

RESEARCH BRIEF

Closing the Lung Cancer **Screening Gap**

Why the deadliest cancer is the least screened, and how AI patient navigation changes the math for health systems.

THE GAP

The deadliest cancer is the least screened.

Lung cancer kills more Americans than any other cancer, more than breast, colorectal, and cervical cancers combined. Low-dose CT screening catches it early, when it is far more survivable. Yet it reaches fewer eligible patients than any other recommended cancer screen.

#1

cause of cancer death in the U.S.

~1 in 5

eligible patients who get screened, versus roughly 3 in 4 for breast and colorectal cancer

~80%

of lung cancers are still found at stage 3 or 4, when survival is lowest

The gap is not a failure of clinical will. Screening programs and the navigators who run them want to reach these patients. It is an operational failure at the front of the funnel: eligible patients are hard to find, hard to reach, and hard to move through a required shared decision-making step, all with manual tools and a handful of staff.

"Adherence is actually high once patients are enrolled. The bottleneck is getting them referred in the first place."

Lung screening program manager, academic medical center

To understand why, we spoke with the people who run these programs every day. The pattern was strikingly consistent.

WHAT WE HEARD IN THE FIELD

Four failure points, named by the people who live them.

We interviewed lung screening navigators, program managers, and physicians across academic medical centers, integrated delivery networks, and community programs. The same four barriers surfaced again and again.

1 Smoking history is broken data

Pack-year history is the gate to eligibility, and it is the single most-cited problem. It lives in unstructured notes, is inconsistently recorded, and is sometimes revised downward when a patient cuts back, quietly erasing eligibility. Navigators describe calling patients just to confirm a 20 pack-year history the record should already hold.

"Smoking ascertainment is all over the map, poorly standardized, and not regularly updated." —
Thoracic surgeon, cancer center

2 Identification is unreliable

Best-practice alerts fire in the middle of packed visits and get dismissed. Data on patients seen outside the system is incomplete. Patients who have not seen a primary care physician in years are invisible to the very tools meant to catch them. The low national screening rate is, first and foremost, a pre-referral problem.

3 Navigation is a manual bottleneck

Even when patients are found, reaching them is a person-by-person grind. Most calls come from unknown numbers and go to voicemail; teams make five or six attempts each and track everything in spreadsheets. The ceiling is simply how many patients a small team can physically touch.

In one system, roughly **72,000** eligible patients were assigned to **two** nurse navigators, who reached about **2,000** in a year.

4 Shared decision-making adds a second hurdle

Medicare requires a shared decision-making visit before the scan. In many programs that means a separate appointment, often weeks ahead of the CT, and it must be completed and billed by a person. Every extra step is another place patients fall away.

THE REFRAME

This is a capacity problem, not a clinical one.

The clinical case for screening is settled. What limits it is throughput at the front of the funnel: identification, outreach, and shared decision-making, all bounded by how many patients a small navigation team can reach. Adding navigators helps at the margin, but the arithmetic does not close a gap this size. The work itself has to change.

THE APPROACH

An AI nurse agent for the front of the funnel.

Artemis deploys an AI nurse agent, Maya, that does the identification and outreach work that caps today's programs, and hands off cleanly to a clinician whenever a human belongs in the loop.

01 Identifies the patient

Reads structured and unstructured records to surface eligible patients, quantify pack-years, and prioritize by risk.

02 Engages the patient

Reaches out by voice, on the patient's preferred channel and in their own language.

03 Completes shared decision-making

Walks the patient through the conversation. A clinician can join the live call to complete and bill the SDM visit.

04 Books the scan

Schedules the low-dose CT and sends the reminders that keep the appointment.

05 Closes the loop

Tracks results and follow-up so nothing falls through the cracks.

It runs inside your EHR, adds no clicks for your physicians, and is built to be HIPAA-ready.

MEASURING LIFT

A simple way to see it working.

Because the funnel is the problem, the funnel is also the measurement. Track conversion at each stage and compare your screened rate before and after.



We build measurement in from day one. This brief makes no claims about results we have not yet earned. The point of a design partnership is to generate them together, transparently.

THE OPPORTUNITY

What closing the gap is worth.

For a health system, lifting lung screening means more cancers caught early, a stronger cancer service line, and better performance on quality measures, without standing up an army of navigators. The systems that move first will set the standard for what modern screening looks like.

Build this with us.

Book a 30-minute call to map Maya to your program, or apply to our Design Partner Program to shape it around your workflow.

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