

# Lung Cancer Screening In Vermont Survey Results

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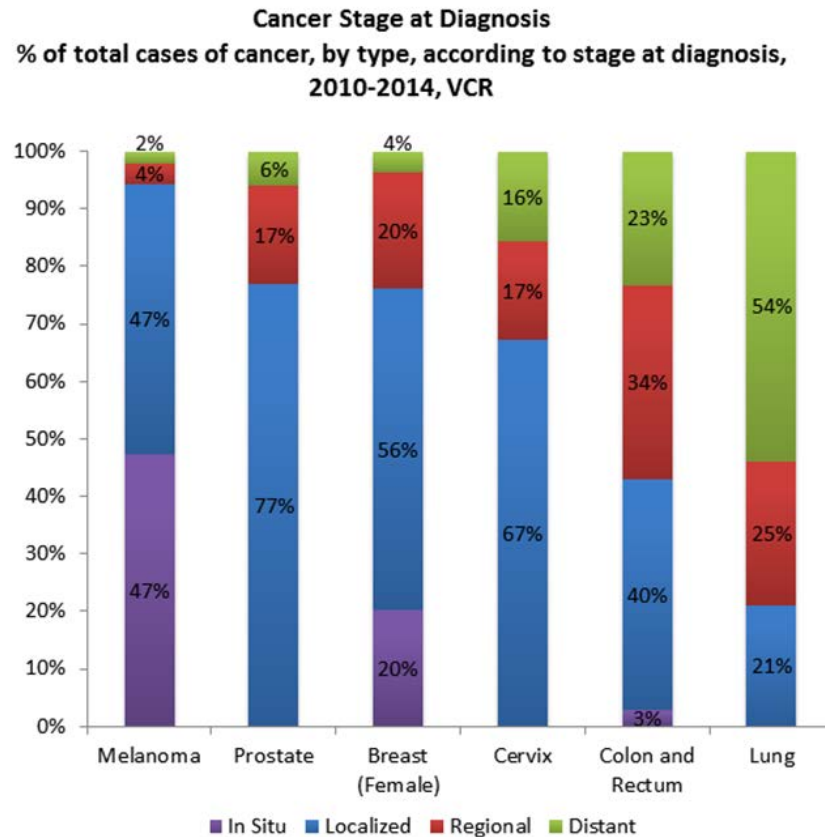
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# Background

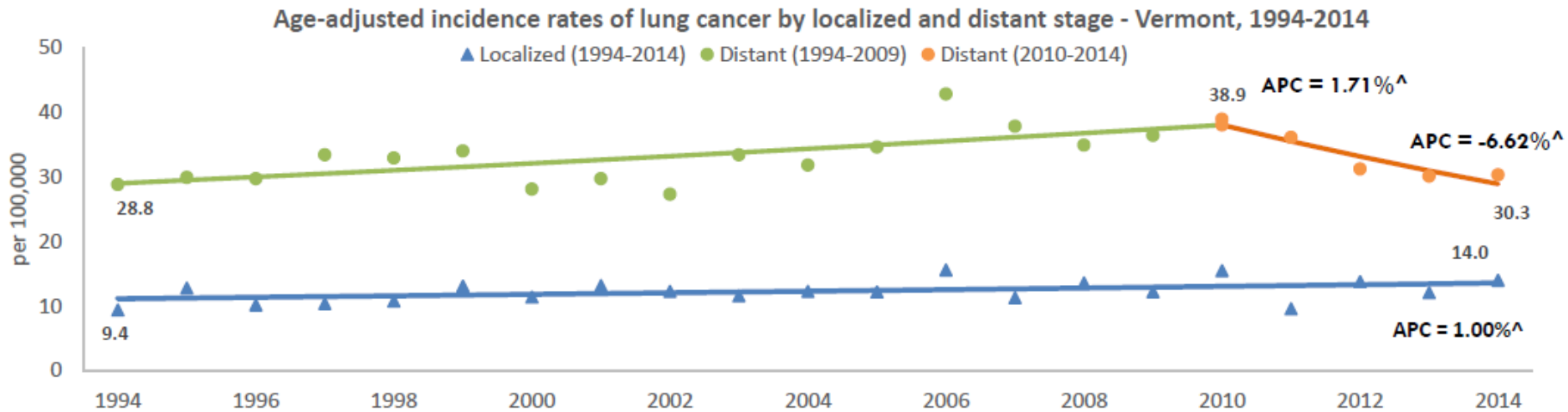
- Cancer is a leading cause of death in Vermont.
  - More Vermonters are diagnosed with lung cancer than any other cancer type.
  - Lung cancer incidence in Vermont is higher than the U.S. rate.
- On average, 379 Vermonters die annually from lung cancer (VT Vital Statistics, 2010-2014).
- Lung cancer is often diagnosed at a more distant stage than other cancer types.

# Background



# Age-adjusted incidence of lung cancer – Vermont, 1994-2014

- In Vermont approximately 523 new cases of lung cancer are diagnosed each year (VCR, 2010-2014).
- The age adjusted incidence rate of lung cancer (65.1 per 100,000) is higher than the U.S. rate (61.2 per 100,000).
- Between 1994 and 2009 the incidence lung cancer diagnosed at a distant stage increased annually by almost two percent before decreasing annually by almost seven percent between 2010 and 2014.
- Between 1994 and 2014 the incidence lung cancer diagnosed at a localized stage increased annually by one percent.



^Annual Percent Change (APC) is used to measure trends in cancer rates over time where cancer rates are assumed to change at a constant percentage of the rate of the previous year. In this document, the APC is reported when it is significantly different from zero (alpha = 0.05).

# Background

- In 2013, the United States Prevention Services Task Force recommended annual low-dose computed tomography (LDCT) screening for high risk adults.

## Who is high-risk?

- 55-80 years of age
- 30+ pack/year smoking history
- Current cigarette use or discontinuation in last 15 years

# Purpose

- ❑ To describe the needs of facilities in providing lung cancer screening
- ❑ To identify the gaps in access and availability of screening across the state
- ❑ To evaluate concurrent tobacco cessation efforts

# Methods

- Survey was emailed to Director of Radiology/Imaging Services or, in some cases, a different provider (N=16).
- Survey contained 27 questions.
- Data were collected, de-identified and entered into Excel before being analyzed by SAS 9.3.

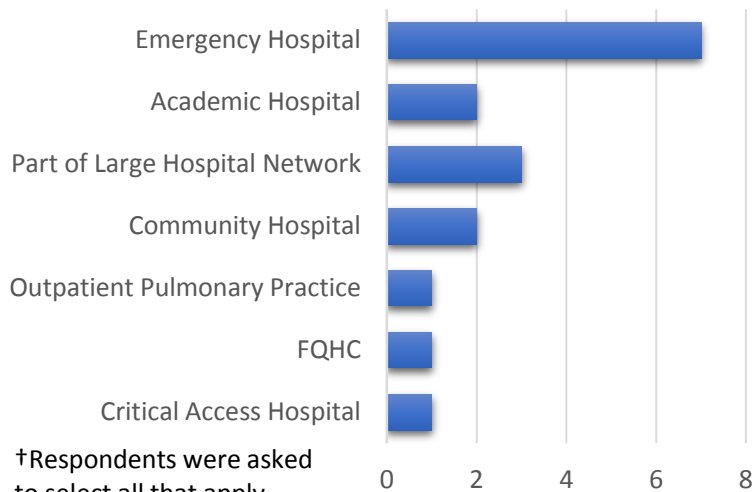
# Response Rate

- Out of the 16 surveys that were distributed, one facility declined to participate. Twelve facilities (75%) responded, and of those 12 facilities, eight currently offer lung cancer screening (LCS) and could answer survey questions regarding LCS.



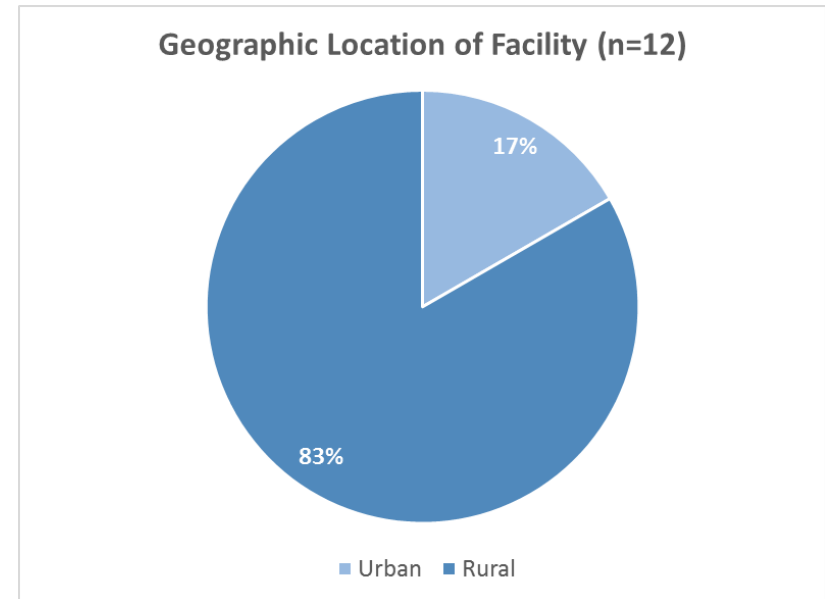
# Facility Demographics

**Facility Type (n=12)†**



† Respondents were asked to select all that apply

**Geographic Location of Facility (n=12)**

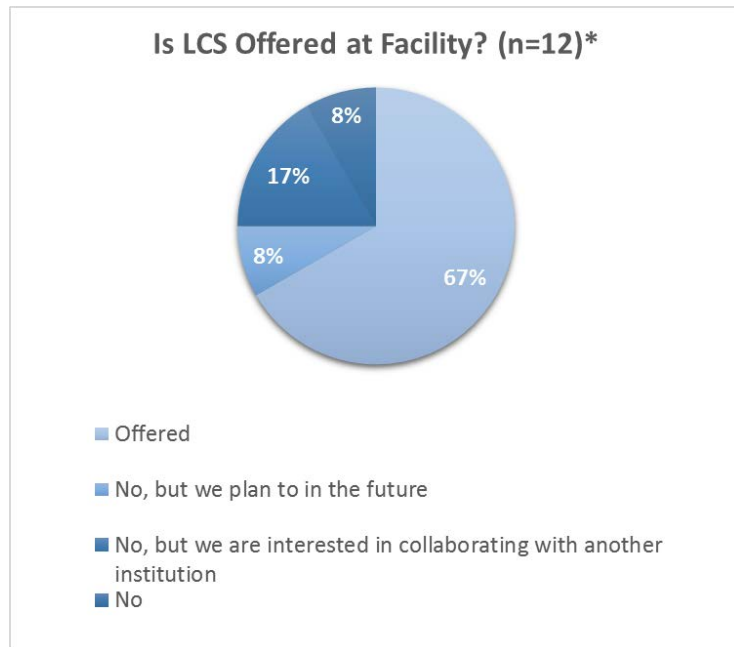


**Number of Specialists Per Hospital \***

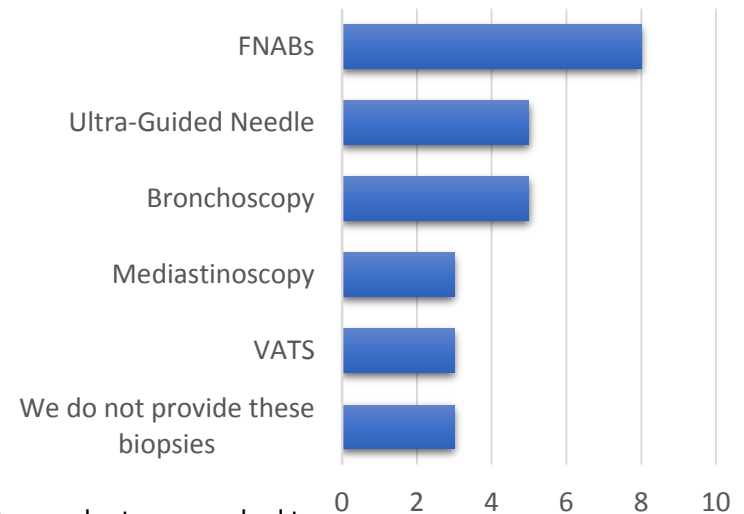
	Mean	Median
<b>Thoracic Radiologists (n=9)</b>	1	0
<b>General Radiologists (n=12)</b>	33	4
<b>CT Technologists (n=12)</b>	12	10

\* Numbers reflect both full-time staff and per-diem staff

# Is LCS offered at the facility?



## Types of Lung Biopsies Performed (n=12)†



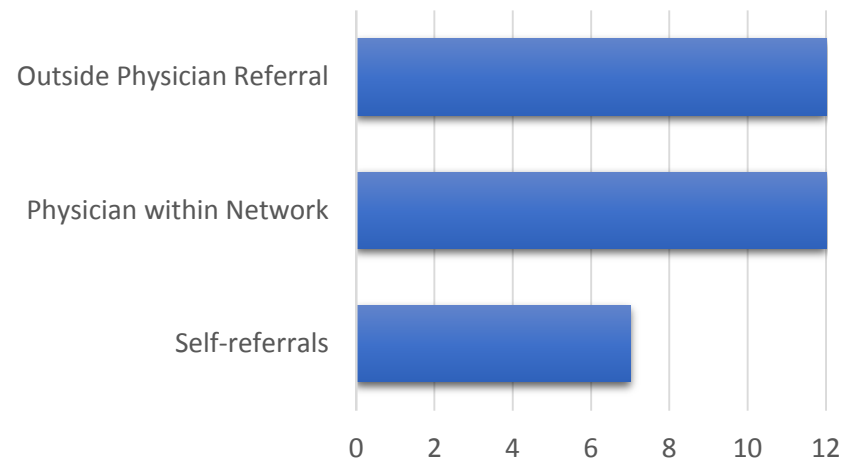
† Respondents were asked to select all that apply

FNABs = Fine Needle Aspiration Biopsies

VATS = Video-Assisted Thoracoscopic Surgery

# How are patients referred?

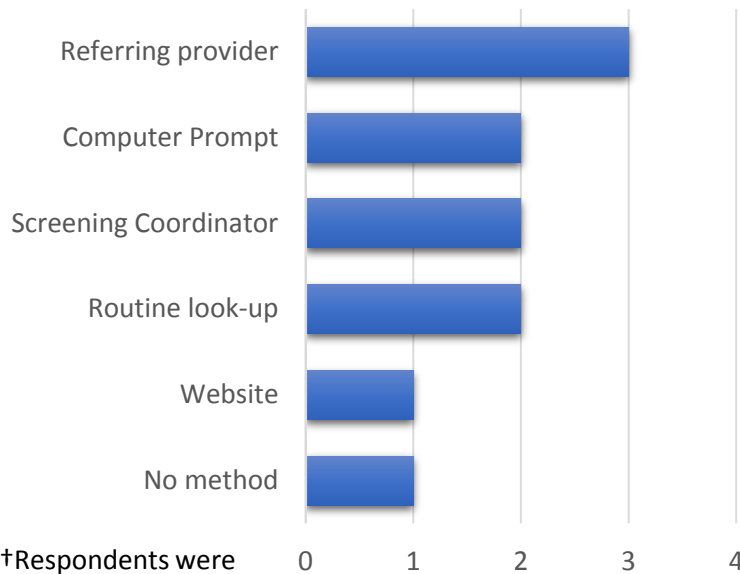
How Patients are Referred (n=12)†



†Respondents were asked to select all that apply

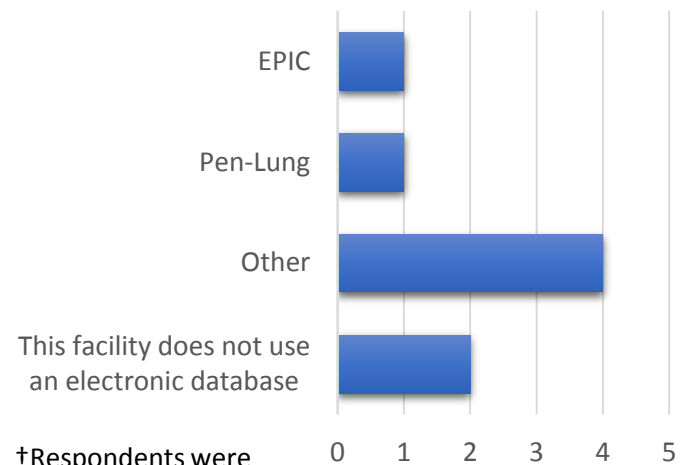
# How are patients identified?

Methods Used to ID LCS Patients (n=7)†



†Respondents were asked to select all that apply

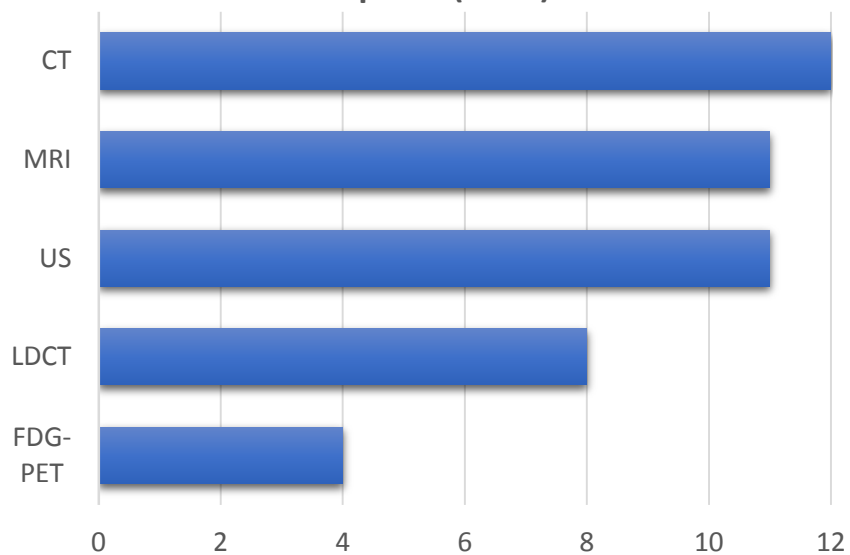
Software Used for Lung Cancer Screening Tracking Letters (n= 7)†



†Respondents were asked to select all that apply

# Which services are offered by the facility?

Type of Imaging Services Offered at All Hospitals (n=12)<sup>†</sup>



<sup>†</sup>Respondents were asked to select all that apply

CT = Computer tomography

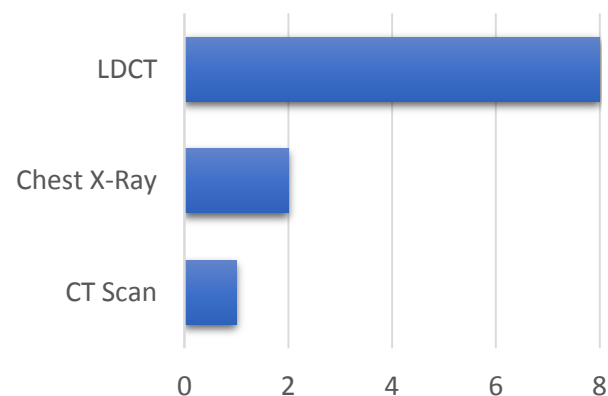
MRI = Magnetic resonance imaging

US = Ultrasound

LDCT = Low-dose computed tomography

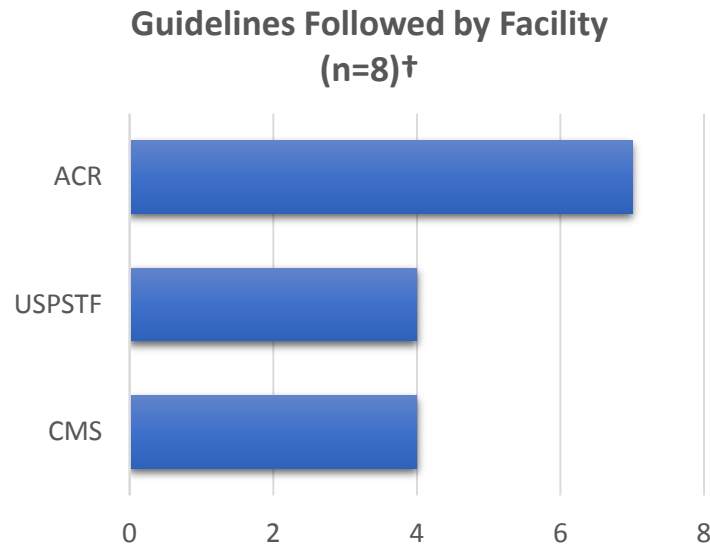
FDG-PET = Fluorodeoxyglucose-positron emission tomography

Types of Lung Cancer Screening Offered (n=8)<sup>†</sup>



<sup>†</sup>Respondents were asked to select all that apply

# Which guidelines do facilities use?

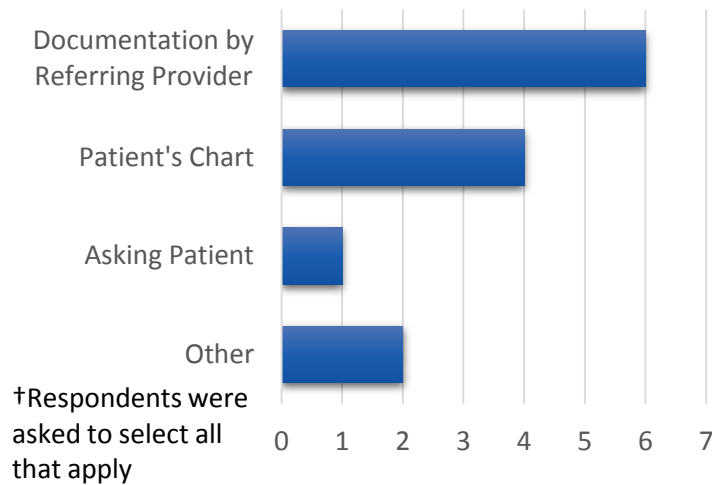


† Respondents were asked to select all that apply

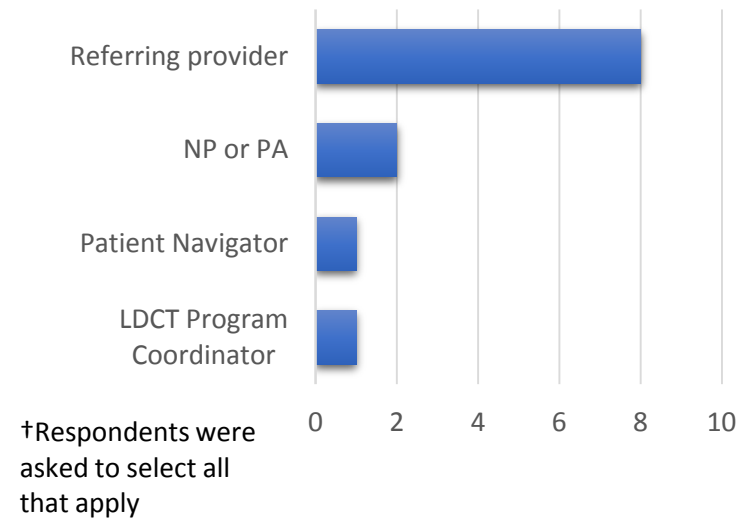
ACR – American College of Radiology  
USPSTF – United States Preventive Services Task Force  
CMS – Centers for Medicare & Medicaid Services

# What is the process for shared decision making?

### Proof Patient has Completed Shared Decision-Making (n=8)†

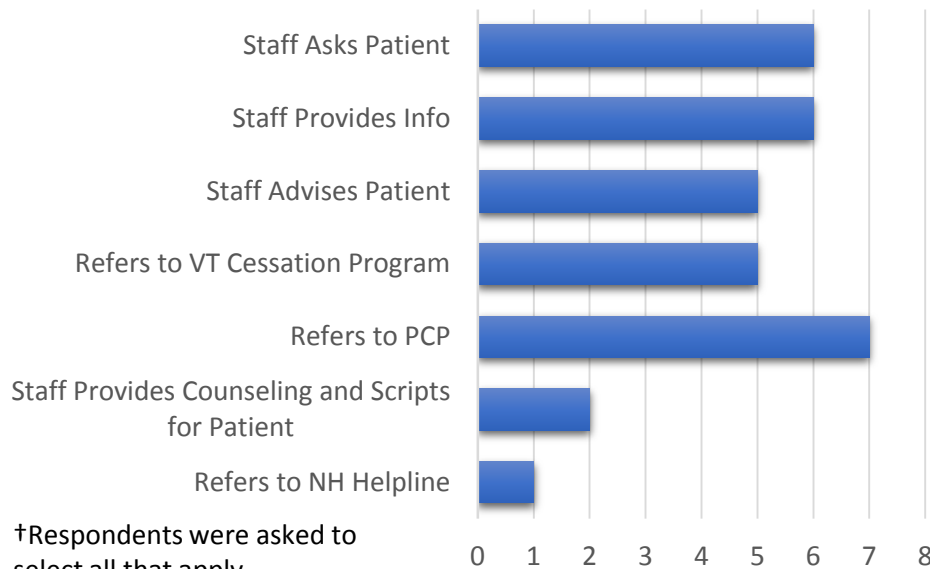


### Staff Involved in Shared Decision-Making (n=8)†

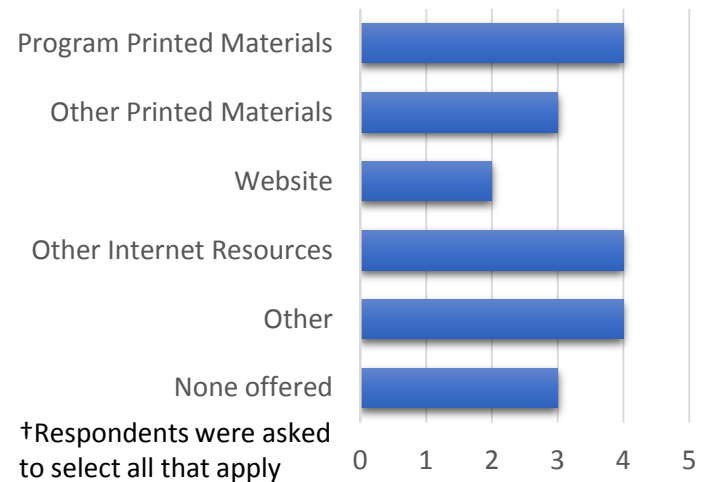


# What resources are provided to the patient?

### How Staff Addresses Smoking Treatment (n=11)†



### Program-Provided Lung Cancer Resources (n=8)†







## □ Questions?

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# Data Notes

**Vermont Cancer Registry (VCR):** The Vermont Cancer Registry (VCR) is Vermont's statewide population-based cancer surveillance system. The registry collects information about all cancers (except non-melanoma skin cancers and carcinoma in situ of the cervix) and all benign brain tumors diagnosed in Vermont. All statistics exclude in situ carcinomas except urinary bladder, unless indicated otherwise. Vermont cases include Vermont residents only. Incidence rates are per 100,000 and are age adjusted to the 2000 U.S. standard population. Incidence was coded using the International Classification of Disease (ICD) for Oncology (ICD-O). A reporting delay by Department of Veterans Affairs (VA) has resulted in incomplete reporting of Vermont VA incident cases in 2011, 2012, 2013, and 2014. Stage of disease at diagnosis is SEER Summary Stage.

**NPCR and SEER Incidence 1999-2014 Database (NPCR & SEER):** The U.S. incidence rates are based on the National Program of Cancer Registries (NPCR) and the Surveillance, Epidemiology, and End Results (SEER) Program Incidence State Restricted Access Data File (1999-2014). A reporting delay by Department of Veterans Affairs (VA) has resulted in incomplete reporting of VA hospital cases in 2011 through 2014.

### Appendix 3. VTAAC 2017 Lung Cancer Screening Facility Survey

Vermonters Taking Action Against Cancer's Lung Cancer Screening Task Force is conducting a survey of Vermont's lung cancer screening facilities to assess the needs of facilities in providing lung cancer screening and to identify the gaps in access and availability of screening across the state.

Please have this survey completed by the person most knowledgeable about your radiology department; please help get it to the right person if it's not you.

Responses to this survey will be held in confidence; data will be released only in aggregate.

If you currently work at multiple facilities, please fill this out for the facility to which it was addressed.

#### Facility Information

Name (Click or tap here to enter text.)

Location (Click or tap here to enter text.)

#### Information on Person Completing Survey

Name (Click or tap here to enter text.)

Title (Click or tap here to enter text.)

Role in established lung cancer screening or in one under development (if applicable) (Click or tap here to enter text.)

E-mail (Click or tap here to enter text.)

Phone Number (Click or tap here to enter text.)

#### Facility Services Offered

1. What type of imaging series are offered at this facility? (Select all that apply)

Computed Tomography (CT)

Low Dose CT (LDCT)

Fluorodeoxyglucose-PET (FDG-PET)

Magnetic Resonance Imaging (MRI)

Ultrasound (US)

2. What types of lung biopsies are performed at this facility?

CT-Guided Fine-Needle Aspiration Biopsy (FNABs)

Video-Assisted Thoracoscopic Surgery (VATS)

Mediastinoscopy

Bronchoscopy

Ultrasound Guided Needle Biopsy

We do not provide any of these biopsies

3. Is lung cancer screening offered at this facility?

Yes, since Click or tap here to enter text. (Year)  Go to Question 5

Not currently, but it will be offered in the future

No, but we are interested in collaborating with other institutions

No

4. If you answered 'no' or 'not currently' to #3, when does this facility plan to start offering lung cancer screening?

In 2017

In 2018

Other: (Click or tap here to enter text.) ->Go to Question 21.

5. If you answered 'yes' to #3, is this facility an American College of Radiology (ACR) designated Lung Cancer Screening Center?

Yes

No

Not currently, but we would like to be in the future

6. Does your facility use Computer-Aided Detection (CAD) in screening for lung cancer?

Yes

No

Not currently, but we plan to in the future

7. If yes, where do you (or where will you) use CAD? In house or outside this facility? If you refer out, what process do you use a hospital-based or virtual process for outside referral? (Click or tap here to enter text.)

Lung Cancer Screening

8. Has this facility implemented guidelines for lung cancer screening?
- Yes
  - Not currently, but we plan to in the future
  - No -> Go to Question 22.
9. If yes, which recommended guidelines does this facility follow or plan to follow for implementing lung cancer screening? (Select all that apply)
- U.S. Preventive Services Task Force (USPSTF)
  - American College of Radiology (ACR)
  - National Comprehensive Cancer Network (NCCN)
  - Centers for Medicaid and Medicare Services (CMS)
  - Other: (Click or tap here to enter text.)
10. Which screening test(s) does this facility use for lung cancer screening? (Select all that apply)
- Chest X-Ray
  - Sputum Cytology
  - CT
  - LDCT
11. What is the CTDI setting at this facility for a LDCT? (Click or tap here to enter text.)
12. Do you use any other dose-saving features? Please list. (Click or tap here to enter text.)
13. What is the average number of patients seen at this facility for lung cancer screening per month in the last year? (Click or tap here to enter text.)
14. What is the average number of patients seen at this facility per month in the last year? (Click or tap here to enter text.)
15. If a software system is used for lung cancer screening tracking letters, which of the following does this facility use (if handled by another facility please indicate where)?
- EPIC
  - Aspen
  - Pen-Lung
  - Cerner
  - Other: (Click or tap here to enter text.)
  - This facility does not use an electronic database
16. Who or what helps identify lung cancer screening patients and encourages lung cancer screening? (Select all that apply)
- Special notation or flag in the patient header of the patient chart
  - Computer prompt or Best Practices Alert (BPA)
  - Referring provider
  - Routinely looking it up in the medical record at the time of visit
  - Screening Coordinator (nurse, administrator, etc.)
  - Referral to outside facility
  - Centers for Medicare and Medicaid Services (CMS) tracking
  - Other mechanism: Click or tap here to enter text.
  - None
17. Is your facility participating in the American College of Radiology lung cancer screening registry?
- Yes
  - No

Shared Decision Making

18. For patients with insurance (e.g. Medicare) that requires a shared decision making visit, who conducts the shared decision making discussion? (Please check all that apply)

Shared decision making involves a review and discussion of the pros and cons of LDCT lung cancer screening by the patient and a healthcare provider.

- Referring providers (PCPs, NPs, PAs and specialists)
- LDCT-Lung Screening Program Coordinator
- Patient Navigator
- Nurse
- Nurse Practitioner or Physician Assistant Staff
- Radiologist
- None of the Above
- Other (please specify): (Click or tap here to enter text.)

19. For patients with insurance that does not require shared decision making about lung cancer screening does your program still require it?
- Yes
  - No
  - Don't Know
20. How do you ascertain that a patient has undergone shared decision making before the first screen? (Please check all that apply)
- Documented by referring provider on the order form
  - Documentation in the patient's chart
  - Asking the patient
  - Other (please specify): (Click or tap here to enter text.)
21. What resources on lung cancer screening does your program offer to patients?
- Print materials prepared by your program
  - Other print materials
  - Information on your program's website
  - Direction to other Internet resources (e.g. video, risk calculators, websites)
  - Other (please specify): (Click or tap here to enter text.)
  - None of the above
22. How does your program staff address smoking treatment for patients (Please check all that apply):
- Staff asks smoking status at most/all patient interactions (at the time of LDCT scan, during follow up calls, etc.)
  - Advise all current smokers to seek some support for quitting
  - Provide information on smoking treatment resources
  - Counseling and prescriptions for nicotine replacement therapy (NRT) are provided by program staff
  - Refer patients to 802Quits phone, web, or in-person program (Vermont Quit Partners)
  - Refer patients to New Hampshire Tobacco Helpline or Quitworks-NH
  - Refer patients to the PCP for smoking treatment advice
  - Other (please specify): (Click or tap here to enter text.)

#### Facility Demographics

23. How would you describe this facility? (Select all that apply)
- Private Solo or Group Practice
  - Freestanding Clinic (not part of a hospital outpatient department)
  - Community Health Center (Federally Qualified Health Center (FQHC), Federally Funded Clinic, or "Look-Alike" Clinic)
  - Non-Federal Government Clinic (states, county, city, maternal and child, etc.)
  - Health Maintenance Organization or other prepaid practice (ex. Kaiser Permanente)
  - Faculty Practice Plan (an organized group of physicians that treat patients referred to an academic medical center)
  - Hospital Emergency or Hospital Outpatient Department
  - Academic Hospital Facility
  - Part of a large hospital network
  - Other: (Click or tap here to enter text.)
24. How are patients referred to this facility for general services? (Select all that apply)
- Outside Physician Referral
  - Physician Referral within Network/Health System
  - Patient Self-Referral
  - Other (Click or tap here to enter text.)
25. How would you describe the geographic location of this facility?
- Rural
  - Suburban
  - Urban
26. How many board certified radiologists are at this facility (please indicate if '0')?
- Number of Thoracic Radiologists: (Click or tap here to enter text.)
  - Number of General Radiologists: (Click or tap here to enter text.)
27. How many CT technologists work at this facility (please indicate if '0')? (Click or tap here to enter text.)

Thank you for participating in this study!

If you would like to learn more about Vermonters Taking Action Against Cancer (VTAAC) and the Lung Cancer Screening Task Force, please go to <http://vtaac.org> or contact VTAAC Coordinator, Jessica French, at [Jessica.French@cancer.org](mailto:Jessica.French@cancer.org).

If there is anything else you'd like to tell us about lung cancer screening at this facility or in general, please use the space provided below. (Click or tap here to enter text.)