ANALYTICS FOR OPERATING THEATRE OPTIMISATION

BRG DRIVE™ is BRG's Analytics as a Service platform, created to help our clients and consulting teams create and sustain results. While DRIVE has been used to provide visibility and accountability in a myriad of business and clinical disciplines for our healthcare clients, our ability to improve operating room theatre efficiency has been a particular area of success.

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Operating Theatre Utilisation: A Need for Visibility, Analytics and Performance Improvement

One of BRG's US-based healthcare clients reported issues of low OR utilisation leading to higher costs and waste in the system, and engaged BRG to address the issues they faced:

- **On-time case start tardiness:** Operational leaders cited timeliness as a key issue that lead to inefficient room usage and additional hours worked by staff to cover cases that went far beyond the scheduled closing time for each of the theatres.

- **Mismanagement of scheduled time:** Though surgeons were given specific blocks of time in the theatres, management interviews referenced that surgeons were requesting late cancellations, and scheduling surgeries outside of their allotted times. This produced the need for more staff and gaps of utilisation, but none of this could be accurately reported by any existing systems.

- **Siloed data:** The root cause of the issues was that there was no central, aligned source of data from the multiple facilities using different data systems. Canned reporting in each system was different which produced discord regarding both goals and prioritisation of improvement initiatives.

- **Low visibility:** Because of the siloed data and lack of reporting systems, this client did not have a unified platform where system leaders could view, compare and investigate issues at a comprehensive level to accurately identify issues, promote awareness of these issues, and drive accountability.

The Solution: BRG's Technology and Expertise, Combined

BRG's data experts received data files from each location and source system. The data was quickly normalised, processed and automated to provide data refreshes quickly to the BRG perioperative experts and the client. Leveraging the BRG DRIVE platform, the team deployed two specific analytics modules:

OPERATING THEATRE UTILISATION ANALYTICS

By providing a single analytical tool that provided system metrics with investigative metrics at the facility, room and surgeon levels, BRG experts could quickly identify the most important areas for improvement and build programmes to address these areas.

The Operating Theatre Utilisation module used the data warehouse produced to show theatre utilisation—based on specific room scheduling—by day of week, time of day, surgical specialty, specific surgeon and more.
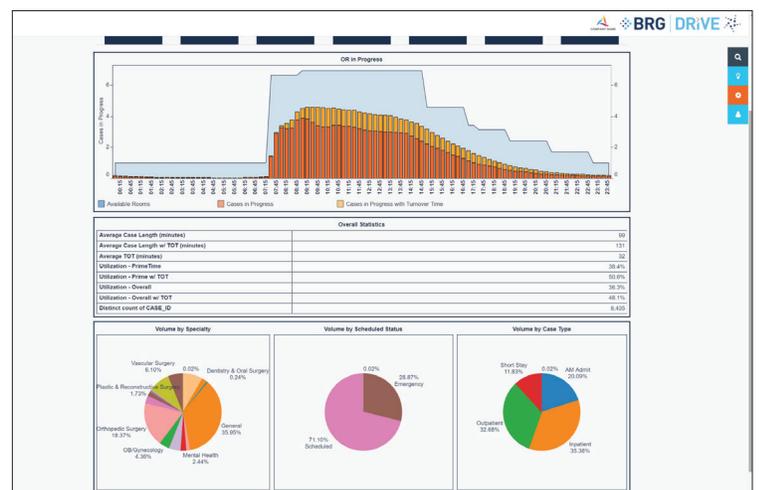
OPERATING THEATRE BLOCK TIME ANALYTICS

This module leveraged a significant amount of custom code, organization-specific policy and logic, and BRG governance best practices to report utilisation specific to each surgeon or surgical group.

The module quickly identifies how well scheduled blocks are being used. Within seconds, a DRIVE user can assess the specialties that are performing and those that are not, and discern which groups, surgeons and days of the week are the largest problem. Supporting stats at all levels are provided to make follow-up effective and fact-based.
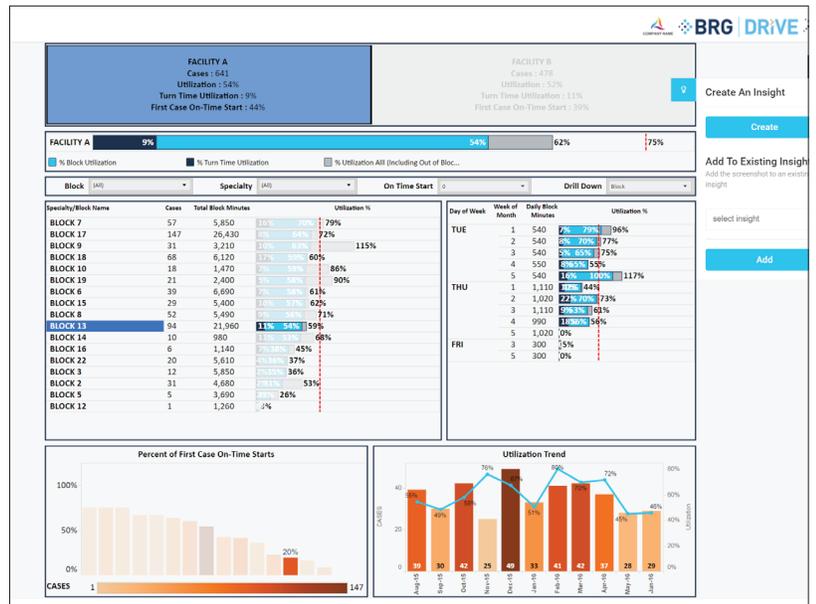
Results

Issues and related progress was instantly made visible to all relevant stakeholders via DRIVE which promoted accountability, collaboration and holistic, objective decision making. With a central source of truth shared among all relevant users, initiatives were implemented and monitored effectively:

- Nearly 30% more on-time case starts across the organisation's surgical facilities.
- Improved room utilization through room optimisation and room consolidation.
- Block time usage increased, reducing increased costs related to support staff overtime and on-call time.

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