



Specialty Services: Business and Clinical Analytics

MEDITECH's Business and Clinical Analytics Specialty Services group is a comprehensive and integrated group of individuals ready to assist clients in achieving clinical and operational excellence. Our team of data engineers and dashboard developers are trained to "get the data out" and provide visualizations that measure performance and outcomes for any process improvement project. Whether you're looking for new content or to maximize the content you have, trust the experts at MEDITECH.

Dashboard Example Use Cases		
<input type="checkbox"/> Departmental Productivity	<input type="checkbox"/> Executive KPIs	<input type="checkbox"/> ED Throughput
<input type="checkbox"/> RVU Provider Payment	<input type="checkbox"/> Revenue Cycle Projections	<input type="checkbox"/> Sepsis Management
<input type="checkbox"/> Patient Census	<input type="checkbox"/> Ambulatory Denials	<input type="checkbox"/> Laboratory

Departmental Productivity

This dataset and dashboard combination produces a summary of all customer-defined productivity metrics for each department in the healthcare facility. The dataset first utilizes a customer-defined mapping table to upload all specific attribute values that contribute to a department's productivity metric. The visualizations on the dashboard identify trends in the productivity metrics over time and compare to a specific benchmark.

Impact: Make informed decisions faster regarding staffing and expenses when changes happen in your operational data. Visually identify trends with departmental data.

Benefits:

- One dashboard for all departments
 - Security can restrict visibility of data
- Measure data by pay period for alignment with FTE scheduling and budgeting
- Self service analytics

Available Metrics: *metrics not listed can be evaluated through a professional services engagement*

- Ambulatory Visit Count by Location
- Acute Visit Count
- ED Visit Count
- Surgery Case Count by Patient Type
- Inpatient Visit Count by Inpatient Service and/or Location with/without Observation Count
- Patient Days with/without Observation Count by Location
- Outpatient Visit Count by Location
- Combination of Patient Days with/without Observation Count and Outpatient Visit Count by Location

- Revenue Cycle Transaction Count by Charge Procedure

Customer Success:

- Measuring departmental productivity has always been a challenge, now it can be done all in one place
- Hiring and resource allocation can be made with this dashboard

Executive Summary

This dataset and dashboard combination produces an Executive Dashboard of key performance indicators. The dataset first utilizes a customer-defined mapping table set to define the metrics of interest and the timeframes desired. The dashboard features a grid displaying all KPIs compared to the same timeframe of the prior year, prior day, or prior period for daily and period views. Each metric is also projected through the end of the current time period. Based on mapping, the sheet will display daily, period, quarterly, or yearly views. An interactive trailing trend graph is also featured for easy monitoring of metric values over time.

Impact: Analytics from a top down approach. Make this dashboard the first stop for your executive team. Quickly visualize all relevant metrics vs. comparison timeframes and projections. Identify areas of interest or concern to analyze and research further.

Benefits:

- One dashboard for Executive KPIs
- Customer-defined mapping displays executive chosen metrics and timeframes

Available Metrics: *metrics not listed can be evaluated through a professional services engagement*

- The [table](#) below provides a list of coded metrics; those not listed can be evaluated through a professional services engagement
- Operational Metrics
 - ED: ED Visits, ED Admits (Total or %), Average ED Wait Time, ED Admit Decision to Departure
 - Inpatient: Admissions, Average Length of Stay, Occupancy, Average Daily Inpatient Census
 - Surgical: Surgical Cases, Same Day Surgical Cases, Cost per Case, Surgery Duration, Surgical Observations, Surgery First Case Delays, Surgeries Cancelled or No Show
 - Outpatient: Outpatient Visits (by Location), Clinic Visits (Urgent Care/Pain Management), Same Day Clinic Visits
 - Observation: Observation Count, Observation Hours
 - Other: Laboratory Tests
- Revenue Cycle
 - Charges: Charges (by Financial Class, Procedure, Patient Type)
 - Receipts: Receipts (by Financial Class, Procedure)
 - Adjustments: Adjustments by Insurance, Adjustment %
 - Refunds: Refund Amount
 - Receivables: Receivables Amount, Receivables Greater than 90 Days, A/R Days, Days to Bill
 - Other: Bad Debt Transfers, RVUs (Provider), Surgical Case Contribution Margins
- Quality
 - Readmissions: 30 Day Readmission Count, Readmission Rate
 - Mortalities: Mortality Count, Mortality Rate
 - Sepsis: Total Sepsis Screenings, Sepsis Mortalities
 - Other: Hospital Acquired Condition Count, Opioid Rx %
- Payroll
 - Earning Types: Regular Hours/Dollars, Overtime Hours/Dollars, Vacation Hours/Dollars, Sick Hours/Dollars, Training Hours/Dollars
 - Other: Salary Expense, Total FTEs, Premium Pay

Customer Success:

- Having BCA as a source of truth versus multiple spreadsheets that are always outdated and missing components will save time and resources.

- An executive team that is always on the same page with the numbers allows us to move in the same direction.
- Knowing how the month is going to potentially end allows us to make changes to influence those numbers in one direction or another.
- When you need to add a metric, just call the BCA Professional Services Team and they will get right back to you.

ED Throughput

This flexible throughput dataset and dashboard accommodates multiple throughput measurements as well as various workflows to focus on any particular part of an ED patient's stay. As workflows are changed or updated, see near real time updates to track improvements in the patient experience. Dashboard flexibility captures the amount of time that is spent on various statuses during a patient's stay in the Emergency Room. Review specific patient populations such as admitted, psychiatric, transferred, or observation patients. Identify significant "returns" for patients that are returning to the Emergency Room after only a specified period of time. Calculate for a specific day, week, month or year to analyze trends and identify areas for process improvements.

Impact: Provide care as quickly as possible by better understanding the patients who enter the ED, their needs, and their experience.

Benefits:

- Daily Metrics delivered to Emergency Department decision makers to identify areas of need
- Identify and analyze patient flow for specific patient populations, e.g. psych population
- Incorporate RAD and LAB ED orders into your throughput metrics and analyze the effect on the patient LOS
- Comparison to industry standard benchmarks which lead to increased patient satisfaction

Available Metrics: *metrics not listed can be evaluated through a professional services engagement*

LOS Median	LOS Average	% Significant Returns	Decision Time To Departure
ER Holds Hours	Door To Provider	Arrivals Before 12 pm	LOS Average Psych Patients

Customer Success:

- Identify opportunities to improve ED throughput
- Hiring and resource allocation can be made with this dashboard

Provider RVU Validation and Monitoring

Eliminate the need to run multiple reports to then download and sift through the data in a spreadsheet. In this dataset and dashboard combination, you can easily identify that coding and charging has been completed before producing a RVU value for a particular provider. As the dashboard is updated daily, you can be proactive and identify issues early on, such as the presence of clinical documentation or a scheduled appointment, to validate all charges have been captured.

Impact: Single source of truth for RVU reporting that the entire EHR uses.

Benefits:

- Identify missing charges
- Pay providers accurately and provide RVU values in a dashboard that can be shared
- Self-service analytics
- Eliminate the manual compiling of data through reports and spreadsheets

Available Metrics: *metrics not listed can be evaluated through a professional services engagement*

Charge Count	Charge Offset Count	Charge TXN Count Total	Charge TXN Offset Count
RVU Work Offset Total	RVU Work Total	Unbilled TXN Count	ICR Count
RPT Count	RPT ICR Incomplete Count	EMR Note Count	EMR Note Deleted Count
EMR Note Pending Count	EMR Note Signed Count	EMR Note Pending Percent	

Customer Success:

- Save hundreds of hours each month from what is normally a manual process
- Minimal questions from providers regarding their RVU values

Revenue Cycle Projections

With this dataset and dashboard combination, executives and department directors are able to forecast the end of the month closing on several key metrics. Using actual amounts, then determining a daily average and applying to the days left in the month, allows a department head and/or executive to see where the month will close. Knowing this provides time to make adjustments to expenses and ensures the month closes in the positive.

Impact: Forecast month end closing at the executive level.

Benefits:

- Self-service analytics
- Compare data to same period prior month and prior year
- Ability to make informed decisions which impact bottom line before closing

Available Metrics: *metrics not listed can be evaluated through a professional services engagement*

Average Daily Charges	Average Daily Receipts	Count of Days in Month	Days Left in Month
Fiscal Year Charge Amount	Fiscal Year Charge Count	Fiscal Year Receipt Amount	Fiscal Year Receipt Count
Inpatient Revenue	Outpatient Revenue	Patient Count	Patient Count Charges
Patient Count Receipts	Period Charge Amount	Period Charge Count	Period Receipt Amount
Period Receipt Count	Prior Period Charge Amount	Prior Period Charge Count	Prior Period Receipt Amount
Prior Period Receipt Count	Prior Year Charge Amount	Prior Year Charge Count	Prior Year Receipt Amount
Prior Year Receipt Count	Projected Charges	Projected Receipts	Same Period Prior Year Charge Amount
Same Period Prior Year Charge Count	Same Period Prior Year Patient Count	Same Period Prior Year Patient Count Charges	Same Period Prior Year Patient Count Receipts
Same Period Prior Year Receipt Amount	Same Period Prior Year Receipt Count	Self-Pay Charges	Self-Pay Charges %

Customer Success:

- When large dips in revenue are forecasted, expenses can be adjusted to offset
- No more “surprises” on how revenue is going to close for the month

Sepsis Management

Whether you have self-installed MEDITECH's sepsis toolkit, installed as part of a [professional services offering](#), or are just interested in monitoring your established workflows for the early detection of sepsis, this dataset and dashboard is a great tool for giving you an in-depth view into your data. Through our experience, a highly personalized dashboard can be created for the Director of Quality and Nursing to monitor workflows and trends in the data.

Impact: Able to see opportunities to improve from data, measure changes in data when workflows are adjusted.

Benefits:

- Monitor sepsis screening rates
- Monitor sepsis mortality rate
- See the impact sepsis has on patient and facility, clinically or financially

Available Metrics: *metrics not listed can be evaluated through a professional services engagement*

30-Day Readmission Count	Action Taken Count	At-Risk Sepsis with Diagnosis Count	At-Risk Sepsis without Diagnosis Count
Inpatient LOS by Days	Inpatient LOS by Midnight	Sepsis Order Set Ordered Count	Positive Sepsis Screening with Sepsis Diagnosis Count
Positive Screening without Sepsis Diagnosis Count	Positive Screen Count	Readmitted Count	Screened Count
Sepsis Profile Qualifies Sepsis with Diagnosis Count	Sepsis Profile Qualifies Sepsis without Diagnosis Count	Sepsis Diagnosis not in ABS Count	Sepsis Diagnosis Present on admit flag Y/N?
Sepsis Expired Count	Sepsis Inpatient Diagnosis Count	Sepsis Inpatient LOS	Sepsis Primary Diagnosis Count
Sepsis Profile Qualified Count	Sepsis Readmission Count	Sepsis Total Charges	Total Charges
Sepsis Manual Screening False Positive Percent	Sepsis Profile False Positives Percent	Sepsis Inpatient LOS Days (Avg)	Sepsis Manual Screen Accuracy Percent
Sepsis Readmission Percent	Sepsis Screening Percent	Sepsis Total Charges (Average)	Visit Count

Customer Success:

- The ability to report on patients who have been identified as at risk for sepsis; with vigilant monitoring we can report lives saved using this dashboard
- Insight into the coding of unspecified sepsis diagnosis and opportunities, and the financial impacts

Patient Census

This “Go-LIVE” dataset and dashboard combination can be used to introduce key stakeholders in the organization to BCA, to establish a single source of reporting truth very early on. Many of the metrics listed in this dashboard are reviewed in the daily huddles which occur in every healthcare organization.

Impact: Daily Dashboard used to review key metrics regarding operational data in the EHR.

Benefits:

- A dashboard that is pushed daily at 7am
- Everyone looking at the same numbers
- Able to make staffing adjustments by location
- See if census is trending up or down from the previous day and or month

Available Metrics: *metrics not listed can be evaluated through a professional services engagement*

Bed Count	Admit Count	Closing Census	Deaths
Discharge Count	Discharges Only	One Day Stay	Opening Census
Location Change	Current Period Admissions	Current Period Admissions Closing	Current Period Discharges
Current Period One Day Admissions	Current Period Patient Days	Closing Period Patient Days	Prior Period Patient Days
Prior Period Opening Census	Prior Period Discharges	Prior Period One Days Admissions	

Customer Success:

- No longer is it a requirement for the departments or someone in registration to submit their daily census, it is now pushed automatically on one dashboard

Ambulatory Denials

Denials and Denial Management is costly for the providers and the EHR as a whole. It disrupts cash flow, increases A/R, and often results in write offs due to untimely filing practices. Understanding and measuring what is being denied is the first step in creating a process improvement plan. Gain insights into how much denials are impacting the overall financial health of the organization.

Impact: Measure first claim denial rate, improve processes, and measure again

Benefits:

- Identify WHAT billed procedures (CPTs) are being denied by frequency
- Aggregate denial volumes/amounts by Denial reasons to learn WHY

Available Metrics: *metrics not listed can be evaluated through a professional services engagement*

Claim Amount Total	Claim Sent Total	Claim Was Resubmitted Count	Claim With Remit Count
Claim Without Remit Count	Charge Transaction Amount Total	Charge Transaction Count	Charge Transaction CPT Amount
Charge Transaction CPT Final Bill Amount Total	Charge Transaction CPT None Amount Total	Charge Transaction CPT Not Final Billed Amount Total	Charge Transaction CPT Not Final Billed Count
Pay Transaction Amount Total	Claim Denial Payment Amount	Denial Amount by Denial Code/Reason	Denial Transaction Amount Total
Denial Transaction Amount Zero Count	Denial Transaction Count	Denial Transaction Amount Total	Claims Versus Charges
Claims Sent	Claim w/out Remittance	Claims w/Denial	Denial %
Denial % by Denial Code/Reason	Claims w/out Pay	CPT (incl on Claims Sent) Volume	CPT w/out Denial
CPT w/out Pay	Denial CPT w/out Pay	Claim Cpt Amount	Denial Amount
Claim Payment Amount			

Customer Success:

- Target CPTs with high frequency of denials by reason, and investigate opportunities to combat the denial reason with a process improvement initiative
- Measure the impact of process changes on the denial rates

Laboratory

The challenges of a hospital laboratory are well-suited to conventional approaches to process improvement. Limited processing slots, limited time, and limited staff support a broad range of assays for time-sensitive specimens. Our solution helps you analyze patterns in specimen submission and processing, so that you can easily identify bottlenecks that delay timely results.

Impact: Review specimen processing, compare turnaround time, and identify bottlenecks.

Benefits:

- Understand the baseline processing time set by your SOPs
- Easily identify sources of processing variation

Available Metrics: *metrics not listed can be evaluated through a professional services engagement*

Specimen Test Order to Collection (min)	Specimen Collection to Received (min)	Specimen Received to Resulted (min)	Specimen Resulted to Verify (min)
Specimen Order to Result (min)			

Customer Success:

- Identify assays with consistently long turnaround time
- Modify batch sizes for more consistent and timely processing

Table of Executive Metrics

Content Area	Category	Metrics			
Operational	ED	ED Visits	ED Admits (Total or %)	Average ED Wait Time	ED Admit Decision to Departure
	Inpatient	Admissions	Average Length of Stay	Occupancy	Average Daily Inpatient Census
	Surgical	Surgical Cases	Same Day Surgical Cases	Cost per Case	Surgery Duration
		Surgical Observations	Surgery First Case Delays	Surgeries Cancelled or No Show	
	Outpatient	Outpatient Visits (by Location)	Clinic Visits	Same Day Clinic Visits	Laboratory Tests
	Observation	Observation Count	Observation Hours		
Revenue Cycle	Charges	Charges by Financial Class	Charges by Procedure	Charges by Patient Type	
	Receipts	Receipts by Financial Class	Receipts by Procedure		
	Adjustments	Adjustments by Insurance	Adjustment %		
	Refunds	Refund Amount			
	Receivables	Receivables Amount	A/R Days	Days to Bill	Receivables Greater than 90 Days
	Other	Bad Debt Transfers	RVUs (Provider)	Surgical Case Contribution Margins	
Quality	Readmissions	30 Day Readmissions	Readmit Rate		
	Mortalities	Mortality Count	Mortality Rate		
	Sepsis	Total Sepsis Screenings	Sepsis Mortalities		
	Other	Hospital Acquired Condition Count	Opioid Rx %		
Payroll	Earning Types	Regular Hours/Dollars	Sick Hours/Dollars	Vacation Hours/Dollars	
		Overtime Hours/Dollars	Training Hours/Dollars		
	Other	Salary Expense	Total FTEs	Premium Pay	