

Virtua Health + Eon

Transforming Early Detection into a Systemwide Oncology Growth Strategy



Executive Summary

Virtua Health is a five-hospital nonprofit health system serving southern New Jersey. With more than 250,000 radiology exams being conducted across the system annually, leaders saw an opportunity to improve early lung cancer detection and expand their oncology program. To do so, they needed to be able to capture patients surfaced through the traditional pathway — lung cancer screening (LCS) — as well as patients with incidental pulmonary nodules (IPN) found on unrelated imaging.

However, manual processes, fragmented workflows, and site-to-site variability limited their ability to implement a consistent, reliable strategy system-wide. Virtua partnered with Eon to implement a condition-specific AI-powered solution that integrated LCS and IPN management into a single unified platform. The result was a coordinated, system-wide approach that strengthened adherence, reduced variability, and accelerated the movement of patients from detection to diagnosis and into treatment.

The results were measurable:

>90%

Of patients with IPN returned for care across three consecutive years

80%

Increase in completed lung cancer screenings over two years

90%

Of diagnosed patients retained for in-network oncology care

Early detection now delivers both **clinical impact and a more predictable oncology pipeline.**

THE CHALLENGE:

Building a Comprehensive Lung Program Systemwide

LCS is vital to the early detection of lung cancer. However, while they don't often represent advanced disease, [IPNs have an overall malignancy of about 5%](#), similar to what is seen overall in LCS patients. But IPN patients do not enter through the traditional LCS pathway but are found through unrelated imaging exams — such as a Chest X-ray or abdominal scan. So ensuring such patients are being followed up and receiving care can be challenging. Eon's data shows that less than 10% of health systems nationwide have an IPN program. Virtua's existing model created several challenges including:

- The need for manual review and validation of each imaging report and the recommended next steps, not just those patients identified as high-risk
- Requiring constant monitoring for any clinical changes to a patient's recommended care plan
- Lack of visibility into patient adherence to recommended follow-up care
- Bottlenecks created by time spent on administrative tasks, which slowed time-to-treatment for patients needing follow-up care

The hospital system's leaders realized that implementing incremental process improvements could not deliver the improvements to patient outcomes or system-wide growth that Virtua was seeking. They needed an enterprise-scale solution that enabled them to integrate their IPN and LCS programs to identify, stratify, and track patients longitudinally, in real time.

THE SOLUTION:

Creating One Longitudinal Framework

In 2019, Virtua partnered with Eon to implement a condition-specific, integrated, AI-powered solution that integrated unified LCS and IPN management into a single unified lung cancer management program.

Eon's solution:

- Automatically extracts and risk-stratifies nodules from radiology reports
- Generates recommended next steps using evidence-based guidelines
- Tracks patient adherence, allowing care teams to prioritize patient outreach
- Flags missed appointments and clinical changes, updating recommendations in real-time
- Provides enterprise-level program visibility, including reporting and data analytics



THE RESULT:

Moving to a standardized systemwide program enabled Virtua to improve patient outcomes through early intervention and accelerate time-to-treatment, while advancing care pathways to oncology programs when necessary.

The results demonstrate the power of a coordinated, technology-enabled approach to early detection. The following data highlights measurable improvements in adherence, follow-up timeliness, and program growth — underscoring the success of a comprehensive strategy.

Virtua Program Results (2023–2025)

LUNG SCREENINGS

924 Screenings completed in 2025

80% Increase in completed lung cancer screenings

LUNG CANCER DIAGNOSES

185 Cancers identified in 2024

74 Cancers diagnosed in Stage 1 in 2025

68% Increase in lung cancers diagnosed year-over-year

CONTINUING CARE

92% High-risk patients returned on time

90% Diagnosed cancer patients retained for in-network oncology care



Eon's enterprise-level solution enabled Virtua to detect lung cancers earlier, improve adherence, and retain more patients — **fundamentally transforming how risk is identified, monitored, and managed** across the system.

About Virtua Health

Virtua Health is a five-hospital nonprofit health system providing care across southern New Jersey. With extensive imaging capabilities and a comprehensive oncology service line, Virtua delivers coordinated care from early detection through treatment and survivorship. The system performs more than 253,000 radiology exams annually and is focused on advancing clinical quality, improving patient access, and strengthening outcomes across the communities it serves.

About Eon

Eon is a healthcare technology company focused on supporting health systems in the identification and ongoing management of patients at risk of cancer and other life-threatening conditions. Powered by condition-specific clinical AI, Eon's longitudinal care management platform extracts incidental findings documented in radiology reports and helps ensure patients receive timely, guideline-based follow-up and remain in appropriate surveillance over time.

More than 70 health systems across over 1,200 facilities rely on Eon and its care management services to scale early detection programs, enable earlier diagnosis and treatment, and support sustained patient engagement—outcomes that also carry meaningful financial implications for health systems.

Ready to Transform Your Incidental Findings Management?

See how Eon can help your health system achieve results like Virtua Health's.

[Learn more at eonhealth.com](https://eonhealth.com)

