KYTHERA

Strategic Revenue Capture Opportunities Illustrative Sample Report

Wayfinder Data Technology Platform Incorporating Agentic AI Capabilities

Demonstrating Claims-Confident Market Intelligence, Competitive Capture Analytics & Strategic Action Planning

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About Kythera Labs

Kythera Labs is a data technology company focused on helping healthcare organizations arrive at clearer, more reliable answers from complex data. By combining deep healthcare data expertise with advanced data science and purpose-built technology, Kythera enables organizations to quantify opportunity, understand market dynamics, and act with greater confidence.

Kythera's Wayfinder Agentic framework structures large-scale claims data, integrates internal and external sources, and evaluates patterns across markets. This provides visibility into where patients are receiving care, how referral patterns evolve over time, and where opportunity exists to improve alignment, retention, and service performance.

About This Report

This document presents a detailed analytical report produced using Kythera's Wayfinder Agentic framework, incorporating national and regional claims data spanning 2022–2025.

Analyses of this scale and complexity have traditionally required significant time and manual effort; the Wayfinder Agentic framework enables these patterns to be evaluated in minutes, allowing organizations to move from questions to answers far more quickly.

The analysis reflects a representative large, multi-site health system operating in a competitive regional market. All entities and values have been anonymized and adjusted for confidentiality and illustrative purposes while maintaining directional accuracy.

This report is designed to demonstrate how claims-based analysis can identify patterns in referral behavior, oncology retention, and service line performance. It provides a structured view of observed patterns, with additional analysis available to further isolate underlying factors and inform targeted operational and strategic decisions.

Executive Summary

This analysis evaluates patterns of care delivery and patient movement for a large integrated health system over a multi-year period (2022-2025), with a focus on where and how services are delivered outside the network.

Approximately $2.3B in healthcare services associated with the system's patients were delivered outside the network over that period, representing a measurable revenue opportunity across three primary categories:

- **Out-of-Network Referrals: ~$1.9B in Opportunity**
- **Oncology Retention: ~$390M in Opportunity**
- **Service Line Expansion: ~$50M in Opportunity**

These categories reflect distinct but related patterns of external or out-of-network utilization. While Oncology Retention is a subset of broader out-of-network activity, it is evaluated separately due to its complexity and strategic importance.

These findings reflect systematic patterns of patient and revenue flow to competing providers, highlighting opportunities to improve referral alignment, strengthen key service lines, and retain high-value patient populations.

Out-of-network referrals represent the largest and most immediate area of opportunity, while oncology retention reflects more complex, multi-step care pathways. Service line expansion represents a more targeted opportunity, often requiring alternative approaches such as partnerships or coordination rather than full internalization.

Understanding the Three Opportunity Types

Out-of-Network Referrals ~$1.9B in Opportunity
Out-of-network referrals represent the largest share of total opportunity, driven by consistent patterns of patient movement to competing providers for services that are often available within the network.

Oncology Retention: ~$390M in Opportunity
Oncology retention represents a high-value, pathway-driven opportunity, reflecting patients who initiate care within the system but continue treatment out-of-network across complex, multi-step care journeys.

Service Line Expansion: ~$50M in Opportunity
Service line expansion represents a smaller, more targeted opportunity, where care is delivered outside the system for services that may not be available internally or may be better addressed through alignment, partnerships, or coordination.

01

Out-of-Network Referrals

~$1.9B in Opportunity (2022-2025)

KEY METRICS
~271K PATIENTS | ~1.4M CLAIMS | ~$1.3K AVERAGE PER CLAIM

Out-of-network referrals represent the largest share of total opportunity, driven by consistent patterns of patient movement to competing providers for services that are often available within the network. These patterns reflect a combination of referral workflows, access considerations, and provider alignment, resulting in a sizable portion of care being delivered outside the system.

Strategic Insight 01

Provider-Level Concentration

Business Challenge
A small cohort of providers accounts for a disproportionate share of out-of-network referral activity.

Top Providers Driving Competitor Referral Volume (Anonymized)

Provider (Specialty)	Estimated Revenue ($M)	Patients
Provider A (Nephrology)	~35	~100
Provider B (Orthopedics)	~33	~480
Provider C (Sports Medicine)	~31	~430
Provider D (Nephrology)	~21	~60
Provider E (Orthopedics)	~19	~400
Provider F (Cardiology)	~17	~350
Provider G (Internal Medicine)	~15	~300
Provider H (Radiology)	~14	~280
Provider I (Anesthesiology)	~13	~260
Provider J (Nephrology)	~12	~240

IMPLICATION
These patterns suggest repeatable referral behavior driven by capacity constraints, referral workflows, or provider alignment.

Strategic Insight 02

Competitive Ecosystem Capture

Business Challenge

Out-of-network referrals are captured across a mix of competing health systems and specialty providers. Two competitor hospitals, ancillary, and professional services account for a significant portion of leakage.

Competing Providers Capturing Referral Volume

Provider Category	Estimated Revenue ($M)
Regional Health System A	~80
Radiology Group B	~78
Pathology Group C	~58
Anesthesia Group D	~56
Radiology Group E	~49
Specialty Clinic F	~45
Independent Group G	~40
Provider Network H	~38
Clinic Group I	~35
Independent Provider J	~30

IMPLICATION

Referral leakage is a multi-layered ecosystem issue, with value captured across the care pathway. While most hospitals use contracted professional services, the findings suggest the hospital evaluate contract terms for pricing and quality consistency

Strategic Insight 03

Geographic Concentration

Business Challenge

Competitor utilization is concentrated in a limited number of geographic regions, indicating uneven access, capacity, or competitive positioning across the system’s footprint.

Out-of-Network Utilization by Region (Illustrative)

Region	Estimated Revenue ($M)	Patients
Region A	~520	~80K
Region B	~425	~60K
Region C	~350	~50K
Region D	~300	~40K

IMPLICATION

These patterns suggest targeted opportunities for capacity expansion, geographic expansion, site-of-care optimization, or strategic partnerships.

Strategic Insight 04

Payer Mix and Value Distribution

Business Challenge

External utilization varies significantly by payer segment, with certain populations driving volume and others representing higher-value opportunity.

Out-of-Network Utilization by Payer Type

Payer Type	Estimated Revenue ($M)	% of Total
Medicare	~1,550	~80%
Commercial	~325	~17%
Other	~75	~3%

IMPLICATION

While Medicare drives overall volume, commercially insured populations represent higher reimbursement potential and targeted opportunity for retention.

Strategic Insight 05

Procedure-Level Drivers

Business Challenge
A sizable portion of out-of-network utilization is driven by high-volume, routine services rather than highly specialized procedures.

High-Volume Services Driving External Utilization

Service Category	Estimated Revenue ($M)
Outpatient Visits	~400
Hospital Care	~250
Therapy Services	~200

IMPLICATION

This suggests that access and capacity constraints in foundational services are key contributors to out-of-network utilization.

02

Oncology Retention

~$390M in Opportunity (2022-2025)

KEY METRICS

~20K PATIENTS | ~194K CLAIMS | ~$2K AVERAGE PER CLAIM

Oncology-related utilization represents a distinct category of opportunity, reflecting patients who previously interacted with the system but received cancer-related services externally.

Strategic Insight 01

Concentrated Out-of-Network Utilization

Business Challenge
A limited number of competing providers capture a significant share of oncology patient volume, suggesting established referral patterns, patient preferences, and access/capacity issues.

Oncology Providers Capturing External Utilization (Anonymized)

Provider Category	Estimated Revenue ($M)	Patients
Oncology Provider A	~40	~800
Oncology Provider B	~27	~800
Regional Health System C	~25	~2,000
Specialty Group D	~22	~1,200
Multi-Specialty Group E	~20	~1,000

IMPLICATION

Understanding which providers consistently capture oncology patients—and under what conditions—is critical to improving retention in this high-value service line. Evaluation of capacity and technology, access, and partnerships is recommended.

Strategic Insight 02

High-Value Cancer Types

Business Challenge

A small number of cancer types account for a disproportionate share of oncology-related out-of-network utilization.

Oncology Opportunity by Cancer Type

Cancer Type	Estimated Revenue ($M)
Prostate	~70
Breast	~64
Lung	~54
Bladder	~22
Other	~170

IMPLICATION

Targeting these cancer types allows for focused retention strategies in high-impact areas.

Strategic Insight 03

Multi-Step Care Pathways

Business Challenge

Oncology care spans multiple stages, creating several points where patients may transition outside the network.

IMPLICATION

Retention requires a coordinated approach across the full patient journey.

Strategic Insight 04

Radiation Therapy Concentration

Business Challenge

A significant portion of oncology-related external utilization is concentrated in radiation therapy services.

Oncology Utilization by Service Type

Service Type	Estimated Revenue ($M)
Radiation Therapy	~135
Treatment Management	~90
Advanced Therapy	~40

IMPLICATION

This suggests potential constraints in capacity and access, technology, geographic availability and referral pattern preferences.

Strategic Insight 05

Persistent Leakage Patterns

Business Challenge

A consistent population of patients continues oncology care outside the network each year following initial interaction.

Representative Trend View

Year	Revenue ($M)	Patients
2022	~105	~8K
2023	~110	~8.5K
2024	~100	~7.8K

IMPLICATION

This reflects a systemic retention challenge requiring coordinated improvements across care delivery and patient experience.

03

Service Line Expansion

$50M in Opportunity (2022-2025)

KEY METRICS
~40K PATIENTS | ~86K CLAIMS

Service line expansion represents a smaller, more targeted opportunity, where care is delivered outside the system for services that may not be available internally or may be provided through out-of-network providers. These patterns reflect variation in service availability, care coordination, and delivery models across the broader care pathway.

Strategic Insight 01

Ancillary Service Concentration

Business Challenge

External utilization is concentrated in ancillary services such as transportation, durable medical equipment (DME), and home-based care, which are frequently required across a range of patient journeys.

Service Line Opportunity Breakdown

Service Category	Estimated Revenue ($M)
Transportation	~31
Durable Medical Equipment	~10
Oxygen Equipment	~7
Other Equipment	~8

IMPLICATION

These services represent measurable opportunity, but their role within broader care delivery suggests that improvements in coordination and alignment may be more impactful than full internalization.

Strategic Insight 02

Embedded Within Care Pathways

Business Challenge

Ancillary services are embedded within broader care journeys, meaning out-of-network utilization is often driven by how care is coordinated or patient convenience rather than the availability of standalone services.

IMPLICATION

Opportunities in this category should be evaluated within the context of full patient pathways, where improvements in care coordination, discharge planning, and provider alignment may reduce reliance on external services. Patient convenience and access should also be evaluated.

Strategic Insight 03

Practical Constraints on Capture

Business Challenge

Not all out-of-network delivered services represent realistic opportunities for internalization due to operational, regulatory, or economic constraints.

IMPLICATION

While these services collectively represent a measurable ~$50M opportunity, this opportunity is not uniformly addressable through internal expansion. In many cases, it is best interpreted as the ability to improve alignment through:

- **partnerships**
- **coordination**
- **access**
- **contract optimization**

Strategic Prioritization Framework

Immediate (0–6 Months)

Focus on:

- referral alignment
- oncology retention

These areas:

- represent the largest share of total opportunity
- are driven by identifiable, repeatable patterns of out-of-network utilization

Key Factors to Evaluate

- provider-level referral patterns
- care coordination across oncology pathways
- access and capacity expansion

Mid-Range (6-18 Months)

Focus on:

- strengthening high-volume service lines
- improving access and coordination
- geographic and capacity expansion

These areas:

- represent targeted opportunities to improve alignment within existing care delivery models

Key Factors to Evaluate

- imaging and diagnostic service availability
- specialty service alignment
- patient pathway coordination

Long-Term (18+ Months)

Focus on:

- structural alignment
- strategic partnerships
- service and capacity expansion
- geographic coverage

These areas:

- represent opportunities that may require investment, partnerships, or changes to delivery models

Key Factors to Evaluate

- persistent out-of-network utilization patterns
- opportunities for capability expansion or partnership

Conclusion
A Clear View of Opportunity

This analysis highlights approximately $2.3B in total revenue opportunity associated with healthcare services delivered outside the network, driven by:

- referral pathways
- oncology retention dynamics
- service availability and utilization patterns

The findings demonstrate that this opportunity is:

- concentrated within specific providers, services, and geographies
- consistent and measurable over time
- systematically identifiable through claims-based analysis

The most immediate impact is likely to come from:

- improving referral alignment
- strengthening oncology retention

These areas represent the largest and most actionable share of opportunity, driven by repeatable patterns of out-of-network utilization.

Longer-term opportunities may involve:

- improving service line alignment
- addressing structural and geographic gaps
- evaluating targeted investment and partnership strategies

These areas represent more targeted opportunities, where the path to impact may vary depending on operational, financial, and strategic considerations.

Connect with Kythera at HMPS 2026

This report demonstrates how large-scale healthcare data can be structured to evaluate patterns of external utilization, patient movement, and revenue opportunity across a market.

Most organizations have only a partial view of:

- referral patterns
- competitive dynamics
- patient movement across their market

As a result, these patterns often appear as:

- fragmented care pathways
- external utilization that is not fully understood
- decisions made without a complete view of where opportunity exists

Kythera's Wayfinder Agentic AI framework enables organizations to:

- evaluate these patterns systematically
- understand how care is actually delivered across their market
- identify where measurable opportunity exists and how it may be addressed

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Visit Kythera at HMPS 2026, Booth #77 to explore how this type of analysis can be applied to your organization and how these questions can be evaluated as part of a connected analytical process.

Schedule a 30-minute follow-up discovery session during or after the conference.