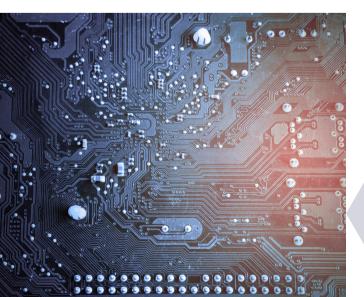
REDEFINING PATIENT CARE THROUGH DATA-DRIVEN WORKFORCE OPTIMIZATION





HEALTHCARE ANALYTICS CASE STUDY







BACKGROUND

- City Public Health Department (CPHD): A leading healthcare provider with multiple hospitals and clinics.
- Nearly 100 Years of Service: Providing healthcare to City residents and visitors
- **Mission:** Promote physical, mental, and environmental health, and protect against disease, injury, and disability.



CHALLENGES

- Workforce Utilization Inefficiencies:
 - Suboptimal utilization rates for occupational, physical, and speech therapists
 - Long patient wait times and inconsistent therapist-patient ratios

Unstructured Hiring & Staffing Process

 Staffing numbers were assigned randomly, without data-driven alignment to patient needs or volume.

Missed Revenue Opportunities

- Lack of insight into service profitability
- Overworked physicians = decreased efficiency and reduced revenue potential



SOLUTIONS



DATA INTEGRATRATION WITH REAL-TIME DASHBOARDS

	City H	ospital	Occuj	pation	al, Phys	sical, a	and Spee	ch T	nerapy Productivity	Scoreca	rd		De	finitions
partmo	ent	0		herapist II		۵	Team All		Pay Year All			Pay Period All		0
Therapist	SMETH, JOHN SMITH, JANE SMITH, JOE JONES, JOE JONES, JOHN DOE, JOHN DOE, JOHN		Individual F	Productiv	ity		108% 102% 200% 95% 94% 94%		BTU Minutes Worked by Pa		52% 46% Pa@eriod	49% 		46% 3%
E	mplayee	0% Hrs Worked	20% Total Minutes	40% Percent	60% roductivity BTUs	80% Units	100% 120 Charges	S6 BTU Per	Over All % Productivity			Worked by De	partment	
° SMI	ТН, ЈОНМ	3,177.70	56,280.00		46,350.00	2,160.00	\$297,615.80	Hours 14.59		100%	150K		127K	
	TH, JANE TH, JOE	-5.70	245,280.00		-456.00	7.00 0.00	\$1,702.00	80.00 NaN	BTU/Minutes worked by tea		0M SINOH			
JON	IES, JOE IES, JANE IES, JOHN	0.00 0.00 -291.40	121,920.00 0.00 581,760.00	0%	0.00 0.00 -23,329.00	0.00 0.00 -1,093.00	\$0.00 \$0.00 (\$173,284.00)	NaN NaN 80.06	16.19% 45.66%	Team Inpatient Outpatient Wound/Burn	50K			51K
Total		372,133.05	44,176,670.00	54% 23	1,976,210.00 81	2,727.00 \$15	8,246,070.83	64.43	35.21%	• (Blank) • ED	ок	THERAPY	CCUPATIONAL THERAPY Department	SPEECH THERAPY

City Hosp SYSTE		Occupational, Physical, and Speech Therapy Productivity Scorecard									
	PayYear All	٥	Pay Period All	C Al							
BTU and Qua	ntity by Therapist										
			~~~								
		_	Therapist								
5 Variable	Cost Center Productivity										
	OCCUPATIONAL THRI 7,862,914.00	187,923.64	267,754.66	70%	2,349.05	3,346.93					
- 0 0247		Target Hours	Total Hours	% of Target	Target FTE	Actual FTE					
- 0.0247	Total BTU	Target Hours	Total Hours	70 OF Target							
- 0.0239	Total BTU PHYSICAL THERAPY	Target Hours	Total Hours	76 OF Target	inger i z						
- 0.0239	PHYSICAL THERAPY 12,839,981.00	317,147.53	370,355.97	86%	3,964.34	4,629.45					
- 0.0239	PHYSICAL THERAPY					4,629.45 Actual FTE					
- 0.0247 - 0.0239 - 0.0219	PHYSICAL THERAPY 12,839,981.00	317,147.53	370,355.97	86%	3,964.34						
- 0.0239	PHYSICAL THERAPY 12,839,981.00 Total BTU	317,147.53	370,355.97	86%	3,964.34						

### **PRODUCTIVITY TRACKING**

Individual productivity was and team measured using Business Therapy Units (BTUs), calculated as the variance between outpatient physical therapy business units and the monthly budget. Combined with department hours worked and team minutes per pay period, these metrics provided administrators insights to optimize productivity. This helped the city schedule therapists more effectively, ensuring adequate break times, reducing burnout, improving job satisfaction, and ultimately enhancing patient care quality.

#### FULL-TIME EQUIVALENT (FTE) MONITORING

A real-time view of target versus actual FTEs provided insights into workforce allocation and improved planning based on patient demand. These FTE measurements also quantified workforce-driven revenue, helping identify unprofitable services and missed revenue opportunities, enabling the city to optimize its service offerings.

## **IMPACT** & **KEY OUTCOMES**

solutions V3iT's real-time transformed management, reducing patient workforce wait times and enabling a more personalized, efficient care experience. With optimized productivity and therapist balanced well as effective resource workloads as allocation the city saw improved iob satisfaction, greater patient satisfaction, and higher-quality outcomes. Financial insights allowed for a strategic focus on profitable services, ensuring sustainable growth without compromising care standards.

By delivering a data-driven, adaptable approach, V3iT empowered the city to build a resilient healthcare system-one poised to healthcare meet evolving demands. For leaders seeking to drive efficiency, enhance care quality, and secure operational sustainability, V3iT's solutions offer a proven pathway forward.



### www.V3iT.com/healthcare



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+1630 - 245 - 1400

advantage@v3it.com