# Reveal for Lung Cancer

Reveal lung cancer risks hiding in plain sight



## AI-enabled lung cancer risk stratification designed to improve patient outcomes

Only 6.5% of eligible adults undergo recommended lung cancer screening.[1] That is part of the reason that 45% of non-small cell lung cancer diagnoses occur at Stage 4, when the 5-year survival rate is only 9%.[2]

What if you had new tools and methods to increase lung cancer screening and early diagnosis among eligible adults?

Lucem Health Reveal for Lung Cancer uses your existing EHR data to help identify patients with higher apparent risk for lung cancer. Using a proven AI algorithm, Reveal can identify patients who are almost five times as likely to present with lung cancer. That allows you to target and engage lung cancer patients earlier, when outcomes are better and total treatment costs are lower.

## Reveal for Lung Cancer difference

- Uses standard EHR data and a proven AI model to flag ever-smokers 40-89 years old who have higher statistical risk for lung cancer

- Risk-stratifies patients for additional engagement, including those who meet USPSTF lung cancer screening guidelines

- Enables you to target patients for earlier diagnosis and treatment

- Optimizes utilization of lung cancer screening resources that may be scarce

Lung cancer is the **number one cause of cancer death** in the US, and the 3rd most common cancer.

## Why Reveal for lung cancer?

### Deliver timely Dx and treatment

Reveal for Lung Cancer flags patient risks 9-12 months prior to when they would otherwise be diagnosed. With earlier identification, about 15% of Stage 4 cases could instead be identified at Stages 0-3.

### Improve patient outcomes

Lung cancer has a 65% survival rate when diagnosed at localized stage, compared to 9% survival rate when diagnosed at Stage 4.

### Effectively target higher risk patients

In a typical cohort of screening-eligible patients, Reveal is expected to flag nearly 50% of lung cancer cases.

### Enhance clinical yield

With Reveal, find a projected 370% more cases of lung cancer compared to opportunistic USPSTF screening of an equal-size patient cohort.

# Reveal for lung cancer by the numbers

Targeted lung cancer screening makes clinical and financial sense. Consider a population of 58,000 adults meeting USPSTF lung cancer screening criteria. This table compares program scenarios in years 1 and 2 with and without Reveal for Lung Cancer, which targets the 10% of patients flagged for higher apparent risk of respiratory illnesses, including cancers of the lung or trachea.

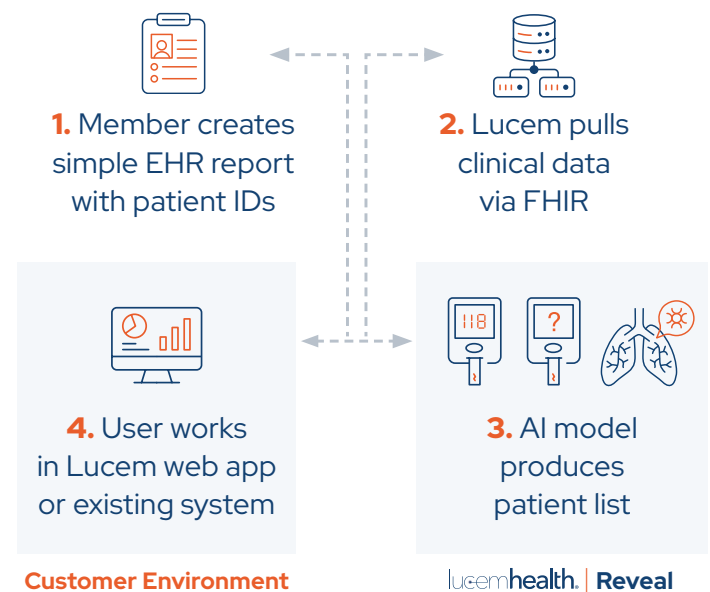| | With Reveal | Without Reveal |
|---|---|---|
| **Clinical benefit**<br>Almost 5x screening efficiency | **276 patients with NSCLC**<br>Projected patients diagnosed, 9-12 months earlier than typical Dx | **56 patients with NSCLC**<br>Expected lung cancer diagnoses from opportunistic screening |
| **Financial benefit** | **over $38 million**<br>Treatment revenue accelerated, based on 9 months earlier detection | **$1.4 million**<br>Additional costs driven by higher rate of Stage 4 diagnosis |

## A proven solution from partners you can trust

**Lucem Health partnered with Medial EarlySign to develop Reveal for Lung Cancer.**

Medial EarlySign helps healthcare stakeholders keep patients healthier longer—with software solutions that derive actionable and personalized clinical insights from readily available health data.

EarlySign's AlgoMarkers and predictive solutions can help healthcare organizations select enriched sub-populations and more accurately identify and prioritize patients for interventions for multiple conditions to halt or prevent serious complications from the onset of disease.

## How Reveal works

**1.** Member creates simple EHR report with patient IDs

**2.** Lucem pulls clinical data via FHIR

**4.** User works in Lucem web app or existing system

**3.** AI model produces patient list

**Customer Environment**

lucemhealth. | Reveal

## Additional Reveal solutions for greater impact

In addition to the prediction of lung cancer risk, Lucem Health has partnered with Medial EarlySign on additional Reveal solutions, including prediabetes progression, undiagnosed diabetes, and lower GI disorders. These solutions leverage the same Reveal platform and EHR data access, making it simple for health networks to better assess risk across their patient population.

## lucemhealth®

Lucem Health helps healthcare providers accelerate disease detection and treatment using practical, responsible AI—so they can improve patients' lives and increase the clinical and financial yield from today's scarce care delivery resources.

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1. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8328984/ and https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8294072/
2. https://www.cancer.org/cancer/types/lung-cancer/detection-diagnosis-staging/survival-rates.html