# TURNING DATA INTO ACTION: OPTIMIZING HEALTHCARE OPERATIONS AND STRATEGY

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## **LEARNING OBJECTIVES**

#### Strategic Decision-Making with Data

• Learn how to integrate data analytics into your strategic planning process, ensuring that decisions around service line growth, resource allocation, and market positioning are grounded in objective insights.

#### Optimizing Operations with Financial and Workforce Data

 Explore how expense and labor productivity benchmarking can help healthcare organizations improve efficiency and maximize the value of their workforce.

### Enhancing Financial and Competitive Positioning with Price Transparency Data

• Understand how payer price transparency data can support more informed revenue projections, service line development, and competitive positioning in the marketplace.





# STRATEGIC DECISION-MAKING WITH DATA

## **ROADMAP**

Leveraging Market Share Data

**Data-Driven Market Resources** 

Practical Guides for Utilizing Market Share Data

## LEVERAGING MARKET SHARE DATA FOR PERFORMANCE

## **Strategic Planning**

• Utilize data to inform decision making to deploy long-term strategies that may require significant lead time to implement.

### **Benchmarking**

• Identify how you are performing against peers and competitors in your region.

## **Identifying Trends**

• Trends provides data in shifts in patient preferences and provides opportunities for your organization to adapt to those changing preferences more quickly.

# Ongoing Performance Management

• Utilize data to measure effectiveness of key performance indicators.

#### **External Confidence**

• Organizations utilize market data to obtain external resources (lending, community support, etc.).

## DATA-DRIVEN MARKET RESOURCES

## **Identifying Market Gaps or Strengths**

- Leverage data to understand how the organization is performing through review of your volumes in comparison to your peers.
  - (State Hospital Association, internal volume trends, Medicare data, review peer/competitor websites, Advisory Board, Definitive Healthcare)

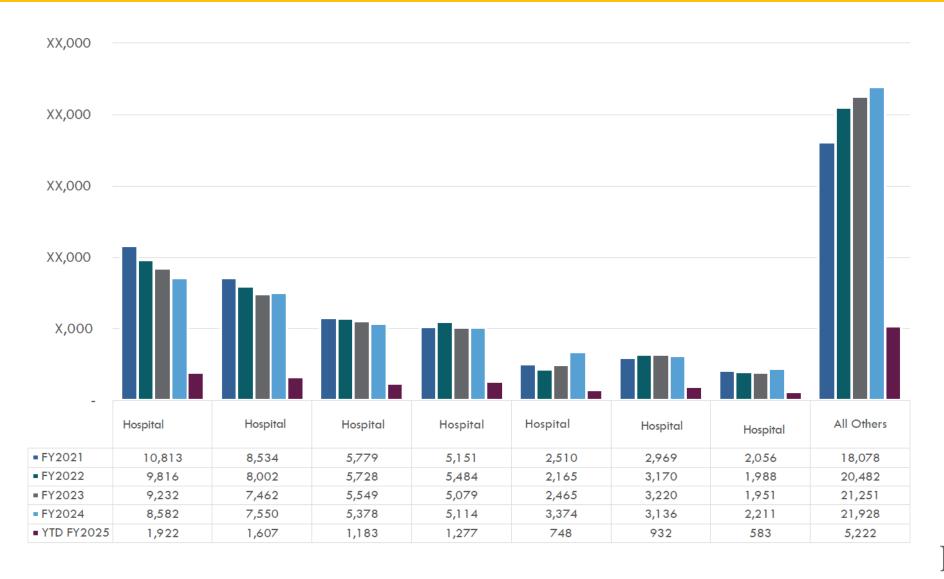
## **Identifying Service Area Needs**

- Use demographic data to inform what healthcare services might be needed and how your organization plans to provide those services.
  - (U.S. Census, U.S. Bureau for Labor Statistics, internal patient data trends, Environics)

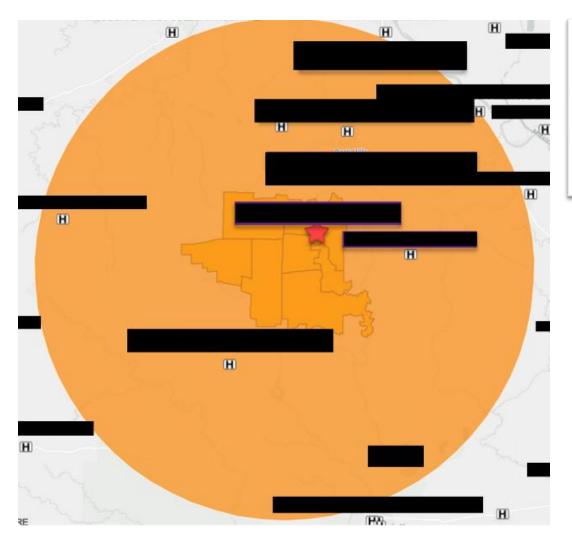
## **Using Predictive Analytics**

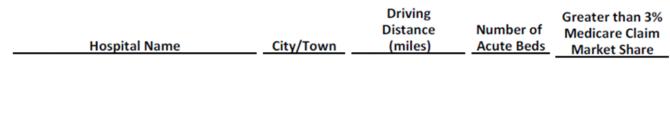
- Use data to predict future trends and patient behavior.
  - (internal volume trends and modeling, Advisory Board, Definitive Healthcare, Environics)











Consider other key comparative elements:

- Annual NPSR
- Number of employees
- Population of neighboring cities



#### **HOSPITAL AND CLINIC SERVICES — SERVICE COMPARISON**

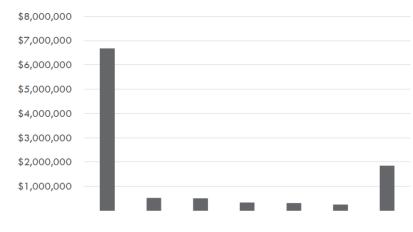


Catalog services and compare to facilities in your region.

Consider collaboration along with competitive opportunities.

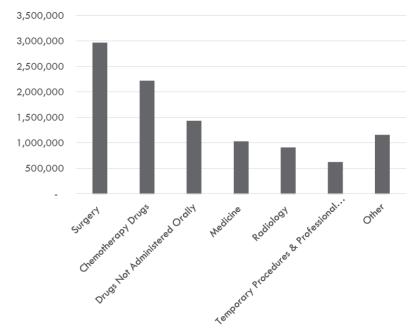
Gain awareness of leakage to other providers for specific services.

#### TOTAL LEAKAGE BY PROVIDER



Hospital Names

#### TOTAL LEAKAGE BY SERVICE





Identify specialties of interest and potential need today  $\rightarrow$  tomorrow.

#### **SPECIALTY OF INTEREST: ONCOLOGY**

**Oncology Capture Scenarios** 

PSA Demand: Estimated using Advisory Board market estimators.

· Market Share Scenarios: Three scenarios considered.

Purpose: Estimate procedure volumes at different PSA market shares (historical volumes not analyzed).

	Total Mark	et Volume	20% PSA M	arket Share	40% PSA M	arket Share	60% PSA Ma	arket Share
Oncology	2024 Volume	2029 Volume	2024	2029	2024	2029	2024	2029
Adoptive Cell Transfer	0	0	0	0	0	0	0	0
Chemotherapy	292	275	58	55	117	110	175	165
Radiation Therapy	295	251	59	50	118	101	177	151

Cancer Incidence (USCS Tumor Site and SEER Tumor Site)

PSA Demand: Estimated using Advisory Board Cancer Incidence Estimators.

	Total Mark	et Volume
USCS Tumor Site	<b>2023 Cases</b>	2028 Cases
Brain and Other Nervous System	1	1
Breast	14	15
GI	14	15
Gynecologic	4	4
Head and Neck	4	5
Hematologic	8	9
Lung and Bronchus	12	13
Melanomas of the Skin	4	5
Thyroid	2	2
Urologic	22	24
Other	0	0

	Total Mark	cet Volume	
SEER Tumor Site	2023 Cases	2028 Case	es
Brain and Other Nervous System	1		1
Breast	12		13
GI	16		17
Gynecologic	5		5
Head and Neck	6		7
Hematologic	13		14
Lung and Bronchus	16		18
Melanomas of the Skin	4		4
Thyroid	2		2
Urologic	24		27
Other	1		1



#### **SPECIALTY OF INTEREST: ONCOLOGY**

#### MEDICARE MARKET SHARE

MEDICARE MARKET SHARE								
Provider	Claim Share	Pay Share						
Hospital	281 (22.2%)	\$938k (21.8%)						
Hospital	231 (18.9%)	\$1.5m (34.5%)						
Hospital	231 (18.3%)	\$732k (17.0%)						
Hospital	199 (15.7%)	\$574k (13.3%)						



#### LEAKAGE REPORTING- CHEMOTHERAPY DRUGS

Provider	Payments
Hospital	\$155k
Hospital	\$404k
Hospital	\$233k
Hospital	\$73k
All Others	\$15k

#### LEAKAGE REPORTING - RADIATION ONCOLOGY

Provider	Payments
Hospital	\$16k
Hospital	\$10k
Hospital	\$31k
Hospital	\$14k

# Consider the current market opportunity.



## PRACTICAL GUIDES: IDENTIFYING SERVICE AREA NEEDS

#### Significant demographics:

- Populations
  - Aging cohort
  - Working cohort
  - Females 15-44 cohort
- Education
  - Minimum qualifications for hiring
- Households
  - Recruitment

-	<u>2010</u>	<u>2020</u>		Ž	<u> 2024</u>	į	<u> 2029</u>
Population	7,592		7,452		7,275		7,173
		₩	-4.18%	<b>♦</b>	-2.38%	<b>♦</b>	-1.40%
65+	1,471		1,526		1,617		1,705
		1	3.74%	1	5.96%	1	5.44%
75+	761		653		722		828
		₩	-14.19%	1	10.57%	1	14.68%
85+	225		227		233		249
		1	0.89%	1	2.64%	1	6.87%
Females 15 - 44	1,185		1,260		1,266		1,256
		1	6.33%	1	0.48%	₩	-0.79%
Adults18-65	4,376		4,091		3,906		3,796
		1	-6.51%	1	-4.52%	<b>♦</b>	-2.82%

Hous	Households							
2024	2029							
5,452	5,404							
•	-0.88%							

25+ Education	2024		2029
Less than 9th Grade	164		165
		1	0.61%
Some High School	241		239
		₩	-0.83%
High School Graduate	1,444		1,431
		₩	-0.90%
Some College	1,125		1,112
		₩	-1.16%
Associates Degree	699		684
		₩	-2.15%
Bachelors Degree	837		815
		₩	-2.63%
Masters Degree	220		210
		₩	-4.55%
Professional Degree	17		20
		1	17.65%
Doctorate Degree	2		3
		1	50.00%



## PRACTICAL GUIDES: IDENTIFYING SERVICE AREA NEEDS

-	<u>2024</u>	<u>2029</u>
> \$50,000	1,915	1,784
		-6.84%
\$50,000 - \$100,000	1,794	1,675
		-6.63%
\$100,000 - \$250,000	1,456	1,608
		10.44%
\$250,000 - \$500,000	173	202
		16.76%
\$500,000+	114	135
		18.42%

		Unemp	loyment Stat	istics			% of Po
Region	2020	2021	2022	2023	2024	Region	
County	X.X%	X.X%	X.X%	X.X%	X.X%	County	
State	X.X%	X.X%	X.X%	X.X%	X.X%	State	
United States	X.X%	X.X%	X.X%	X.X%	X.X%	United States	
Source: Bureau of Labor Sta	tistics - all rates a	re not seaso	nally adjusted	1		Source: United States Census Bureau	

Assess payor mix, insurance coverage, available labor for recruitment, anticipated healthcare needs from the community.



## PRACTICAL GUIDES: FUTURE ANALYTICS

Service Line	2023 Volume	2028 Volume	2033 Volume	5 Yr Growth	10 Yr Growth
Cardiology	9,857	10,441	10,951	5.9%	11.1%
Cosmetic Procedures	756	800	866	5.7%	14.5%
Dermatology	4,363	4,491	4,668	2.9%	7.0%
Endocrinology	211	262	308	24.1%	46.1%
ENT	3,256	3,508	3,754	7.7%	15.3%
Evaluation and Management	100,779	105,567	110,344	4.8%	9.5%
Gastroenterology	2,461	2,479	2,539	0.7%	3.1%
General Surgery	594	612	647	3.0%	8.9%
Gynecology	899	959	1,059	6.7%	17.8%
Lab	43,811	47,393	50,865	8.2%	16.1%
Miscellaneous Services	21,300	22,650	24,629	6.3%	15.6%
Nephrology	542	573	606	5.8%	11.7%
Neurology	1,698	1,771	1,876	4.3%	10.4%
Neurosurgery	89	95	107	6.3%	19.8%
Obstetrics	376	372	373	-1.3%	-0.9%
Oncology	1,572	1,591	1,655	1.2%	5.3%
Ophthalmology	9,083	9,559	10,242	5.2%	12.8%
Orthopedics	3,020	3,275	3,658	8.4%	21.1%
Pain Management	1,149	1,229	1,327	7.0%	15.5%
Physical Therapy/Rehabilitation	25,063	28,766	35,094	14.8%	40.0%
Podiatry	1,618	1,578	1,592	-2.5%	-1.6%
Psychiatry	12,771	15,458	17,123	21.0%	34.1%
Pulmonology	1,393	1,340	1,274	-3.8%	-8.6%
Radiology	29,555	30,637	32,191	3.7%	8.9%
Spine	199	224	243	12.5%	21.8%
Thoracic Surgery	55	55	55	0.8%	0.6%
Trauma	752	768	791	2.1%	5.3%
Urology	1,009	973	986	-3.5%	-2.39
Vascular	1,687	1,804	1,941	6.9%	15.1%

Total PSA Volume	PSA Volume	Inmigration Volume	Volume	Estimated Unit Charge	Estimated	Estimated	Estimated
Volume	Volume	Volume	Volume	Unit Charge			
				Onit Charge	Total Charge	Contractual	Net Revenue
-	-	-	-		\$ -	\$ -	\$ -
						5 -	<u>- \$ -</u>

Predict future volumes and translate those volumes into proforma financial statements.



## **COMMON DISCOVERIES**

#### **Patient & Consumer Behavior**

- Out-Migration Trends
- Shifts in Patient Preferences
- Demographic Changes

#### **Competitive Landscape**

- Market Share Insights
- New or Expanding Competitors
- Reputation & Brand Perception

#### Service Line Performance & Growth Opportunities

- High-Demand Services
- Underutilized or Declining Services
- Gaps in Care

#### **External & Industry Trends**

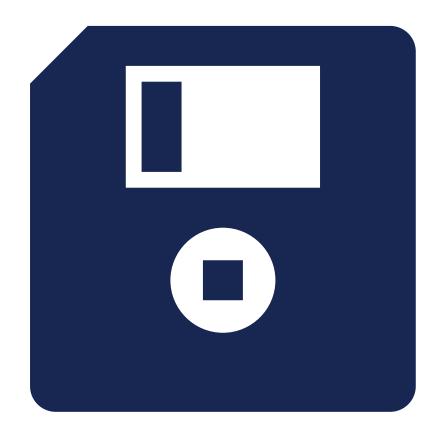
• Economic & Social Factors – inflation, employment trends, policy shifts





## PAYER TRANSPARENCY

## **PLANS AND ISSUERS**



- Machine-Readable Files:
  - In-Network Rate File
  - Allowed Amount File



#### Machine-Readable Files (MRF)

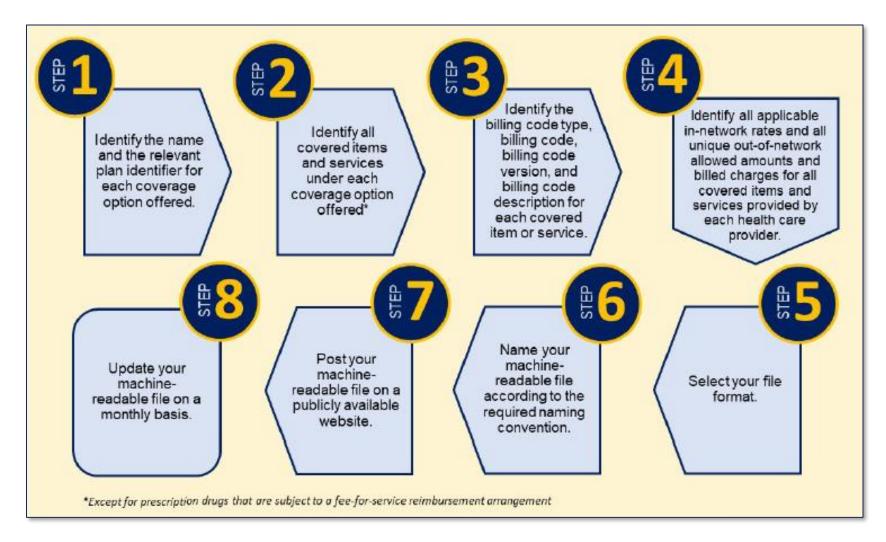
- Structured and *standardized* data
- Easily processed by software applications without manual intervention.
- Samples: JSON, XML

#### Non-Machine-Readable:

• Scanned PDFs, Images of Text



## **CMS GUIDANCE TO PAYERS**

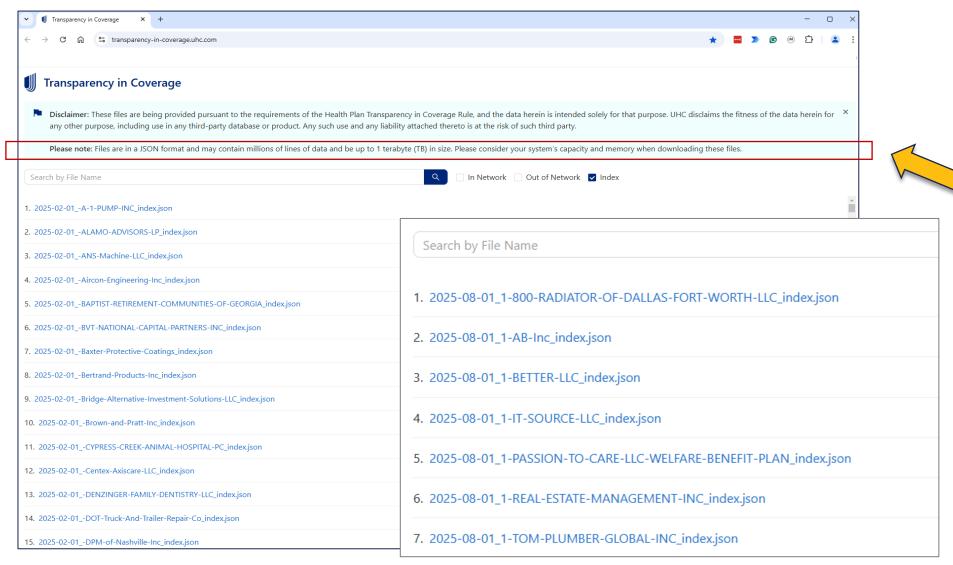




"Plans and issuers must disclose all applicable rates for covered items and services provided by in-network providers. To do this, plans and issuers should start by gathering information from their provider contracts, rate sheets, or other files regarding their applicable rates with in-network providers for covered items and services (see discussion below regarding the types of applicable rates)."

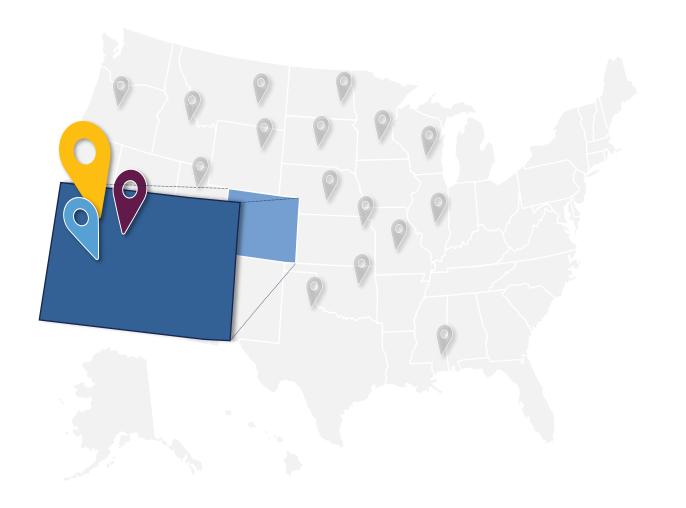


## **UHC FILES — SAMPLE**





## COMPARISON



Entity	Office Visit Code 1	Surgery Code 1	Radiology Code 1		
Client	\$250	\$1,000	\$500		
Clinic #1	\$175		\$350		
Hospital #1 \$300		\$750	\$325		



## SAMPLE RADIOLOGY CODE

CPT Code 70553 MRI Brain: With and without contrast

Aggregate Commercial Payer 1									
NPI	TIN/EIN	Org Name	Modifier	Min Rate	Max Rate				
#########	##-######	Client – XYZ Hospital	TC	\$445.32	\$526.08				
#########	##-######	Client – XYZ Hospital	26	\$207.44	\$234.28				
#########	##-######	Client – XYZ Hospital		\$652.76	\$760.36				
#########	##-######	Competitor – ABC Hospital	TC	\$574.85	\$574.85				
#########	##-######	Competitor – ABC Hospital	26	\$267.61	\$267.61				
#########	##-######	Competitor – ABC Hospital		\$842.47	\$842.47				

## **CASE STUDY**

## **Contract Negotiations**

CPT Code – 71406 Chest X-Ray

Client Facility

**\$196**Payer 1

\$32

Payer 2

\$75

Payer 3

**Competitor Facility** 

\$81 Payer 1 \$225

Payer 2

N/A Payer 3



## CASE STUDY

## Sample Comparisons

#### Direct (1:1 Comparison)

Code	Modifier	Description	Units	Client Max Rate	Competitor 1 Max Rate	Rate Difference
			1	\$\$	\$\$	(\$1,077.56)
			3	\$\$	\$\$	(\$1,057.23)
			7	\$\$	\$\$	(\$984.99)
			8	\$\$	\$\$	
			60	\$\$	\$\$	(\$769.56) (\$750.05)

#### **Utilization Comparison**

					Competitor 1	Rate	Total Client	Total Competitor 1	Competitor 1 %	
CPT	Modifier	Description	Units	Client Max Rate	Max Rate	Difference	Max	Max	Difference	Impact
			3120	\$\$	\$\$	(\$134.96)	\$\$	\$\$	%	(\$421,075)
			2496	\$\$	\$\$	(\$119.53)	\$\$	\$\$	%	(\$298,347)
			27196	\$\$	\$\$	(\$7.15)	\$\$	\$\$	%	(\$194,451)
			1735	\$\$	\$\$	(\$85.92)	\$\$	\$\$	%	(\$149,071)
			1999	\$\$	\$\$	(\$42.37)	\$\$	\$\$	%	(\$84,698)





## FEE SCHEDULE ANALYSIS — CASE STUDY

CPT Code	Total Practice Non- Facility Units	Current Gross Charge	Plan and Reimbursement	Payer 💆 Non-Facility
15850	1	\$50.00	Payer 👸 Non-Facility (\$108.98), Payer 🐜 Non-Facility (\$108.98), Payer 🐏 Non-Facility (\$75.56), Payer 🐼 Non-Facility (\$92.52), Payer 🐞 Non-Facility (\$89.97), Payer 🍕 Non-Facility (\$89.97)	N/A
92542	2	\$58.00	Payer ૄ Non-Facility (\$72.94), Payer 😹 Non-Facility (\$92.39)	Billed 0 Units
41530	14	\$3,900.00	Payer 🗽 Non-Facility (\$4,668.6)	Billed 1 Unit
69705	16	\$3,500.00	Payer 😹 Non-Facility (\$5,711.99)	Billed 1 Unit
69801	26	\$435.00	Payer ૄ Non-Facility (\$934.61), Payer 💀 Non-Facility (\$646.67), Payer 💹 Non-Facility (\$1,069.2)	Billed 1 Unit
69706	36	\$3,500.00	Payer 😹 Non-Facility (\$5,881.2)	Billed 2 Units
31297	46	\$4,519.24	Payer 💹 Non-Facility (\$6,658.19)	Billed 2 Units
31296	73	\$4,004.46	Payer 💹 Non-Facility (\$6,721.2)	Billed 3 Units
92584	118	\$151.00	Payer 🛴 Non-Facility (\$163.64),	N/A
92567	152	\$31.00	Payer 😹 Non-Facility (\$34.2)	Billed 34 Units
92557	217	\$82.00	Payer 🗽 Non-Facility (\$83.4)	Billed 40 Units
31295	500	\$3,224.29	Payer 🗽 Non-Facility (\$3,589.81)	Billed 28 Units
70486	912	\$200.00	Payer ૄ Non-Facility (\$203.08), Payer 💀 Non-Facility (\$226.28), Payer 💹 Non-Facility (\$233.2)	Billed 57 Units
9511 <i>7</i>	4,417	\$23.00	Payer 🚱 Non-Facility (\$24.64), Payer 😹 Non-Facility (\$24.61)	Billed 213 Units
95165	24,585	\$16.00	Payer 😹 Non-Facility (\$17.41)	Billed 1,440 Units

**Professional Rate** 

## MERGERS, ACQUISITIONS, & STRATEGY

When thinking about how to use data strategically, we can leverage payer data to see where we are being reimbursed better than our competitors.

					Competitor 1	C	ompetitor 1	Competitor 2	Competitor 2	Competitor 3	Competitor 3
Code Category	Total Charges	Units	Client Min	Client Max	Min %		Max %	Min %	Max %	Min %	Max %
Consultations & Evaluations	\$30,424,682	470,919	\$8,648,491	\$22,527,041	-57%	<b>⊘</b>	-10%	%	%	%	%
Surgeries & Procedures	\$18,490,979	69,723	\$4,796,801	\$13,800,869 (	16%		-5%	%	%	%	%
Laboratory & Diagnostic Tests	\$9,074,155	278,296	\$2,512,303	\$4,531,931	-69%		-28%	%	%	%	%
Pharmacotherapy & Drug Administration	\$7,775,999	28,406	\$2,198,263	\$5,902,851 (	32%		-20%	%	%	%	%
Imaging & Radiology	\$3,752,063	189,012	\$915,688	\$2,801,964 [	37%		-12%	%	%	%	%
Cardiovascular Procedures	\$546,101	33,996	\$109,156	\$182,381 🕕	22%	0	309%	%	%	%	%
Anesthesia Services	\$134,765	1,532	\$34,918	\$98,381 🕕	106%	✓	-25%	%	%	%	%
Rehabilitation & Physical Therapy	\$4,942	1,180	\$1,222	\$3,865 🗸	-5%	✓	-28%	%	%	%	%
Total	\$70,203,685	1,073,064	\$19,216,841	\$49,849,282	-34%		-24%	%	%	%	%



## **MULTITUDE OF USE CASES**



## Contract Negotiations



Recruitment



Mergers & Acquisitions



General Strategy





# **PRODUCTIVITY**



## PRODUCTIVITY 101



- Optimizing staffing resources to align with patient volume and acuity ensuring high-quality care is delivered efficiently and effectively.
- Leveraging benchmarks, ensuring apples to apples comparisons.



 Collect and analyze data in a meaningful way that allows for effective decision making.



 Ensures departments are appropriately staffed, making roles more attractive to candidates by preventing overstaffing/ understaffing and promoting sustainable workloads, beneficial for both recruitment and retention.

## STATE OF PRODUCTIVITY

## **CURRENT**

- Gaps in salary expense management
- Inconsistent hiring practices



## **IDEAL STATE**

- Benchmarking
- Position control process
- Integration



## **DEPARTMENTAL PRODUCTIVITY**

Productive Hours

Departmental Volumes

Overtime Hours

Management Ratios

Labor as % of Total Expense

Benchmarks

Variances

Wages by Job Codes



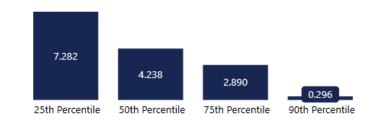
## INDIVIDUAL DEPARTMENT SNAPSHOT

#### **Acute Benchmarking Comparison**



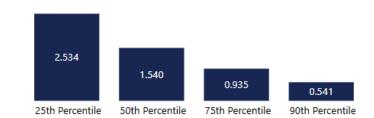
#### Ratio of Non-Management to Management Hrs

Benchmarks as FTE's



#### Overtime Hrs as % of Productive Hrs

Benchmarks as FTE's



	12/1/2023	12/1/2024
Productive Hrs / Equivalent Patient Day		
25th	42.00	38.45
50th	29.85	28.69
75th	23.24	23.71
90th	20.12	20.38



## BRINGING IT ALL TOGETHER

## HOW TO TIE IT ALL TOGETHER





# QUESTIONS?



# THANK YOU!

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