

CASE STUDY

# How Dignity Health Opened Up Operating Room Capacity



Dignity Health is a nonprofit network with 400-plus care centers, including community hospitals, urgent care, surgery and imaging centers, home health, and primary care clinics in Arizona, California, and Nevada.

By establishing and nurturing cross-functional partnerships across different teams, Dignity Health gained access to near real-time operating room performance data, trends, and predictions down to the surgeon level. This not only improved OR utilization, it streamlined the scheduling process for OR schedulers and surgeons, and enhanced the opportunity based on patients' preferences.

### **Problem: Lack of Visibility, Limited OR Access, Poor Block Utilization**

Dignity Health Perioperative Services found that traditional block management methods for surgical schedules resulted in a lack of visibility into what block time would ultimately go unused. They relied on a time-consuming manual release process dependent on each physician office. Outdated "phone and fax" methods to change schedules were inefficient and unproductive. Additionally,

## CommonSpirit

### Dignity Health + Catholic Health Initiatives

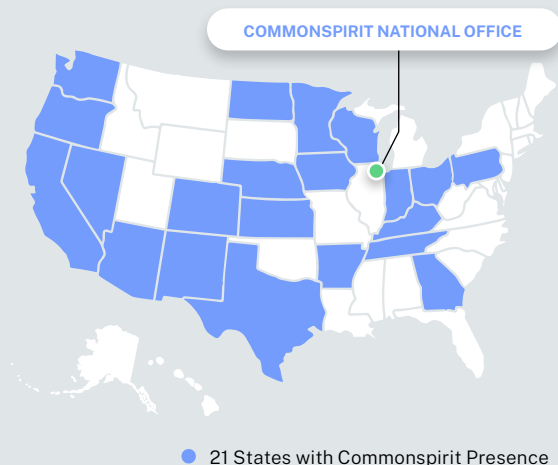
21 States

9,000+ Physicians

\$17B in Assets

\$12.9B Net Revenue

250+ Operating rooms



there was low accountability for block time using block utilization, a one-dimensional metric, as the benchmark. Influence, not data, often drove allocation. OR access was needlessly limited.

Valuable information was also buried in hundreds of reports that took too much time to produce and consume. Valuable OR time went unused, impacting surgeon satisfaction, patient access and hospital ROI. Dignity Health leadership needed a predictive and prescriptive approach to analyzing and increasing OR utilization. It was time to adopt a new technology and realize a greater return on investment.

### **Solution: Technology Supports Visibility, Accessibility, Accountability for Block Use**

iQueue allowed for these teams to align on:

- What is happening in the OR from a performance perspective
- What OR inventory is truly available
- Where there's opportunity for growth—and how to achieve it

The Dignity Health Executive Leadership team searched for a solution that promoted their enterprise core values of collaboration, inclusion, integrity, and excellence. They partnered with LeanTaaS to deploy iQueue for Operating Rooms' three modules system-wide. Dignity Health's parent company, CommonSpirit Health, facilitated the deployment process through a collaboration between Patient Care Services (Perioperative Services) and IT Digital and Software Engineering teams.

The tools were operationalized by key OR stakeholders, as well as by physician outreach/market representatives and business development liaisons. All engaged in a closed-loop cycle that synergized in-house hospital personnel with market development and sales to comprehensively merge actual OR conditions-to-market positions.

iQueue allows surgeons to see available capacity at any system hospital where they are credentialed, increasing the chance that volume will stay within the hospital network. The solution created a systemwide “apples to apples” comparison of OR performance, so it is easy to identify top performers in any KPI and seek out their best practices.

The three aforementioned iQueue modules – **Analyze**, **Collect**, and **Exchange** – address three main pillars to improve OR performance and efficiencies: Visibility, Accountability, and Accessibility

Exchange created OR access for surgeons needing time through an Open Table-like “marketplace for Open Time.” It encouraged proactive release of allocated block time and created transparency into open time. The result? Shorter wait times for patients, more efficient schedules, and higher case volume.

Collect changed Block Policy to focus on large chunks of unused block time that were truly reusable by the OR - “Collectable Time” instead of “Block Utilization.” Collect analyzed historical usage of allocated block time and identified patterns to determine the unused “Collectable Time” that could be released or repurposed to fill with other cases. Shifting focus to the more surgeon-centric “Collectable Time” from “Block Utilization” resulted in more accountability for block time and increased patient access.

Analyze created a single source of truth for understanding OR performance and decision making. Significantly improving provider engagement, it shed light on credible performance metrics through mobile and web “push.” It allowed Dignity Health to predict high and low volume days, underutilized blocks, trends and anomalies accessed through a web-based, user-friendly dashboard.

## Results: Increased Block Utilization, Release Proactivity and Growth of Surgical Market Share

Dignity Health tapped iQueue for OR to identify changes in business patterns, identify opportunities for growth by unlocking OR time, and have more data-driven and actionable conversations with care practitioners. This helped further foster the system's core value of integrity by establishing one single source of truth for analytics and OR accessibility.

By deploying the iQueue product suite across its 250+ ORs, Dignity Health in turn received actionable, personalized insights that advanced the timely delivery of quality patient care. These insights enabled impressive results including growth of surgical market share, improved daily efficiencies and asset utilization, and hardwiring best practice behaviors within EHR and operations management.

Adopting a "virtuous cycle" mindset, Dignity Health minimized unused OR time whilst maximizing utilization simultaneously by unlocking OR capacity for all surgeons, via proactive block release patterns. A "virtuous cycle" is a chain of events in which one desirable outcome leads to another, resulting in a continuous process of improvement. iQueue's Exchange module provided surgeons and schedulers alike increased visibility into the OR schedule and the opportunity to release and request OR time, through a seamless, web-based, and device-agnostic process. The exponential increase in total number of blocks released year over year - a 153% increase - illustrates the genesis of downstream benefits.

Dignity Health's OR teams also opened up 2.6 million minutes of service systemwide by releasing block time via iQueue, with an average lead time of four weeks ahead of the date of surgery. This increased access to patient care, especially in under served communities, and reduced patient wait times. On average patients' surgery dates were identified more than three weeks in advance of the

## Additional Contribution Margin ROI: 14.5X

*All comparative figures based May 2019 - December 2020 compared to previous YoY.*

Number of Blocks Released	Release Proactivity	Release Fill Rate	Staffed Room Utilization	Prime Time Utilization despite COVID-19*
153% Increase	26 Days	21%	9% Increase	0% YoY Change

\* Covid-19 has significantly impacted the healthcare industry nationwide and perioperative services, specifically elective case scheduling and block management which has diminished hospitals' and health systems' asset utilization potential.

date of surgery, and appointments were confirmed within 24 hours. This helped bridge the healthcare disparity gap in several communities of service, unlocking wider access to surgical care in a patient friendly, timely manner. This helped Dignity Health further champion its core value of inclusion.

Year-over-year, Dignity Health more efficiently utilized staffed rooms and specialized ORs. In turn all Dignity Health divisions significantly improved performance, each realizing millions of dollars in increased revenue.

Despite COVID-19's impact on operating rooms nationwide, Dignity Health was able to maintain block and prime time utilization metrics at 56% and 46%, respectively without a decrease. This shows how Dignity Health has operationalized its core value of excellence, maximizing asset utilization through improved visibility into data analytics, OR performance monitoring, and scheduling optimization in an unprecedented crisis throughout the majority of calendar year 2020.

The 36 hospital locations in aggregate have achieved an additional contribution margin upwards of 14.5x ROI over the span of 18 months.