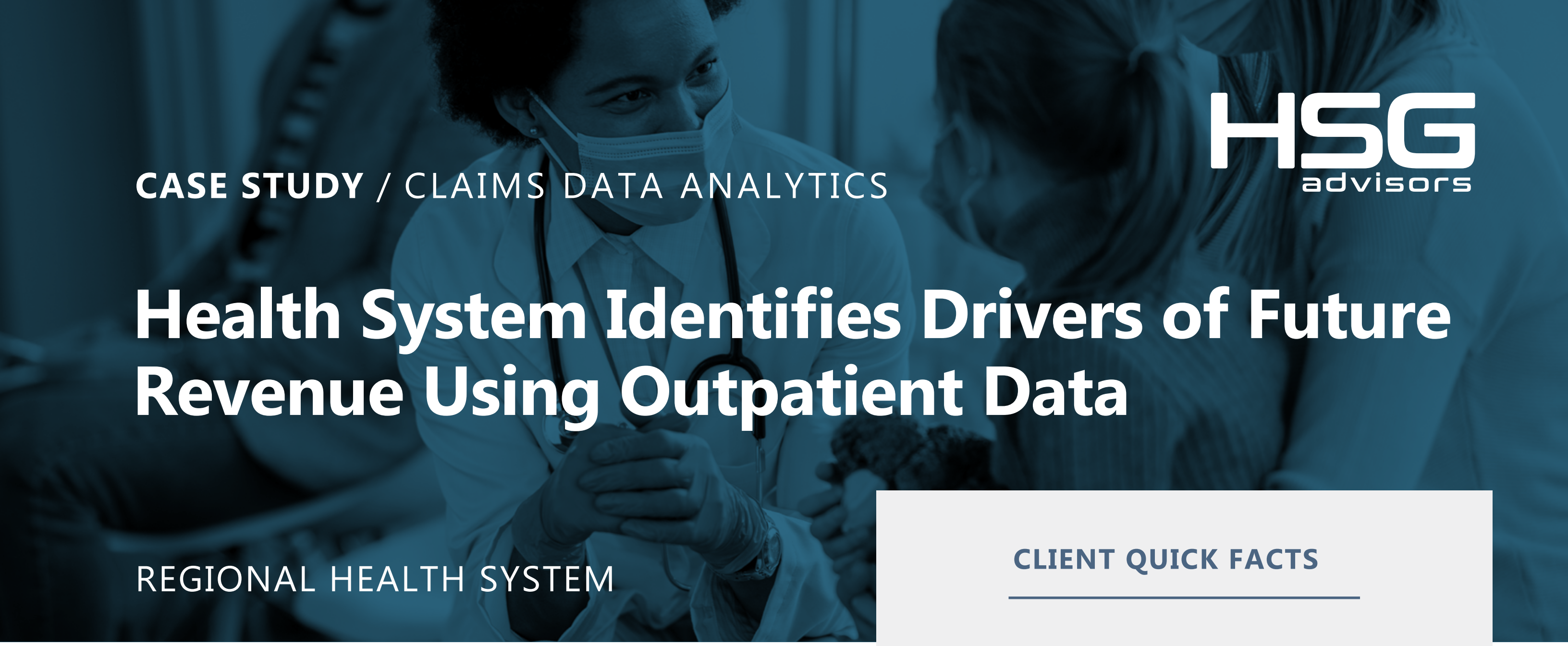

CASE STUDY / CLAIMS DATA ANALYTICS

HSG advisors

Health System Identifies Drivers of Future Revenue Using Outpatient Data

REGIONAL HEALTH SYSTEM

CLIENT QUICK FACTS

- Based in Southern U.S.
- 200+ Bed Acute Care Hospital
- 100+ Employed Providers
- $250M+ Net Revenue
- HSG Partner Client Since: 2018

THE OVERVIEW

A Regional Health System centered in a rural area faced pockets of regional competition and additional tertiary competition within a 30-to-60-minute geographic radius. It had already seen outpatient services and patient utilization of health care drop significantly due to the pandemic, and its leadership team did not have adequate outpatient data or information on the drivers of change in patient volume.

> “Outpatient service volumes are **critically impacting health system revenue.** Physician market share needs to be clearly understood to impact the ambulatory environment.
>
> – D.J. SULLIVAN, HSG DIRECTOR

CHALLENGES

The Regional Health System needed to better understand its current patient volume and opportunities to grow market share and serve a larger number of patients within their strategic service area. The healthcare industry’s shift from inpatient to outpatient services is significant and expected to continue to affect hospital revenue for years to come. While most hospitals have ample inpatient data, they have extremely limited outpatient data. With HSG Outpatient and Physician Office Market Share™ the Regional Health System gained outpatient data insight in two key areas:

1. **Sources of patient volumes by patient county of residence.** With this insight, the hospital had a baseline for ongoing metrics and operational decisions.

2. **Details on the eligible population’s outpatient healthcare utilization.** The data included the percentage of usage within the organization and the percentage controlled by competitors. With HSG Advisors’ guidance, the leadership team could now identify and create a strategy to seize market opportunities.

THE DATA

With HSG Outpatient and Physician Office Market Share™, clients have rich market data at their fingertips:

- Total volumes based on service line, sub service line, and cross service line definitions (i.e., X-ray, MRI, CT, etc.)
- A provider-level digital intelligence dashboard with physician-level market share
- "Percentage of total" outpatient utilization metrics by unique patient service volumes and total procedural volumes
- A list of all the specialists that are providing office-based visits to a patient that lives in specified areas
- Provider detail with granular information (e.g., primary care), specialist level, or sub-specialist level by provider service type

THE PROCESS

HSG Advisors provided comprehensive data, analysis of the data, and strategic guidance to the hospital on effectively utilizing the data. During the hospital's engagement, it was discovered that a large independent primary care provider group was actually steering volume around the hospital's specialists, curtailing the flow of patient services. Since patient volume is provider-relationship driven, the team decided to acquire and employ the primary care group. By bringing the group under the same umbrella, those relationships began to build and become a source of higher inpatient and outpatient service volumes.

KEY FINDINGS

> We drilled down to identify the market share each individual provider has **in the area, how many patients in the area are actually utilizing services, and the total volume of imaging services by provider.**

THE RESULTS

With ongoing metrics, the health system's leadership team could track ROI, measure the quantifiable value of employing the primary care provider group, and benefit from increases in overall patient service volume. Specifically, the organization gained:

1. **A greater than 1% increase in unique patient volumes and capture volumes for the following key outpatient service lines associated with primary care patients.**

- Labs
- Office-Based Visits
- Radiology
- Orthopedics
- Emergency Visits
- Oncology
- Urology
- Gyn and OB

Main Service Line	2019		2020		2021		2019 - 2021 Difference
	Client Market Share	Display Metric	Client Market Share	Display Metric	Client Market Share	Display Metric	
Lab	13.5%	902,100	13.8%	794,013	15.7%	781,594	2.2%
Outpatient Ungroupable	17.2%	838,761	15.9%	706,019	14.7%	743,228	-2.4%
Office Visits	11.8%	408,169	13.5%	349,728	15.8%	372,844	4.0%
Rehabilitation	4.7%	233,574	4.8%	209,072	4.0%	233,817	-0.7%
Other Outpatient E&M	11.0%	224,506	13.9%	209,709	15.7%	195,138	4.7%
Other Radiology	30.8%	165,398	31.8%	132,863	32.9%	139,730	2.1%
Cardiovascular	32.1%	144,937	33.3%	109,672	35.5%	113,740	3.4%
Orthopedics	13.8%	79,983	13.1%	66,605	15.1%	69,497	1.3%
Ophthalmology	0.0%	81,439	0.0%	62,024	0.0%	70,722	0.0%
Emergency Visits	26.2%	68,909	29.8%	51,337	33.9%	47,065	7.7%
Nephrology	1.5%	37,371	1.8%	38,199	1.9%	35,409	0.4%
Psychiatry	1.2%	28,340	1.2%	35,419	1.3%	40,645	0.1%
Neurosciences (Including Spine)	27.5%	38,413	28.1%	30,674	28.1%	32,995	0.6%
Oncology/Hematology	14.6%	38,078	15.7%	30,338	16.1%	28,838	1.5%
Dermatology	1.2%	27,415	1.2%	23,807	1.5%	26,275	0.3%
Pulmonology	18.1%	24,315	16.8%	20,507	17.0%	22,427	-1.2%
ENT	3.5%	15,960	3.2%	15,247	2.4%	15,330	-1.1%
Pain Management	58.8%	16,054	58.1%	15,971	56.6%	14,030	-2.2%
Podiatry	1.7%	16,642	2.0%	13,789	1.2%	15,450	-0.6%
Gastroenterology	35.4%	15,846	38.8%	11,490	37.7%	12,865	2.3%
Urology	29.5%	12,407	28.6%	11,531	36.2%	12,391	6.6%
General Surgery	29.5%	13,027	27.8%	11,423	25.4%	11,670	-4.1%
OB	8.7%	2,813	11.1%	3,116	27.7%	2,015	19.0%

2 More specifically, outpatient orthopedic market share growth was across all sub service line definitions except for MRI. **The outpatient joint replacement volume grew by 22% across the market area and the clients capture of the market increased by 4% from 2019 to 2021.**

Sub Service Line	2019		2020		2021		2019 - 2021 Difference
	Client Market Share	Display Metric	Client Market Share	Display Metric	Client Market Share	Display Metric	
Orthopedics X-Ray	12.6%	54,102	11.6%	43,846	13.7%	45,219	1.1%
Orthopedics Other	11.5%	15,373	11.7%	13,347	12.4%	14,290	1.0%
Orthopedics MRI	33.2%	4,309	30.4%	3,541	31.8%	3,796	-1.4%
Orthopedic Trauma	12.1%	3,409	14.7%	3,212	17.8%	3,347	5.7%
Joint Replacement	7.7%	926	10.3%	1,034	11.7%	1,127	4.0%
Orthopedics CT	19.6%	906	16.4%	944	29.8%	981	10.1%
Orthopedic Other Imaging	52.6%	601	60.2%	440	54.0%	493	1.4%
Orthopedics Ultrasound	6.2%	357	19.1%	241	17.6%	244	11.5%

“

KEY FINDINGS

We partnered with our client to help them **analyze the data, use it to inform strategy, and then implement it into practice.**

3 Imaging leakage was identified as low-hanging fruit for organizational growth. **The client was able to increase market share by >1% across all imaging groups.**

Imaging Group	Sub Service Line	2019		2020		2021		2019 - 2021 Difference
		Client Market Share	Display Metric	Client Market Share	Display Metric	Client Market Share	Display Metric	
X-Ray	Other Radiology - X-Ray	25.5%	72,909	26.1%	54,000	28.0%	55,120	2.5%
	Orthopedics X-Ray	12.6%	54,102	11.6%	43,846	13.7%	45,219	1.1%
	Neurosciences X-Ray	26.1%	11,641	26.3%	8,640	27.6%	10,309	1.5%
	Gastroenterology X-Ray	36.0%	1,434	42.4%	896	34.2%	936	-1.8%
	Urology X-Ray	69.2%	422	62.0%	332	65.3%	337	-3.9%
	Total	**20.9%**	**140,508**	**20.5%**	**107,714**	**22.4%**	**111,921**	1.5%
CT	Other Radiology - CT	25.4%	51,056	25.8%	42,994	26.9%	44,895	1.5%
	Neurosciences CT	27.3%	6,371	26.0%	5,022	26.8%	4,982	-0.5%
	Orthopedics CT	19.6%	906	16.4%	944	29.8%	981	10.1%
	Oncology/Hematology CT	11.8%	330	20.2%	387	40.2%	644	28.4%
	Cardiovascular CT	5.7%	35	0.0%	31	14.6%	48	8.9%
	Total	**25.4%**	**58,698**	**25.6%**	**49,378**	**27.1%**	**51,550**	1.7%
Ultrasound	Cardiovascular Ultrasound	31.3%	32,491	32.2%	26,360	32.7%	27,771	1.4%
	Other Radiology - Ultrasound	23.7%	10,543	25.2%	8,776	28.0%	8,789	4.3%
	OB Ultrasound	8.9%	2,023	8.5%	2,281	21.2%	1,351	12.3%
	Urology Ultrasound	17.4%	1,029	20.6%	922	29.0%	1,078	11.6%
	Ophthalmology Ultrasound	0.0%	651	0.0%	731	0.0%	779	0.0%
	Gynecology Ultrasound	10.5%	735	11.3%	512	15.1%	624	4.6%
	Orthopedics Ultrasound	6.2%	357	19.1%	241	17.6%	244	11.5%
	Total	**27.5%**	**47,829**	**28.1%**	**39,823**	**30.2%**	**40,636**	2.8%
Mammography	Other Radiology - Mammography	56.0%	29,489	55.9%	25,999	52.3%	29,620	-3.8%
	Mammography	76.3%	1,843	71.3%	1,521	62.8%	1,983	-13.5%
	Total	**57.2%**	**31,332**	**56.7%**	**27,520**	**52.9%**	**31,603**	-4.3%
MRI	Neurosciences MRI	29.6%	10,702	32.1%	9,078	32.5%	9,596	2.9%
	Orthopedics MRI	33.2%	4,309	30.4%	3,541	31.8%	3,796	-1.4%
	Other Radiology - MRI	27.5%	1,336	27.2%	1,052	37.8%	1,267	10.3%
	Total	**30.4%**	**16,347**	**31.3%**	**13,671**	**32.8%**	**14,659**	2.4%
Other Imaging	Cardiovascular Other Imaging	51.1%	4,578	56.6%	3,433	53.1%	3,579	2.0%
	Oncology/Hematology Other Imaging	36.5%	2,154	36.3%	1,873	42.2%	2,074	5.7%
	Orthopedic Other Imaging	52.6%	601	60.2%	440	54.0%	493	1.4%
	Gastroenterology Other Imaging	32.9%	73	44.7%	47	41.3%	46	8.4%
	Other Radiology	53.8%	65	21.4%	42	17.9%	39	-35.9%
	Nephrology Other Imaging	85.4%	48	79.5%	39	83.6%	55	-1.8%
	Pulmonology Other Imaging	0.0%	94	0.0%	28	5.3%	19	5.3%
	Neurosciences Other Imaging	9.1%	11	0.0%	11	0.0%	8	-9.1%
	Total	**46.4%**	**7,624**	**49.8%**	**5,913**	**49.4%**	**6,313**	2.9%

4 **Strategic insight into primary care groups in the market were a primary driver of overall growth** – the hospital thought there were multiple independent primary care groups that were competitive in terms of market share in the service area, HSG Advisors identified that one was far outpacing the other, and the hospital aligned with the higher-growth group to drive growth overall outpatient growth.

CONSULTING

In addition to identifying growth opportunities, HSG Advisors provided nine months of on-site interim management to facilitate the integration of the primary care provider group—including ongoing data analysis, guidance on provider placement, consulting on the impact on core services, and practice optimization. Integration of large independent practices can be very taxing on organizations already limited with personnel. HSG Advisors was able to provide day-to-day management to ensure practice integration was optimal.

ABOUT HSG ADVISORS

HSG Advisors partners with health systems to transform their approach to markets, services, and providers for improved growth and operational and financial sustainability.

SERVICES

HSG CLAIMS DATA ANALYTICS

Data analysis leveraging all-payer healthcare claims data with HSG's insights and expertise to evaluate competitive dynamics related to markets, service lines, providers, and patients.

HSG STRATEGY

Strategic development for health systems' long-term goals and direction that allow for simultaneous pursuit of immediate market opportunities, with a focus on Growth Strategy and Medical staff Development planning.

HSG EMPLOYED PROVIDER NETWORKS

Building Shared Vision, designing organizational, leadership, and governance support structures for better quality and financial performance, and developing solutions for overall Operational Excellence.

HSG COMPENSATION AND COMPLIANCE

Provider compensation model development and implementation guidance for hospitals and health systems focused on sustainable solutions that promote market competitiveness, financial sustainability, and regulatory compliance.

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