

# Lung Cancer Screening

## Development and replication of a decentralized program to increase access

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**BACKGROUND:** Throughout its evolution, lung cancer screening has remained an evidence-based tool to detect earlier-stage disease and improve survival. Many lung cancer screening programs are planned and developed in one central location, which limits patient access.

**OBJECTIVES:** The purpose was to develop necessary and complex decentralized program components in affiliation with a large cancer care delivery system and a regional community hospital network in northeast Florida.

**METHODS:** A program was pilot tested among five geographically diverse primary care offices for three years. The role of oncology nursing was crucial to achieve quality and efficacy in program development, regulatory compliance, and screening outcomes.

**FINDINGS:** The program resulted in an increase in lung cancer screenings within the large healthcare network. The percentage of early-stage lung cancers identified increased, which led to improved patient outcomes and survival.

### KEYWORDS

lung cancer screening; program development; oncology nursing; outcomes

### DIGITAL OBJECT IDENTIFIER

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**IN THE UNITED STATES, LUNG AND BRONCHUS CANCERS** are the number one cause of cancer mortality among women and men (Siegel et al., 2020). The survival rate for localized lung cancer is 57%; however, that number falls to 5% if disease is detected in a distant stage (stage IV) (Siegel et al., 2020). In Florida, the American Cancer Society estimates 18,150 new cases and 10,580 deaths in 2020, which reflect the highest numbers in the United States (Siegel et al., 2020). Only 3.2% of eligible individuals receive lung cancer screenings (LCSs) in Florida, which is below the national average of 5% (Fedewa et al., 2020). There is a need for preventive and screening services to improve patient outcomes.

Two large trials were conducted with the goal of reducing mortality by detecting more localized lung cancers. The National Lung Screening Trial resulted in a 20% mortality reduction with low-dose computed tomography (LDCT) (without contrast) (National Lung Screening Trial Research Team, 2011), and the Dutch–Belgian NELSON (Nederlands–Leuven Longkanker Screenings Onderzoek) trial demonstrated a reduction in mortality rate by 26% in men and 61% in women (de Koning et al., 2020). The Centers for Medicare and Medicaid Services (CMS, 2015) approved reimbursement for LCS using LDCT and specified guidelines to be followed. CMS (2015) required attestation of a shared decision-making visit (SDMV), which includes counseling on the risks and benefits of screening, smoking cessation and abstinence, and the importance of adherence to annual LCS examination. With the research and reimbursement provisions, many hospital networks sought to develop an LCS program, but the utilization has been poor.

### Background Setting

For individual practitioners, a referral for LCS is fairly straightforward if a centralized program and team offer all required components for quality and reimbursement. For example, a primary care provider can refer a patient to a centralized LCS program and the LCS team would ensure criteria were met, the SDMV and LDCT scan completed, and results provided to the patient and referring clinician. However, a more decentralized program is needed to increase patient access and outcomes across many communities. A decentralized