

# Implementing a Lung Cancer Screening Program in Rural Arkansas

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CARTI

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# Plan

- Barriers to Lung Cancer Screening in Rural Areas
- Cancer in Arkansas
- The urgency to address lung cancer mortality in Arkansas
- What did CARTI do
  - The three phases of building the lung cancer screening program at CARTI
- Remaining challenges

# Barriers to Lung Cancer Screening in Rural Areas

- Limited Access to Healthcare
- Limited awareness of health care providers of the importance of lung cancer screening
- Lower Income and Education
- Cultural Factors
- Geographic Isolation
- Higher Smoking Rates

# Addressing Geographic Barriers – 1

## **Mobile CT Units**

- Advantages
  - Bringing CT screening directly to rural communities through mobile units can overcome the challenge of limited access to facilities
- Disadvantages
  - Diagnostic tests can not be performed using the same mobile unit
  - The mobile unit can not be in more than one site at a time
  - Expensive to acquire and maintain

# Addressing Geographic Barriers – 2

## **Strategic Placement of Screening Centers**

- **Advantages**

- Focus on placing accredited screening centers in areas with lower education levels and higher cancer incidence rates to improve access
- Can be used to perform the additional diagnostic tests
- Can be used for educational goals

- **Disadvantages**

- Very expensive and cannot be stand-alone programs

## **Telemedicine**

- **Advantages**

- Utilizing telemedicine for consultations and follow-up care can further enhance accessibility in remote areas.

# Addressing Patient-Level Barriers:

- **Trust and Engagement:**
  - This can involve community outreach, culturally sensitive communication, and building relationships with healthcare providers
- **Smoking Cessation:**
  - Rural areas often have higher rates of smoking
  - Integrating smoking cessation programs with lung cancer screening is vital.
- **Shared Decision-Making:**
  - Involve patients in decisions about screening, explaining the benefits and risks, and addressing concerns
- **Financial Barriers:**
  - Ensure that screening is accessible and affordable for all, including those with limited financial resources

# Improving Screening Uptake

- Targeted Messaging:
  - Use messaging that is tailored to the specific needs and concerns of at-risk rural populations

# Endure the Dirt 5k Cancer Mud Run

Sat March 8, 2025

Stuttgart, AR 72160 US [Directions](#)

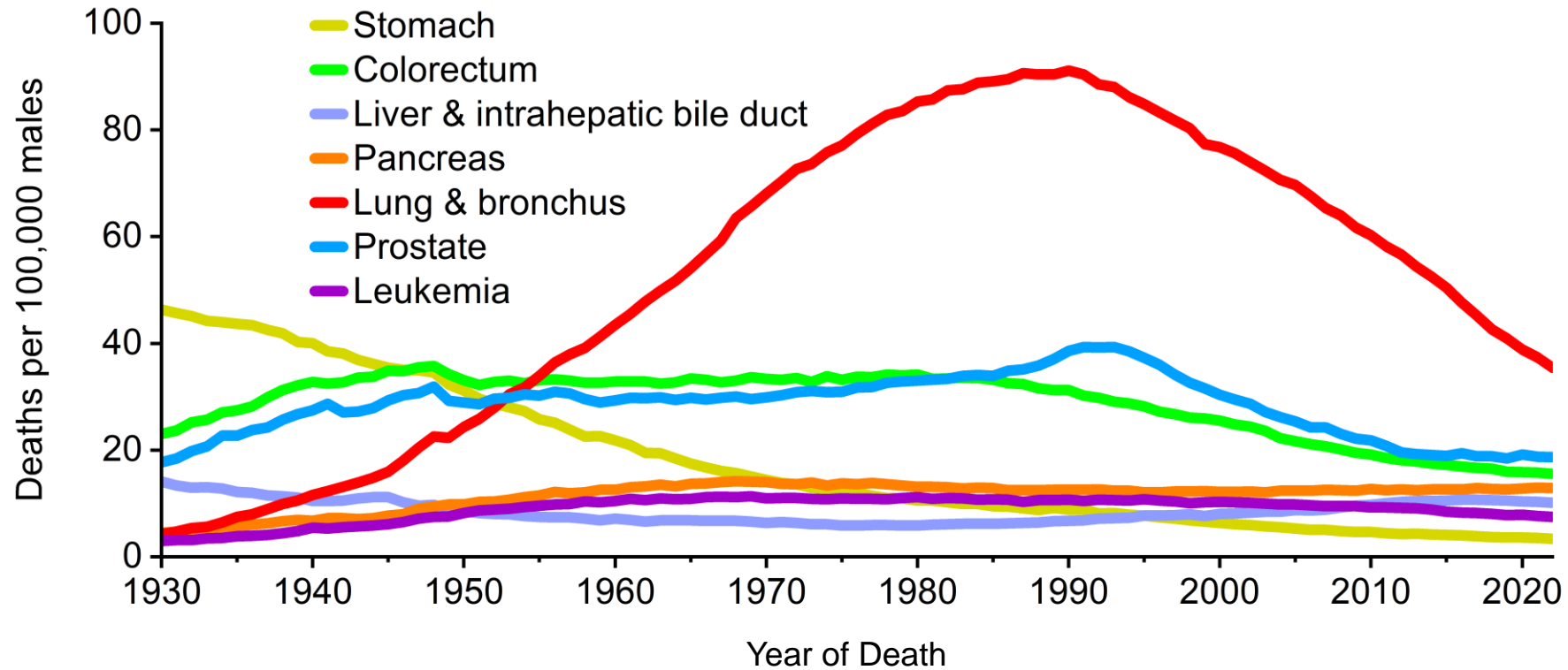




# Improving Screening Uptake

- Targeted Messaging:
  - Use messaging that is tailored to the specific needs and concerns of the rural at-risk populations
- Promote Awareness:
  - Increase awareness of lung cancer screening through community events, educational materials, and partnerships with local organizations
- Collaboration:
  - Foster collaboration between healthcare providers, community organizations, and policymakers to create a coordinated approach to lung cancer screening in rural areas
- Data-Driven Approach:
  - Use data to identify areas with high-risk populations and tailor interventions accordingly

## Trends in cancer death rates among males, US, 1930-2022

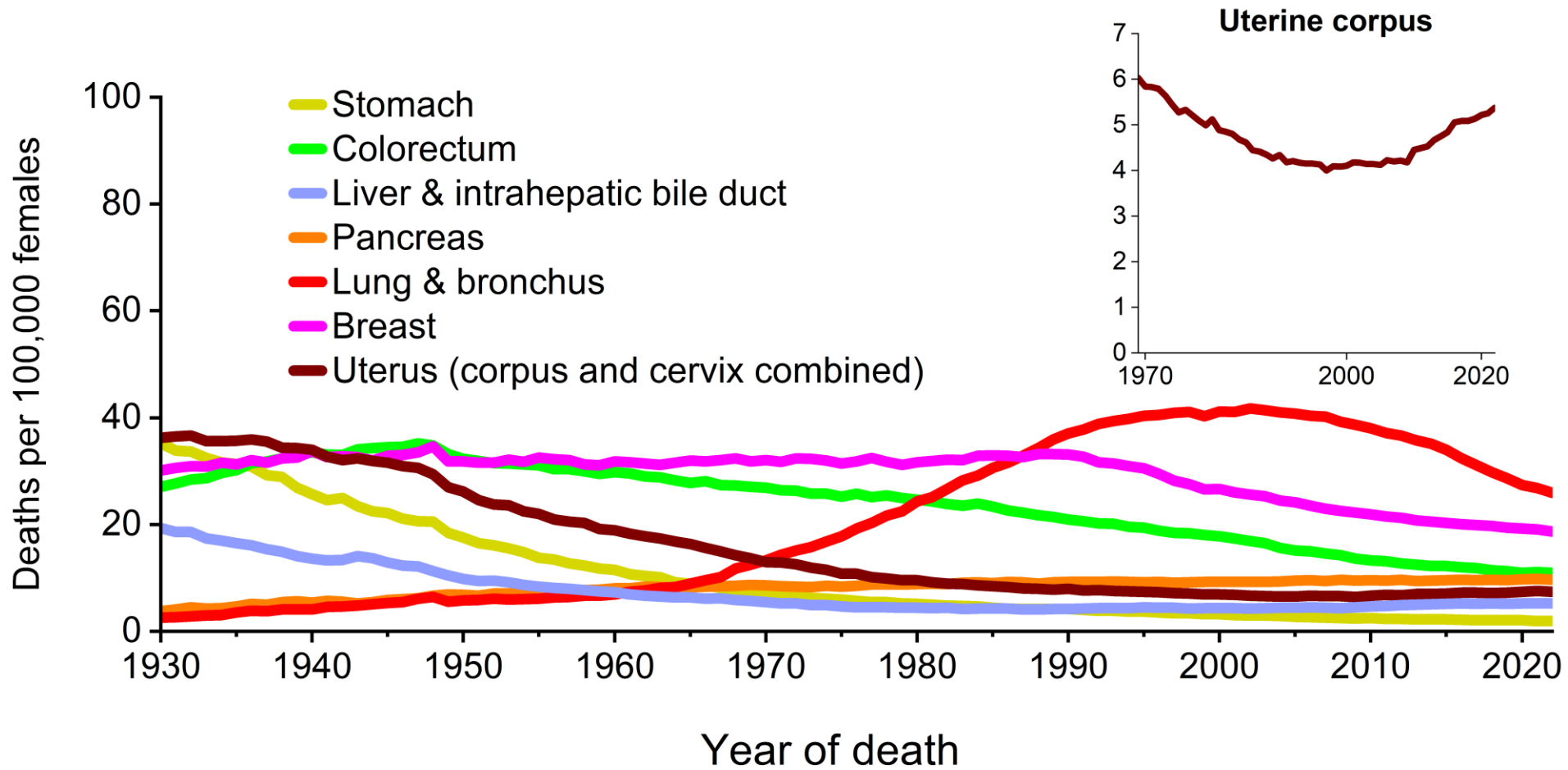


Rates are age adjusted to the 2000 US standard population and exclude deaths in Puerto Rico and other US territories. Due to improvements in classification, site-specific information differs from contemporary data for cancers of the liver, lung and bronchus, and colon and rectum.

Data source: National Center for Health Statistics, Center for Disease Control and Prevention, 2024.

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# Trends in cancer death rates among females, US, 1930-2022



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# How About Arkansas?

- 19,700 Arkansans will be diagnosed with cancer this year

	<b>Total</b>	<b>Breast</b>	<b>Colon</b>	<b>Lung</b>	<b>Prostate</b>	<b>Melanoma</b>	<b>Brain</b>
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# Why Should we Do Lung Cancer Screening?

- Lung cancer survival is stage-dependent

<b>Stage</b>	<b>Five-Year survival</b>	<b>Percentage of patients</b>
I	>75%	25%
II - III	20%	35%
IV	<5%	40%

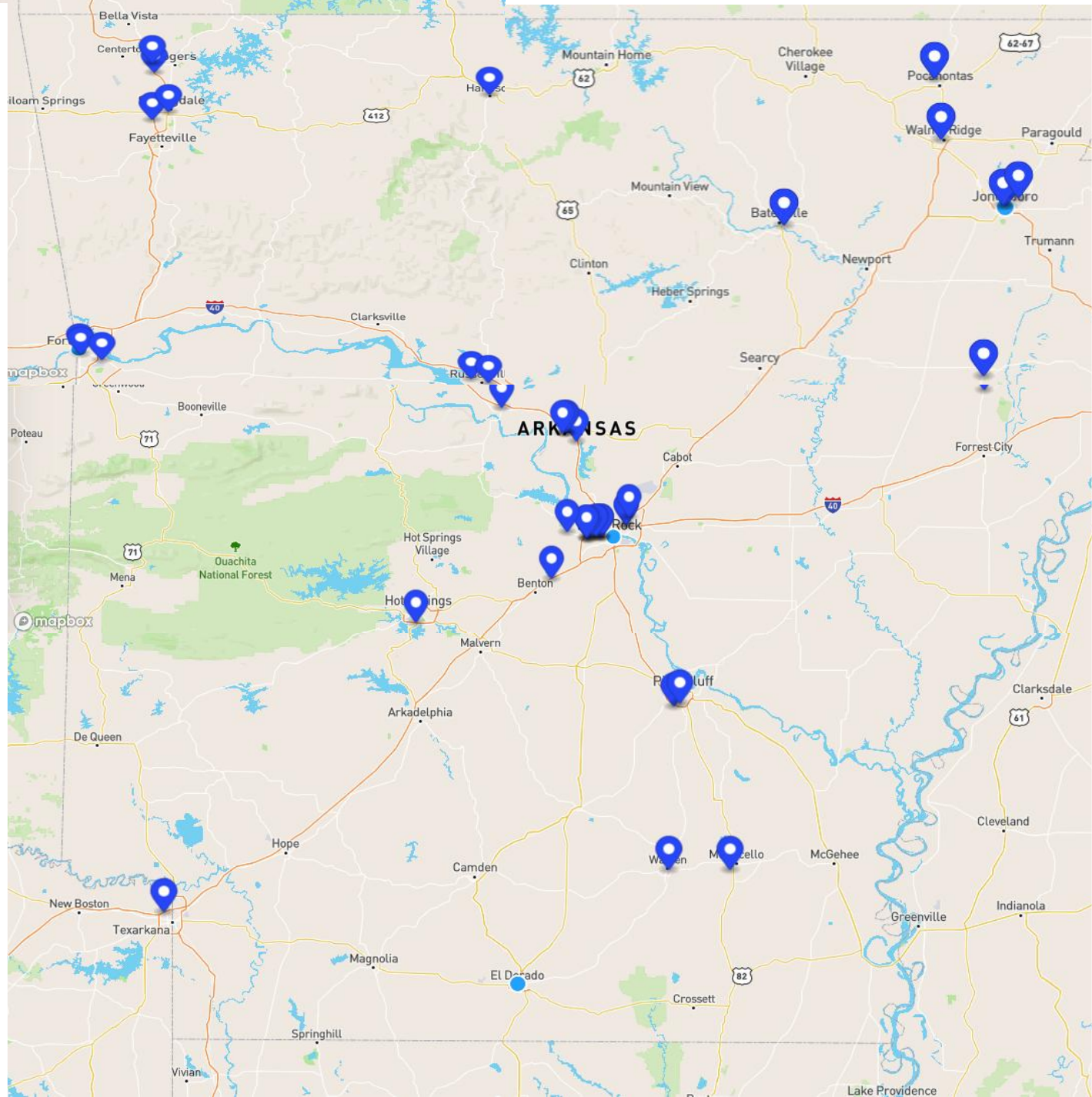
# Who Should be Screened for Lung Cancer?

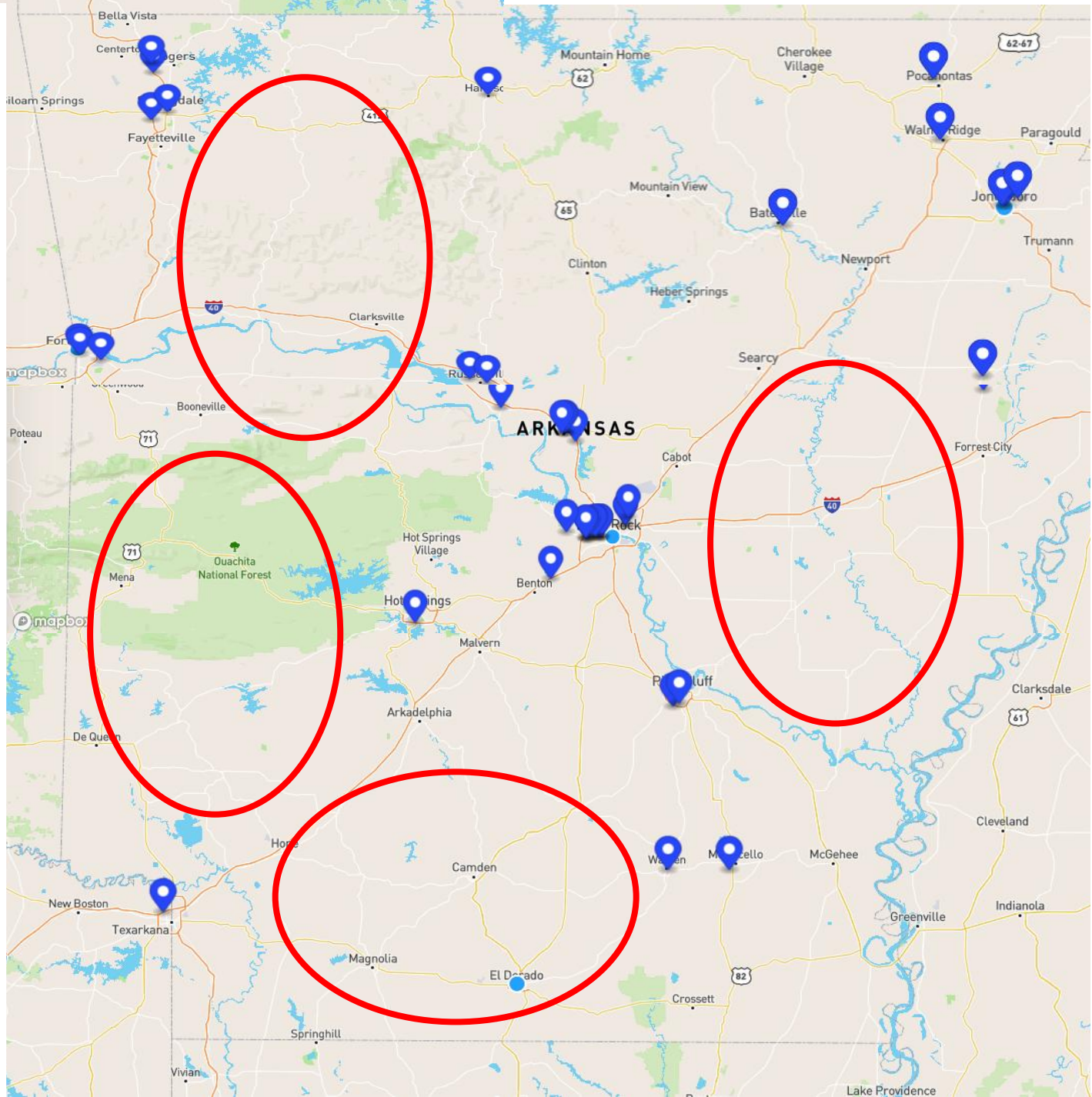
- Individuals between 50 and 80 who
  - Smoked the equivalent of 1 pack/day for 20 years
  - Do not have lung cancer diagnosis
  - Have no symptoms of lung cancer
  
- Individuals between 50 and 80 who
  - Smoked the equivalent of 1 pack/day for 20 years
  - Quit smoking less than 15 years ago
  - Do not have lung cancer diagnosis
  - Have no symptoms of lung cancer



# Arkansans at risk: 245,260

- Screened in 2020
  - 2.5% = 6131
- Screened in 2024
  - 5% = 12,263

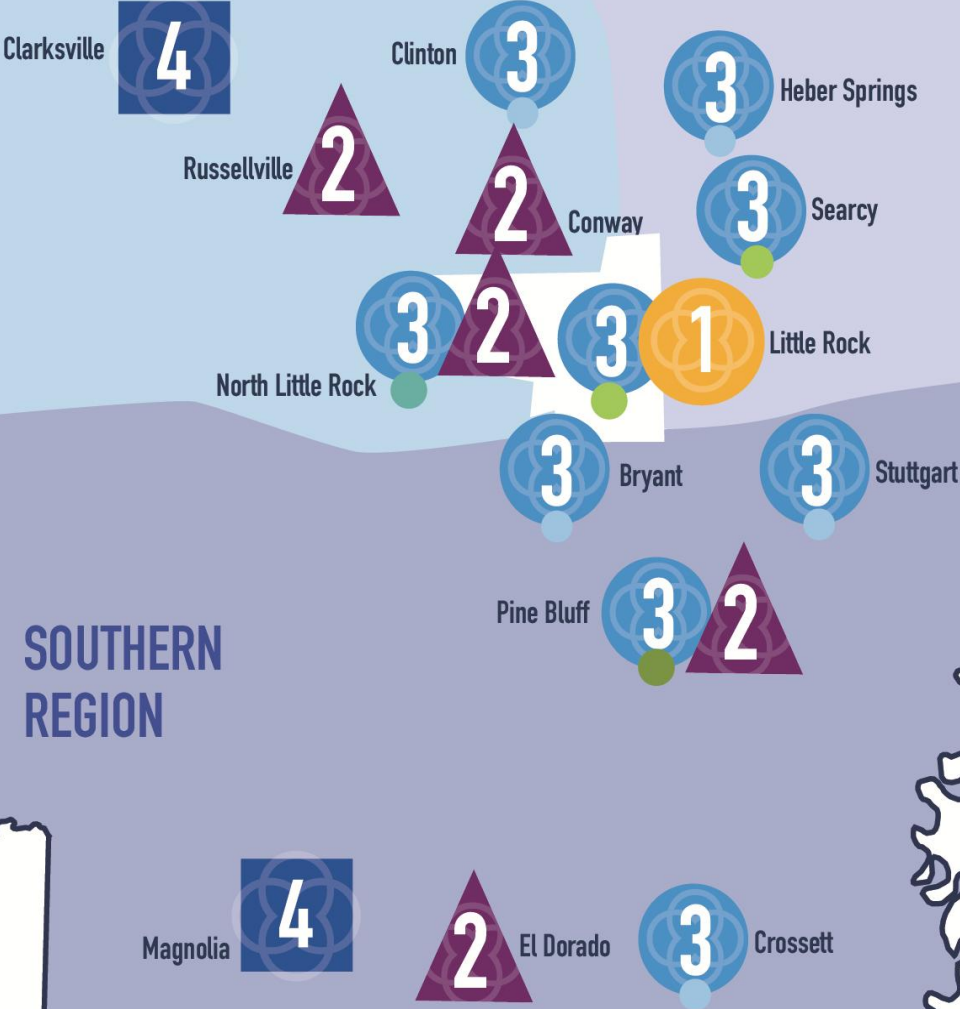




# CARTI Adopted Strategic Placement of Screening Centers in Arkansas

# NORTHWEST REGION

# NORTHEAST REGION



# SOUTHERN REGION



# Lung Cancer Screening at CARTI

2022

- CARTI performed 100 lung cancer screenings

Considering the heavy burden of lung cancer, CARTI made the decision to develop a network wide lung cancer screening

## Our Main Goal

To increase lung cancer screening in the state from 2.5% to 2.75% (a 10% increase), in the first year of our program's implementation. (ACP Screening Objective 1)

# Barriers to lung cancer screening in Arkansas

- The **lack of referral network** of primary care physicians (to refer at-risk-subjects)
- **Limited or no access** to a nearby screening facility (-ies)
- The **lack of a multidisciplinary team dedicated to lung cancer screening**
- The **limited availability of cancer care teams** (to manage those with abnormal findings)
- The **cultural reluctance** in minority communities
- The **lack of financial support**



# The project went through three phases

1. Infrastructure Building phase

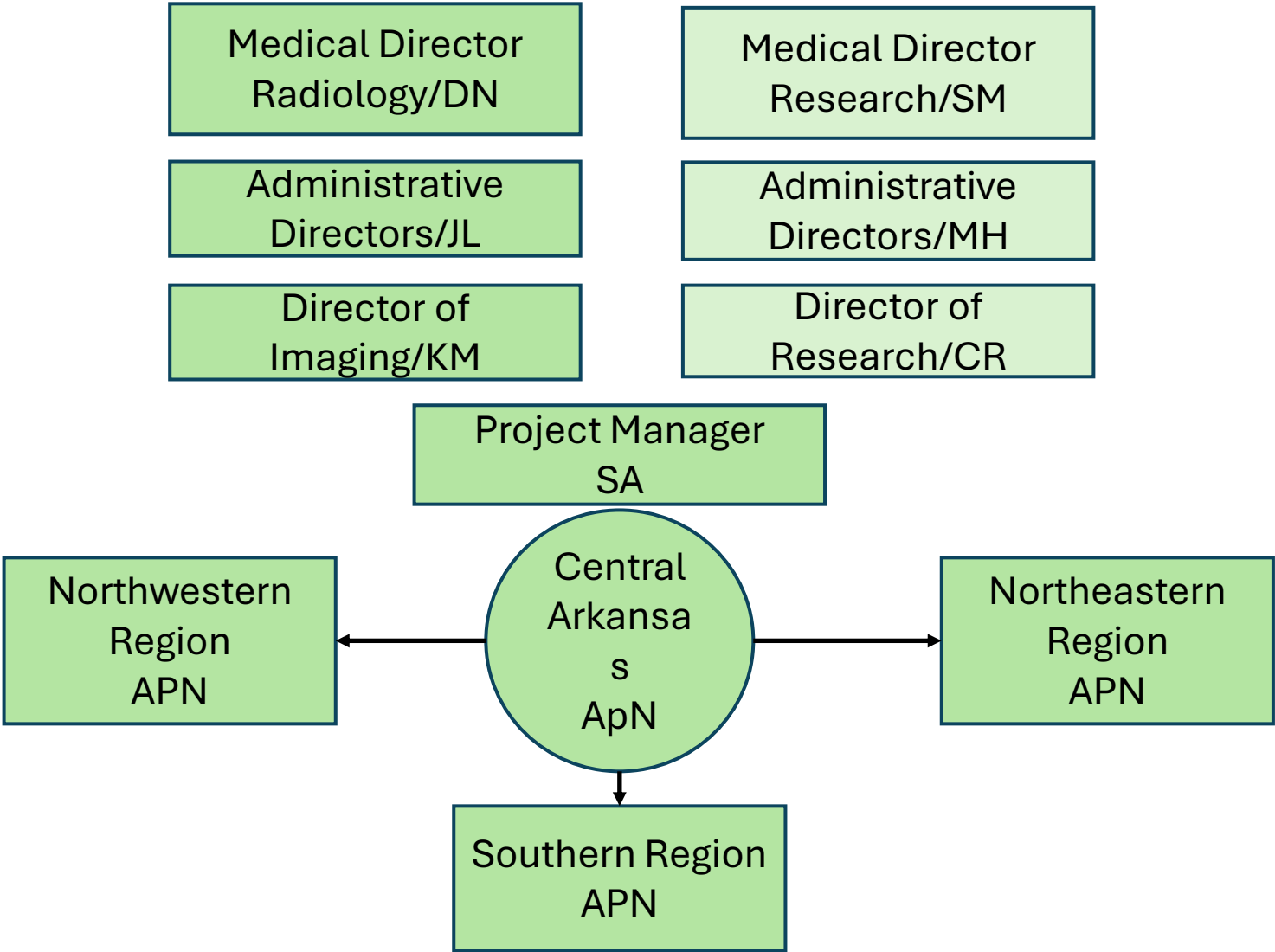
2. Expansion phase

3. Full deployment phase

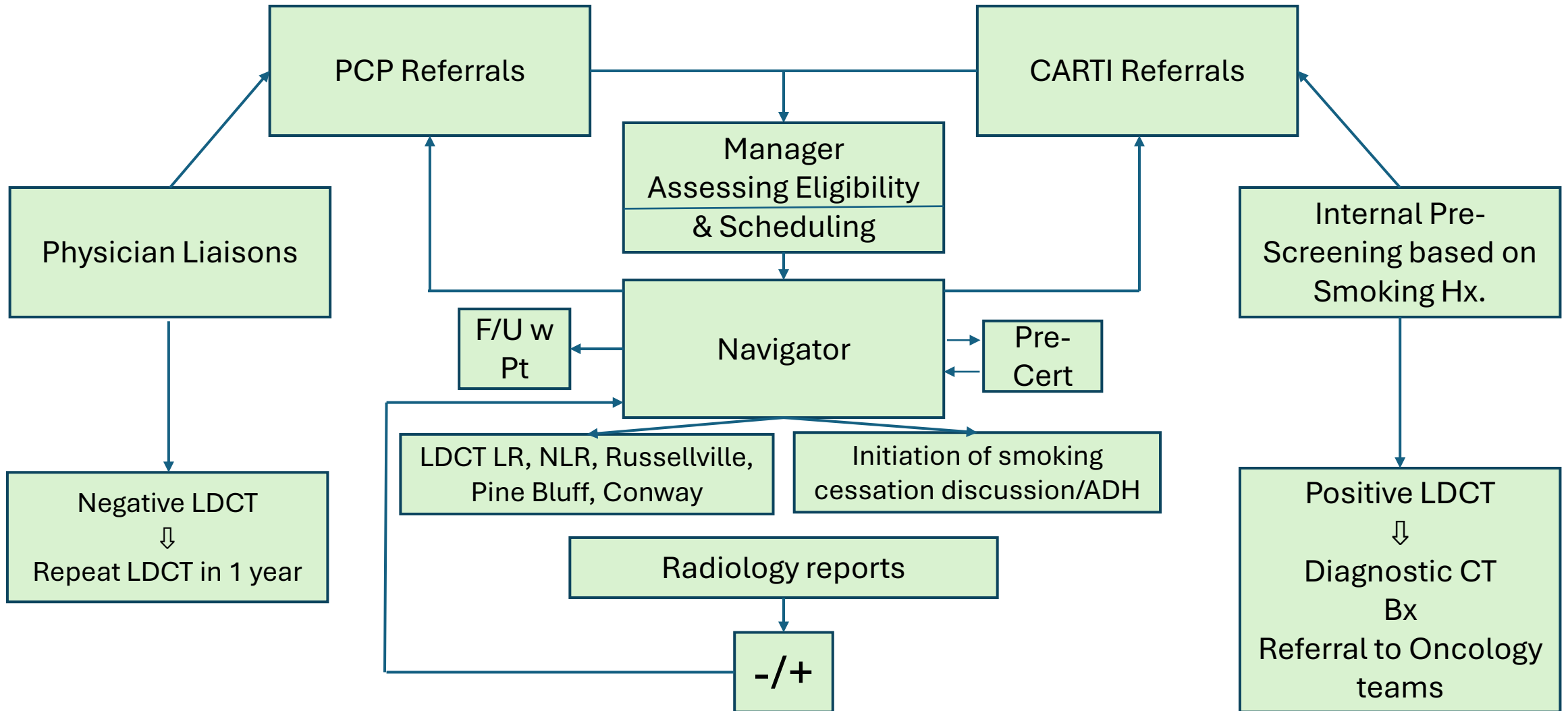
# Infrastructure Building phase – 1

- The main objectives of this phase were to
  - Develop a clinical and research team that covers the entire state
    - We recruited
      - A physician champion
      - A project manager
      - A navigator
      - Three staff members, to dedicate 15 % FTE to the program
    - We started an educational campaign of our personnel
    - Developed the SOPs and appropriate processes

# CARTI Lung Cancer Screening Program

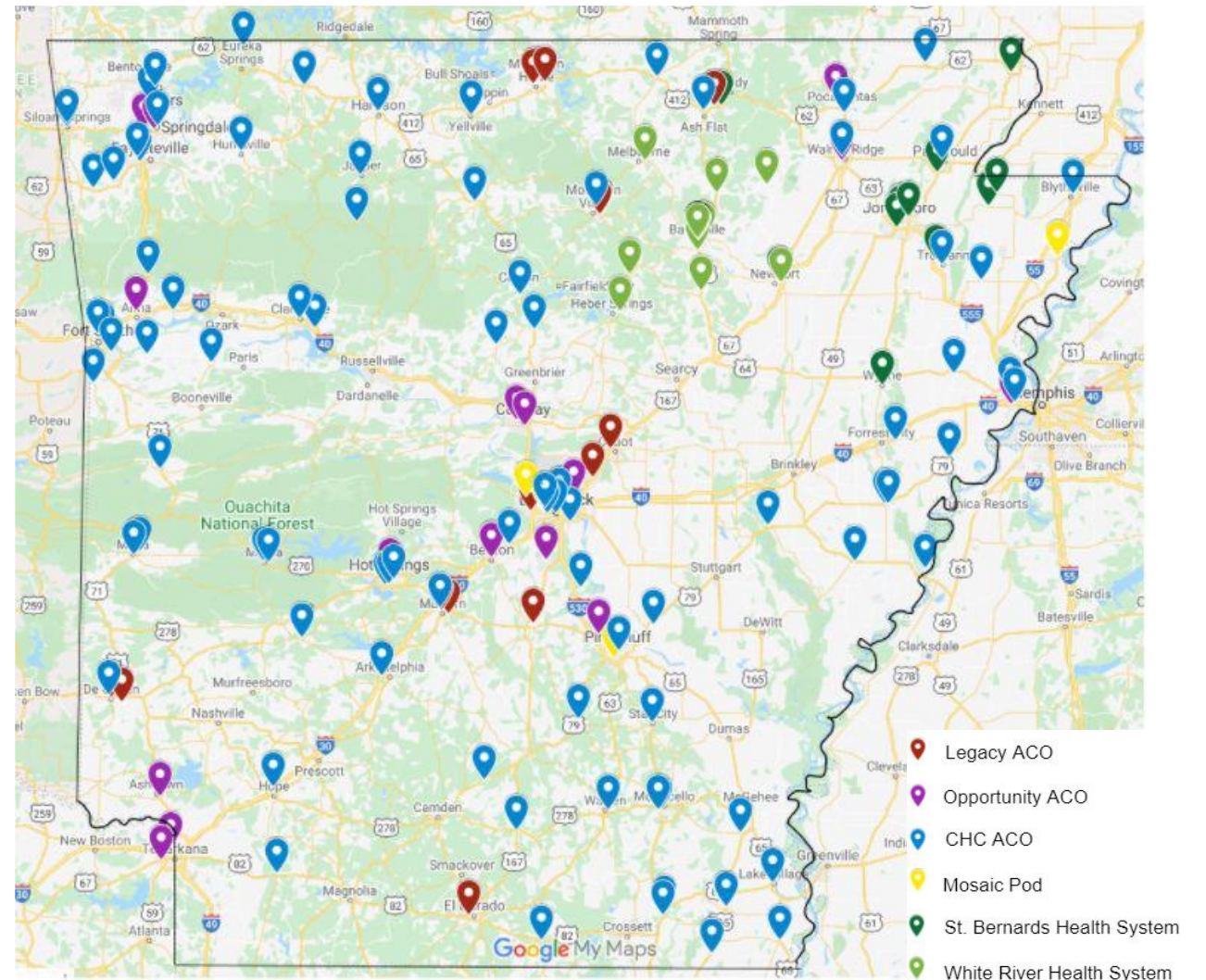


# Lung Cancer Screening Program Workflow



# Infrastructure Building phase – 1

- Build strong relationships with our referral base of PCPs (Aledade PCPs and others)
- Aledade is an Accountable Care Organizations (ACOs)
- More than 600 PCPs in AR



# Results of the first year

- The team was built qualified personnel recruited
- A Care Compact was signed with Aledade and many primacy care practices were visited
- Screened approximately 600 participants
- Emphasis on rural Arkansas and the red counties (at least 40% of the participants were from these areas)

# Financial Support

- The program was funded partially by grants from ACC for its three years of existence
- CARTI supported 2 thirds of the cost of the program
- We raised funds from philanthropy to support
  - Uninsured and underinsured patients
  - Transportation with gas vouchers

# Expansion – Year 2

- Expanded screening to additional areas
- Transferred the screening tasks to the Radiology Department
- Continued our educational effort with the “smoking cessation program” with a goal to get 10% of patients enrolled to discontinue smoking for more than six months
- **In 2023**
  - **We screened 900**
  - **Cancer diagnosed 8 cases of early-stage lung cancers**



# Full deployment - Year 3 (2024) and beyond

- The program is currently fully integrated in the Radiology Department
- We continued our educational effort to raise awareness about lung cancer screening and smoking cessation
  - PCP physicians
  - Our internal physicians
  - Meeting our people where they are
- **In 2024**
  - **1200 new participants underwent screening**
  - **Cancer detected: 10 (1 advanced stage and 9 early-stage cancers)**











ANNUAL BREAST CANCER EVENT  
**HONORING  
BILLIE JEAN "BJ" JACKSON**



Since 2014, we have raised awareness in the community through our Annual Breast Cancer event. Our breast cancer event is hosted every year in October to celebrate survivors and those impacted by the disease. Billie Jean "BJ" Jackson was known as a true warrior. Although her journey ended in February of 2000 her legacy lives on. During her battle over 20 years ago she never saw it as defeat, because she knew the ultimate goal was to stay strong, keep the faith and never give up.

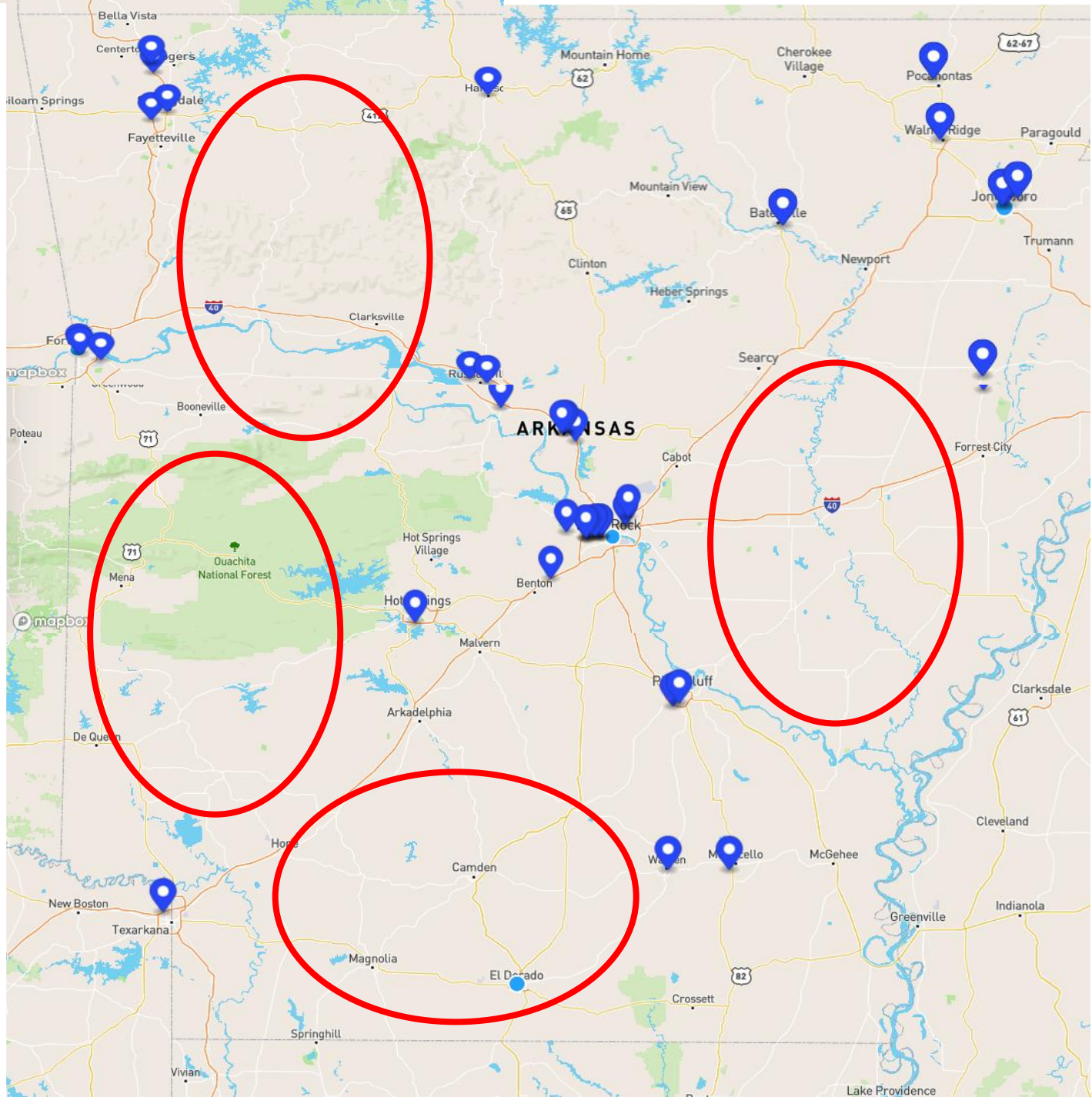
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# Challenges

- Getting the right software that allows us to follow the patient through their journey
- Maintaining the effort of raising awareness of providers and the population
- Lack of local smoking cessation program in our organization (we use the BeWell program of the department of health)
- Providing service to Arkansans living in the Medical deserts





Questions?