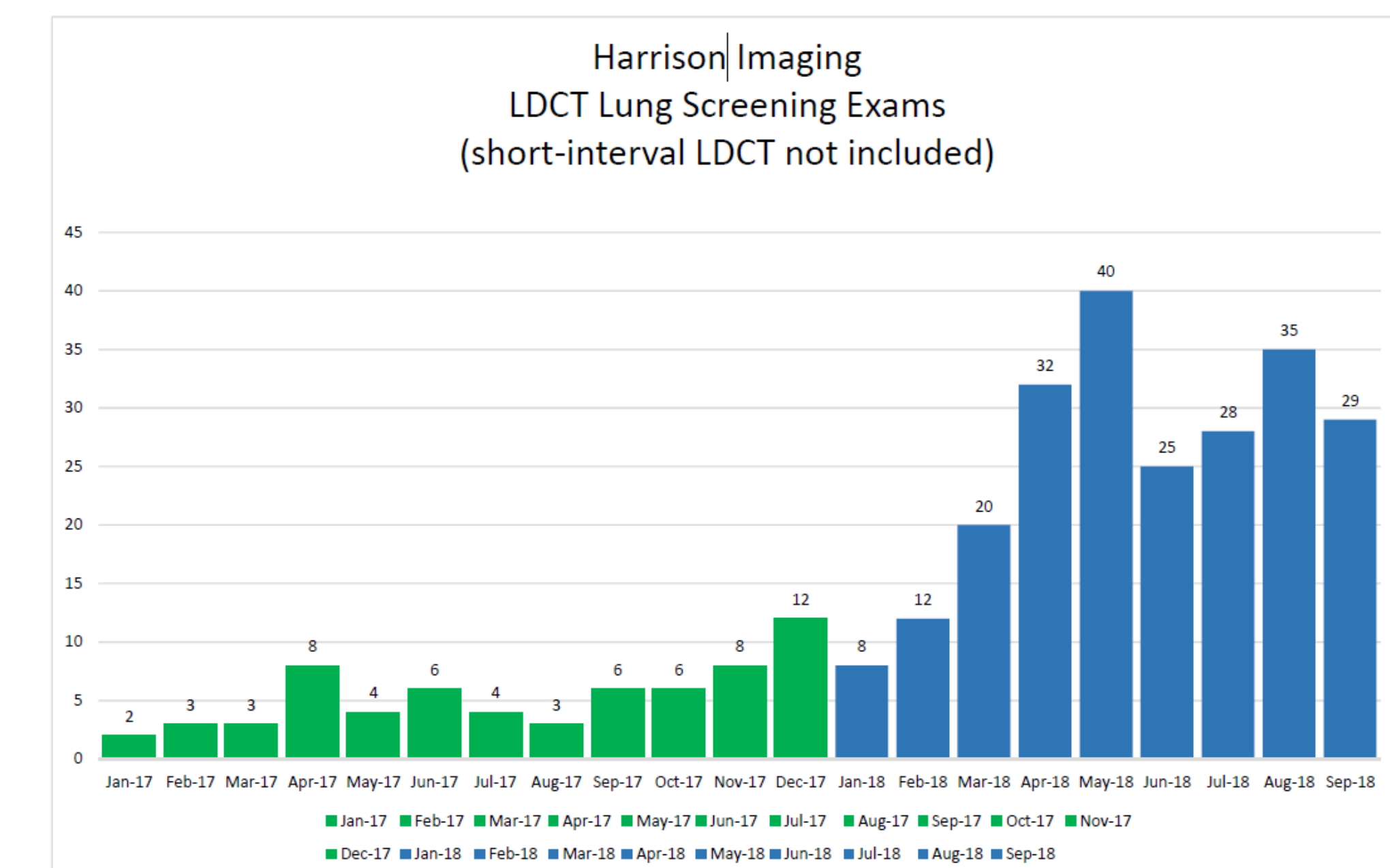


Figure 3. Leading Sites of New Cancer Cases and Deaths – 2018 Estimates

Estimated New Cases	Male		Female		
	Count	%	Count	%	
Prostate	164,690	19%	Breast	266,120	30%
Lung & bronchus	121,680	14%	Lung & bronchus	112,350	13%
Colon & rectum	75,610	9%	Colon & rectum	64,640	7%
Urinary bladder	62,380	7%	Uterine corpus	63,230	7%
Melanoma of the skin	55,150	6%	Thyroid	40,900	5%
Kidney & renal pelvis	42,680	5%	Melanoma of the skin	36,120	4%
Non-Hodgkin lymphoma	41,730	5%	Non-Hodgkin lymphoma	32,950	4%
Oral cavity & pharynx	37,160	4%	Pancreas	26,240	3%
Leukemia	35,030	4%	Leukemia	25,270	3%
Liver & intrahepatic bile duct	30,610	4%	Liver & renal pelvis	22,660	3%
All sites	856,370	100%	All sites	878,980	100%

Estimated Deaths	Male		Female		
	Count	%	Count	%	
Lung & bronchus	83,550	26%	Lung & bronchus	70,500	25%
Prostate	29,430	9%	Breast	40,920	14%
Colon & rectum	27,390	8%	Colon & rectum	23,240	8%
Pancreas	23,020	7%	Pancreas	21,310	7%
Liver & intrahepatic bile duct	20,540	6%	Ovary	14,070	5%
Leukemia	14,270	4%	Uterine corpus	11,350	4%
Esophagus	12,850	4%	Leukemia	10,100	4%
Urinary bladder	12,520	4%	Liver & intrahepatic bile duct	9,660	3%
Non-Hodgkin lymphoma	11,510	4%	Non-Hodgkin lymphoma	8,400	3%
Kidney & renal pelvis	10,010	3%	Brain & other nervous system	7,340	3%
All sites	323,630	100%	All sites	286,010	100%

Estimates are rounded to the nearest 10, and cases exclude basal cell and squamous cell skin cancers and in situ carcinoma except urinary bladder. Ranking is based on modeled projections and may differ from the most recent observed data. ©2018, American Cancer Society, Inc., Surveillance Research

References:

- American College of Radiology (n.d.). Low-Dose CT Lung Cancer FAQ. Retrieved from <https://www.acr.org/Clinical-Resources/Lung-Cancer-Screening-Resource/FAQ>
- American College of Radiology (2014) . Lung Rads™ Version 1.0 Assessment Categories Release date: April 28, 2014 [PDF].Retrieved from: https://www.acr.org/media/ACR/Files/RADS_AssessmentCategories.pdf?la=en
- Centers for Medicare & Medicaid Services (2015) . Decision memo for screening for lung cancer with low dose computed tomography (LDCT) (CAG-00439 N), Retrieved from <https://www.cms.gov/medicare-coverage-database/details/nca-decision-memo.aspx?NCAId=274>.
- Fintelmann, F.J.,Bernheim, A. Digumarthy, S. et al. (2015) The 10 pillars of lung Cancer screening: rationale and logistics of a lung cancer screening program. *Radiographics*, 35, 1893-1908. <https://doi.org/10.1148/rq.2015150079>