THE INNOVATORS:
MEDITECH CUSTOMERS IN ACTION
INTRODUCTION

In 23 countries, healthcare organizations of all types and sizes are doing amazing things with our software — from urban IDNs that serve populations in the millions, to critical access hospitals and specialty care settings. The Innovators: MEDITECH Customers In Action introduces several of these organizations, so you’ll get a glimpse of how they’re using our EHR to improve processes, quality, and most importantly, patient outcomes.

Read on for a closer look at how customers are forging ahead with our fully interoperable, web-based platform. Their experiences illustrate why MEDITECH was ranked Best in KLAS in the Acute Care EMR (Community Hospital), Patient Accounting & Patient Management (Community Hospital), and Home Health EHR (Small) categories by the 2021 Best in KLAS: Software & Services report. This is the seventh consecutive year we’ve been recognized as Best in KLAS by the global healthcare research firm. Additionally, MEDITECH was ranked a close second by KLAS for Best Overall Software Suite, Ambulatory EHR (Over 75 physicians), and Acute Care EMR (Large Hospital/IDN).

No matter what challenges your organization is facing, you’ll find stories you can relate to, and learn from, in the pages ahead. We hope these summaries inspire you to download and read the full case studies; just look for the link at the end of each synopsis.
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## Success Stories

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MEDITECH's Expanse Point of Care Mobilizes Nurses at KDMC

About

- King’s Daughters Medical Center is a 99-bed, nonprofit acute care hospital in Brookhaven, Mississippi, that serves a five-county area with a population of around 100,000.
- In response to the community’s evolving healthcare needs, KDMC has expanded its services to include primary and specialty care across five clinics.

Challenge

Government mandates such as Meaningful Use required KDMC to ask for more from their nurses and therapists, as regulatory requirements increased their workloads. KDMC’s traditional methods of documentation and medication administration were safe but time-consuming, and limited the time nurses could spend facing their patients.

Execution

KDMC chose to become an early adopter of MEDITECH’s Expanse Point of Care software. Nurses and therapists were able to quickly conduct lab review, order review, nurse/therapist documentation, and medication administration using handheld mobile devices. This technology helped to make patient interactions more meaningful, as clinicians no longer needed to turn away from patients to use desktops or WOWs. Although the software was introduced on an opt-in basis, KDMC leadership saw impressive rates of adoption throughout the hospital.

After implementing Expanse Point of Care, nurses at KDMC realized the following benefits:

- The software decreased clicks and motion counts, and provided nurses the opportunity to be more engaged with patients
- The streamlined single sign-on process saved nurses time
- In one test, the software reduced single-medication administration steps from eight down to four.

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“With Expanse POC, we no longer need to choose between effectiveness and efficiency... the hospital can live at an intersection of the two.”

Joe Farr, RN
Clinical Applications Coordinator
King’s Daughters Medical Center
Physicians at **Halifax Health**

Go Mobile with MEDITECH Expanse

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**About**

• Halifax Health Medical Center (Daytona Beach, FL) is the hub of a system of more than 35 emergency departments, hospitals, and professional centers across central Florida — called Halifax Health.

• This 680-bed facility includes a level 2 trauma center and employs over 500 physicians representing 54 medical specialties.

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**Challenge**

Halifax Health Medical Center’s emergency department is both the largest in the state, and one most frequently visited by tourists. Its fast-paced ED and large out-of-town patient volumes challenged Halifax clinicians to find new ways to enhance operational processes and increase efficiency.

**Execution**

Halifax chose longtime partner MEDITECH to help them implement new mobile EHR technologies to improve the clinician and patient experiences. By combining process improvements with Expanse, providers were able to naturally improve their efficiency and reduce lengths of stay.

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Halifax Health found that the mobility and usability of MEDITECH’s Expanse EHR improved the experience of their providers and patients both in the acute setting and the ED. Halifax Health clinicians achieved the following:

• Mobile devices cut down on physicians’ administrative burdens, while improving workflows and satisfaction

• Having physicians use a tablet to review information at the bedside significantly enhanced patient experience

• EHR mobility improved ED throughput and reduced lengths of stay by 1/2 a day.

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“I was amazed after hearing our physicians use words like ‘gamechanger’ and ‘life-altering’ as we introduced mobility on the iPads. One busy ED physician reported an increase in relative value units (RVUs) by almost 20%, which is outstanding.”

**Tom Stafford**

VP and CIO

Halifax Health
Summit Pacific Increases Reimbursement, Clinic Volumes with MEDITECH’s Analytics Solution

About

- Located a short distance from the northwest coast, Summit Pacific Medical Center (Elma, WA), part of the Summit Pacific hospital district, is a Critical Access Hospital with a level IV trauma designation.
- It operates two rural healthcare clinics, an urgent care clinic, and a newly opened wellness center.

Challenge

Patient appointments at Summit Pacific Medical Center were always in demand, with providers’ schedules filling up fast. Yet physicians were still falling below their target patient volumes by almost 25 percent, compared to other area healthcare organizations. To help patients gain access to care, Summit Pacific needed to address the disparity between the number of appointment requests and the volume of patients seen.

Execution

After implementing MEDITECH across all care settings in 2017, Summit Pacific recognized an opportunity to analyze organization-wide data with MEDITECH’s Business and Clinical Analytics (BCA) solution. They determined that the information could help them to identify, and then refine, areas for performance improvement. Ultimately, leadership could draw on these results to prepare for the opening of a state-of-the-art wellness center.

Results

Summit Pacific has improved transparency among providers, executives, and staff, as they view and compare real-time information through centralized dashboards. By measuring results in real time versus waiting for quarterly reports, the medical center is able to respond more quickly with process adjustments and corrections. Since implementing BCA, Summit Pacific has experienced the following:

- 1.6 percent decrease in no-show rates
- An average increase of 1.3 patients per day per provider.
- 8 percent rise in daily clinic volumes
- 70 percent decrease in the amount of time between chart closures; the number of charts open at any given time decreased by 37 percent
- 18 percent reduction in A/R days by using the coder desktop to work through backlogs.

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“Data is simply facts or figures, but when it’s organized and presented in a way that makes it meaningful or useful, then it becomes information. BCA takes data and converts it into usable information for the end user, resulting in the ability to drive decision making, improve processes, and enhance the patient experience.”

Kayla Godfrey
CPHQ Decision Support Analyst
Summit Pacific Medical Center
About

• Union Hospital of Cecil County is a full-service community hospital in Elkton, MD.
• The 83-bed, not-for-profit organization has been nationally recognized for clinical excellence in the treatment and prevention of disease.

Challenge

Going completely digital and achieving HIMSS Stage 7 had been long-time goals for Union Hospital. After the hospital migrated to MEDITECH’s latest release in 2014, Union’s executive team decided paperless care, and achieving HIMSS Stage 7, were within reach. HIMSS Analytics tasked Union with presenting a minimum of three case studies that display how they harness analytics to drive change and improve practices.

Execution

Union assembled a core team to review HIMSS Stage 7 requirements and verify these had been met. They also collaborated with MEDITECH through our HIMSS Stage 7 Program to ensure they were prepared for the survey visit. The Union team’s 304-slide presentation, covering 12 case studies, wowed the surveyors and led to HIMSS Stage 7 designation.

Initiatives highlighted in this case study include:
• Working with multiple health information exchanges (HIEs)
• Oncology Nurse Navigator Program
• CAUTI reduction
• Lethality Assessment Program
• Implementing scanning to become 100% paperless.

Union encourages HIMSS Stage 6 hospitals to pursue Stage 7, noting that for them, it was a natural progression. The surveyors were particularly impressed with how “data rich” the hospital is; with the new designation, Union is confident they now have the leverage to continue harnessing technology to optimize patient care and incorporate best practices.

Achieving HIMSS Stage 7 sparked other process improvements, including:
• Connecting with two HIEs, saving their physicians an hour of paperwork per day
• Eliminating oncology care delays through improved navigator documentation
• Reducing cases of UTIs as well as their device utilization ratio (DUR) in each department
• Improving the monitoring of patients seeking help for domestic violence
• Going 100% paperless with Scanning and Archiving to eliminate searching through paper charts
• Improving teamwork and collaboration among departments.

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**Hilo Medical Center** Improves SEP-1 Compliance by 34 Percentage Points Using **MEDITECH’s** Expanse EHR

**About**
- Hilo Medical Center (Hilo, HI) is the largest employer in the Big Island of Hawaii.
- Located in a medically underserved area, where physician shortages hover around 35 percent, HMC’s surrounding community also exhibits some of the highest rates of chronic disease in Hawaii.

**Challenge**
HMC has been evolving its approach to sepsis over the years. In determining areas for quality improvement, the hospital found that 85 percent of sepsis cases were present on arrival at the emergency department. While MEDITECH’s ED Tracker provided clinical information from the patient’s EHR, staff needed a way to more quickly identify and treat septic patients.

**Execution**
Recognizing the need to better assess patients, hospital leaders looked to MEDITECH’s Sepsis Management Toolkit and Quality and Surveillance solution. Using the toolkit’s evidence-based and outcomes-focused implementation guide, staff aligned best practice workflows within the EHR. By refining such interventions, HMC continued to adapt its clinician workflow in the ED, making significant strides in quality improvement.

Within months of implementing MEDITECH’s Quality and Surveillance solution and guidance from MEDITECH’s Sepsis Management Toolkit, HMC surpassed Hawaii’s 68 percent core measure compliance by reaching 76 percent compliance for coded data.

- **Significantly improved SEP-1 compliance from 42 percent to 76 percent (coded data)**
- **Automated processes for earlier detection of potential sepsis**
- **Coordinated sepsis response among physicians and nurses.**

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“Sepsis has been a difficult core measure for us. Truthfully, it was driving us crazy to try to meet the ‘all or nothing’ requirements without excessive personnel cost or over-treating patients. But MEDITECH’s surveillance is a game changer. We now have action items built into our EHR, so we can alert physicians quickly when patients meet sepsis criteria and prompt the appropriate orders and documentation.”

**Jon Martell, MD**
CMIO
Hilo Medical Center
Deborah Heart and Lung Optimizes Patient Throughput with MEDITECH Business and Clinical Analytics

About
- As the Delaware Valley Region’s only specialty hospital dedicated to treating cardiovascular and lung disease, Deborah Heart and Lung Center (Browns Mills, NJ) treats some of the highest acuity patients in the area.
- Given the severity of the average patient admitted to Deborah, optimizing patient throughput is vital to the hospital’s success.

Challenge
Deborah was searching for a way to provide executives with timely access to current analytics, in order to support their performance improvement efforts. Although they had used Microsoft® Excel to track metrics in the past, this process was time-consuming, and the results were not always easy to interpret.

Execution
Deborah leadership implemented MEDITECH’s Business and Clinical Analytics solution to monitor the success of various initiatives and process improvement projects. The rollout of their first two personalized dashboards, the Surgical Intubation Times Dashboard and the 10 a.m. Discharge Dashboard, gave staff access to the data they needed to make these processes more patient-centric, and to decrease instances of patients waiting unnecessarily.

Results
Using personalized dashboards created through MEDITECH’s BCA solution, Deborah achieved the following results:
- Increased discharges before 10 a.m. sixfold
- Identified and addressed root causes for disparities in timeliness between physicians
- Backed suggestions for new projects and results of performance improvement projects with solid evidence
- Eliminated the risk of human error associated with downloading reports from other sources and manually compiling data.

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“The power of pushing ‘the right data, to the right person, at the right place, at the right time, and in the right format’ can be transformational. That’s what MEDITECH’s Business and Clinical Analytics solution does for us.”

Rich Temple
Vice President/ CIO
Deborah Heart and Lung Center
Alder Hey Children’s Transform Care with MEDITECH’s Interoperability Solutions

About
- Alder Hey Children’s NHS Foundation Trust (Liverpool, England) is one of Europe’s largest children’s hospitals, with over 330,000 patients and families visiting the Trust each year.
- In addition to the hospital’s main site, Alder Hey offers pediatric services at a number of community sites across Merseyside, Cumbria, Shropshire, Wales, and the Isle of Man.

Challenge
The NHS in the northwest counties of Cheshire and Merseyside (C&M), which includes Alder Hey, is working to connect healthcare and social services organizations through interoperability initiatives. As a main provider of pediatric care, Alder Hey works with children who transition to various outpatient settings; thus, they aspired to develop a method for sharing patient records across the region.

Execution
The NHS designates the creation of sustainability and transformation partnerships (STPs) — also referred to as health information exchanges (HIEs) — to promote more coordinated, cost-effective care. Many different vendors feed the C&M STP. To help develop the pathway for sharing patient information, Alder Hey elected to use the continuity of care document (CCD) available through MEDITECH, as MEDITECH is the only vendor using formatted data and global standards for cross-enterprise document sharing.

Within six weeks, Alder Hey and MEDITECH developed a CDA feed into the shared record, allowing clinicians to see a list of documents in the patient record including discharge summaries, radiology reports, pathology results, and standard demographics. Other benefits include:
- An improved user experience, as clinicians access information from other Trusts and GPs as part of their workflow
- The availability of necessary clinical information, to prevent duplicate investigations
- A reduction in time spent collating and summarizing clinical information from other Trusts and GPs
- Improved clinical decision-making due to the availability of relevant information during the clinical encounter.

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“We wanted to do something based on IHE standards and didn’t want to rely on complex integration. We quickly selected MEDITECH for their use of formatted data using XDS standards, and within only six weeks we had developed a CDA feed into the shared record. It was really easy to achieve and we now have a rich set of information.”

David Reilly
Head of Interoperability
Alder Hey Children’s

“Results”
RCCH HealthCare Partners Uses MEDITECH Toolkit and Surveillance Solution to Combat CAUTI

About

- RCCH HealthCare Partners spans 12 states, with its headquarters located in Brentwood, Tennessee.
- The organization comprises 18 regional health systems, and over 14,000 employees. Thirteen of RCCH’s hospitals use MEDITECH’s EHR.

Challenge

RCCH sought to eliminate inconsistencies in their approach to preventing catheter-associated urinary tract infections (CAUTI), and to implement uniform best practices for indwelling catheters across the five hospitals on MEDITECH’s most recent release. To do so, they needed an EHR solution that enabled clinicians to more effectively analyze the data they needed to monitor and manage patients who were at a higher risk of CAUTI.

Execution

RCCH turned to MEDITECH’s Quality and Surveillance solution and CAUTI Prevention Toolkit to support them in the early detection and prevention of CAUTI. Quality and Surveillance alerted clinicians and care teams to their next appropriate actions, and helped ensure that all indwelling catheters were placed in compliance with CDC best practices embedded within the Toolkit.

Results

After implementing MEDITECH’s Quality and Surveillance solution and CAUTI Prevention Toolkit, momentum from the CAUTI surveillance initiative led to the following improvements at RCCH:

- 45% decrease in CAUTI from Q4 2017 to Q1 2018
- 35% reduction in indwelling catheter days.

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“We have a continuous focus on patient safety and preventing harm. I am very pleased with the attention toward appropriate use of urinary catheters and the diligence to prevent hospital-acquired infections, such as catheter-associated urinary tract infections (CAUTI). The MEDITECH Surveillance functionality enables nurses to leverage technology in patient safety efforts.”

Dana Obos
Chief Quality Officer,
VP Clinical Operations
RCCH HealthCare Partners
Patient Registries Help Kalispell Regional Advance Diabetes Management, Increase Cancer Screenings by 22 Percent

About
Located in northwestern Montana, Kalispell Regional Medical Center is a 288-bed, acute care hospital that provides a wide variety of healthcare services to the residents of Flathead Valley.

Challenge
As Kalispell transitioned to an alternative payment model, they needed to broaden their focus from the patients they saw regularly to the patients they saw sporadically. To identify these unengaged patients, they needed a convenient means to determine everyone for whom they’re responsible. Kalispell discovered they were relying solely on physician visits to meet all the care needs of their patients and turned to MEDITECH’s Patient Registries — a comprehensive population health tool — to help them identify, stratify, and engage their patient communities.

Execution
As Kalispell moved to the CPC+ reimbursement model, they determined that Patient Registries could support their shift from fee for service to value-based care. They designed their registry workflows so that all meaningful, documented patient data would flow directly to registries so that clinicians could verify whether they were meeting care protocols, helping them to be more proactive in fixing poor compliance rates.

Once the patient registries were established, they empowered Kalispell’s clinicians to examine entire groups of patients, determine who they were accountable for, and decide on the appropriate interventions. Using registries enabled Kalispell to:

• Increase colonoscopies by 22%
• Improve compliance rates for diabetic eye exams and wellness visits
• Have fewer patients leaving the ED without receiving timely follow-up from their PCP’s office.

Thanks to their success with the Wellness and Diabetes Registries, Kalispell is exploring a wide range of registry options to help manage organization-wide performance improvement efforts.

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“MEDITECH’s Patient Registries are a powerful tool for you to find out what’s broken in your institution. Rather than spending months tracking down information in reports, the registries help uncover what’s not easy to find.”

John Tollerson, DO
Family Practice
Kalispell Regional Medical Center
Waypoint Centre for Mental Health Care Improves Transitions with SBAR Tool

About

• Waypoint Centre For Mental Health Care is a comprehensive tertiary mental health care research and academic hospital that provides mental health services for adults and provincial high security forensic mental health services.

• Located in Penetanguishene, Ontario, the organization has 1,200 employees, 301 beds, and about 27,000 outpatients.

Challenge

In previous years, the Waypoint Centre for Mental Health Care struggled with care transitions. They relied on paper Kardex at shift changes — a slow process that could take up to 40+ minutes for each hand-off. This was extremely frustrating for staff and patients alike. Waypoint also experienced several incidents indicating a need for a more efficient transfer of care process and better staff education on risk factors.

Execution

Waypoint determined that an SBAR format would be the most effective workflow for overcoming their care transition challenges. Waypoint combined the ITCT (Information Transfer at Care Transitions), the Kardex, and chit sheet into an electronic SBAR intervention. By collaborating with partners that had already experienced success with MEDITECH — they could close gaps related to patient transitions.

Waypoint went LIVE with MEDITECH and SBAR using no paper during shift changes across 14 inpatient units, from day one. Staff was initially concerned about how long it would take to document online, but soon found the new electronic process took between 10-15 minutes, compared to the 40+ minutes for paper documentation. Other positive results from Waypoint’s successful implementation include:

• Significant reduction in the length of shift reports

• Improved patient satisfaction, since patients no longer have to wait for reports to be completed

• Improved clinician satisfaction.

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“Clinicians, clinical information and IT managers, and other staff agreed MEDITECH had the mental health functional tools, support, and experience required to meet our unique needs. The ability to integrate and support various ministry and healthcare reporting requirements were also factors in the final decision.”

Lorraine Smith
Vice President of Corporate Services
Waypoint Centre for Mental Health Care
Frederick Memorial Hospital Reduces Sepsis Mortality Rate by 65 Percent with MEDITECH

About

- Frederick Memorial Hospital (Frederick, MD) is the hub of Frederick Regional Health System and the only acute care hospital in the county.
- Located 50 miles from Baltimore, this nonprofit, 233-bed facility and its outpatient services account for 285,000 visits every year.
- FMH has been validated as a HIMSS EMRAM Stage 7 provider and in 2019 was recognized by CHIME as one of HealthCare’s Most Wired organizations.

Challenge

Frederick Memorial Hospital’s leading cause of death was sepsis, with mortality rates as high as 16 percent. An analysis determined that 97 percent of sepsis patients arrived at FMH via the hospital’s emergency department. The hospital did not have bundles or protocols in place, nor did they have a system to recognize borderline sepsis patients.

Execution

Recognizing the need for a comprehensive approach to sepsis care, FMH leadership designed a three-pronged strategy that consisted of:

1. Forming a multidisciplinary committee to establish best practices for sepsis screening, order set bundles, documentation, and chart review
2. Improving sepsis awareness by changing the organizational culture at a multidisciplinary level
3. Instituting a corporate goal of reducing sepsis mortality and surpassing the core measure at a minimum of 80 percent.

Results

A strong, collaborative, and multidisciplinary approach enabled FMH to decrease sepsis rates and improve core measure compliance, while changing the organization’s culture.

- SEP-1 core measure compliance rates rose from 32 percent to 80 percent, but have reached as high as 91 percent. (The national average is 51 percent.)
- The sepsis mortality rate decreased 65 percent from almost 16 percent down to 4.76 percent.

FMH has transformed itself from a below-average performer to a recognized leader in the fight against sepsis.

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The Clatterbridge Cancer Centre
NHS Foundation Trust Transforms Cancer Care

About

- Located in northwestern England, The Clatterbridge Cancer Centre (CCC) is one of the leading cancer centers in the UK and has transformed cancer care delivery in the region.
- CCC provides nonsurgical oncology services, including pioneering chemotherapy, radiotherapy, and proton beam treatments, to approximately 27,000 patients per year.
- CCC transitioned from paper-based medical records and limited e-Prescribing capabilities to MEDITECH’s 6.0 solution — a fully integrated electronic system.

Challenge

The facility previously used a hybrid system of paper medical records and limited electronic capabilities for notes and prescribing. Staff faced six main issues related to the hybrid approach, including cumbersome e-Prescribing, lack of clinical decision support, limited access to patient information, inconsistent documentation, prescription authorization delays, and regulatory compliance issues.

Execution

Leadership realized that CCC required a digital infrastructure and clinical decision support to meet the demands of delivering complex anti-cancer treatments. Once LIVE on a fully electronic system, oncology staff across 11 sites could access clinical information, place orders, and administer treatments more effectively. CCC followed MEDITECH’s implementation guidelines by creating a comprehensive program of staff engagement, education, and training, outlined in prototyped clinical stages — each of which required clinical sign-off. By enabling the medical staff to experience the LIVE system in advance, outside of the pressure of their busy clinics, CCC migrated from its legacy systems to MEDITECH’s EPR over a single weekend.

Results

CCC oncologists are now experiencing a more efficient process for managing patient records, placing orders, and documenting care, resulting in the following benefits:

- Immediate access to patients’ medical records & stronger clinical decision support for cancer therapies
- System response time issues have been eliminated
- 20% higher influx of immunotherapy volume accommodated without additional staff
- Reduced ordering process for those chemotherapy orders requiring multiple cycles from between 15 to 90 steps, down to just 8.

Clatterbridge’s experience demonstrates that integrating Oncology care into your EPR improves care team collaboration, leading to more efficient cancer care delivery. CCC continues to extract MEDITECH’s rich functionality to help clinicians make better and more timely decisions. Ongoing technology projects will further streamline workflows and reduce clinical administrative time.

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“Prescribing is much quicker, having access to one source for information is good, and being able to see nursing documentation is a positive. Also, we appreciate that referral documents are scanned in quite quickly now. We have confirmation of diagnosis before the letters are typed for a high proportion of patients, which, given the complexity of inclusion criteria for meds, helps us to ensure we’re complying.”

Helen Flint
Senior Pharmacist
Clatterbridge Cancer Centre
Ontario Shores Advances
Patient Engagement with MEDITECH

About
• Ontario Shores Centre for Mental Health Sciences is a 346-bed public teaching hospital in Whitby, Ontario, that provides a wide range of assessment and treatment services to those living with complex and serious mental illness.
• As the first HIMSS Davies Enterprise Award and HIMSS EMRAM Stage 7 recipient in Canada, Ontario Shores is recognized as one of the world’s leading advocates for the “recovery model” of mental health care, which is focused on restoring fuller function and quality of life to patients.

Challenge
Prior to their EHR implementation, Ontario Shores patients had limited access to their own care data. Their health information requests were processed manually by the organization’s health information management (HIM) department, which could take weeks. Communication with caregivers between appointments was limited, and medical record information was not easily shareable with providers outside of Ontario Shores’ network. Executives at Ontario Shores identified an opportunity to extend medical information access to patients, in support of maintaining care continuity and strengthening patient engagement.

Execution
During the implementation of MEDITECH’s patient portal, Ontario Shores focused on four primary patient engagement goals:
• Enhancing patient access to their care providers and their own care data
• Supporting the paradigm shift toward service-user-driven care
• Eliminating gaps in patient engagement and partnership between patients, families, and healthcare providers
• Evolving existing practices and culture from a provider-centric model to a patient-provider partnership.

Clinicians, patients, and other healthcare professionals at Ontario Shores were involved with the design, planning, and implementation of the portal from the start.

Results
After implementing the portal, Ontario Shores observed significant, measurable benefits for both patients and healthcare organizations, including:

• Improvement in 7 out of 8 patient mental health recovery domains, including self-empowerment, basic functioning, and overall well-being
• 67% greater likelihood that portal users attend appointments
• 30% lower likelihood that portal users request information
• 16% improvement in patient self-assessment scores.

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"The patient portal is a valuable tool that empowers patients to be active participants in their own care. Clinicians are able to partner with patients to further support their recovery goals and stay connected to their progress."

Sanaz Riahi
Senior Director, Professional Practice and Clinical Information
Ontario Shores Centre for Mental Health Sciences
Anderson Regional Cuts A/R Days by 50 Percent Using MEDITECH’s Revenue Cycle Solution

About

• Anderson Regional Health System is the most comprehensive health system in the East Mississippi/West Alabama area.
• The health system is ranked in the top 2% in the nation for patient safety and experience by Healthgrades, a leading independent healthcare ratings organization.

Challenge

During a transition in leadership, Anderson Regional analyzed their revenue cycle processes and identified areas for improvement. Key financial metrics showed that calculated A/R days were in excess of 95 days while there was also $7 million in credit balances across more than 7,000 patient accounts.

The hospital recognized that a lack of standard workflow processes was leading to inefficiencies in the revenue cycle department. Issues such as manual communication methods and over-reliance on paper needed to be corrected in order to revamp Anderson’s revenue cycle efforts.

Execution

An important component of Anderson’s success was their migration from MEDITECH’s MAGIC platform to Expanse. They were determined to maximize their use of all the tools their Revenue Cycle solution had to offer and ensure staff was adept at navigating the system.

Using the power of the Financial Status Desktop allowed the revenue cycle team to continuously monitor the organization’s financial health and make more informed decisions relative to overall performance. By using real-time financial data to actively monitor key performance indicators, Anderson quickly identified negative trends and became proactive in reversing them.

“Having the right tools, for the right people at the right time means we can clearly set our performance standards for each team. MEDITECH’s Revenue Cycle solution has made a huge difference for us in that regard.”

Kevin Adams, CRCR, CMRP
Revenue Cycle Director
Anderson Regional

Anderson Regional Health System is reaping the benefits of improved revenue processes, including better revenue and cash flow, process efficiencies, and increased productivity. Highlights include:

• Cut A/R days by 50%
• Reduced lost revenue by 90%
• Improved revenue by $14 million in one fiscal year
• Achieved these outcomes while in the midst of mandatory 18% support and 15% clinical staffing cuts.

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It’s in Their DNA - Avera Health
Drives Precision Medicine at the Point of Care

🔗 About

- Avera Health (Sioux Falls, SD) is one of the largest health systems in the Midwest, with more than 300 care locations in five states.
- In 2019, Avera Health was recognized by CHIME as a HealthCare’s Most Wired organization, earning the highest status of Level 10.
- This integrated healthcare system includes a state-of-the-art human molecular genetics laboratory, the Avera Institute for Human Genetics (AIHG).
- AIHG uses pharmacogenomics to analyze how the genetic makeup of an individual affects his/her response to drugs, helping clinicians efficiently identify the safest, most effective drugs for them.

🔍 Challenge

Medical staff across Avera’s hundreds of hospitals and clinics shared MEDITECH’s integrated EHR, but because AIHG’s processes were not automated, clinicians had to revert to paper orders for pharmacogenomic testing, which disrupted workflow.

Avera’s IT committee realized they needed to design the future-state workflow to leverage their EHR. The improved workflow would use discrete pharmacogenomics data to drive clinical decision support and guide clinicians to the most appropriate drug options for the patient.

🔍 Execution

The improvement project, which took place at Avera McKennan, was broken down into three phases: documentation, ordering, and alerting:

- Documentation: For patients who require comprehensive pain management, the AIHG pharmacists document their interpretation of the patient’s genetic profile and drug recommendations in a standardized note template.
- Ordering: Providers order pain genotyping tests using MEDITECH’s CPOE solution. Because pharmacogenomic results are now formatted as structured data, genetic lab results flow to the ordering providers’ desktops.
- Alerting: Clinical decision support rules created in MEDITECH’s CPOE solution flag clinicians based on the results of the patient’s pain genotyping panel. These alerts guide more appropriate medication prescribing.

By incorporating pharmacogenomics into clinical workflows for safer, more efficient pain control at Avera McKennan, Avera Health has realized numerous benefits to patients, clinicians, and the health system. Here are a few benefits they’ve experienced by improving their clinical processes:

- **Patients:** Minimized medication trial-and-error, with patients experiencing improved pain management as they transition to recovery.
- **Clinicians:** Increased physician satisfaction and productivity due to easier ordering of tests, efficient locating of results, and active clinical support that guides better decision making. A comprehensive “picture” of the patient is accessible system-wide in the EHR.
- **Health system:** New processes ensure optimal pain management and alleviate safety concerns related to ADEs.

As Avera Health implements MEDITECH’s Expanse EHR, they continue to build on their success with actionable pharmacogenomic data and clinical decision support, which are crucial to improving quality of care.

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Detecting the Undetected: MEDITECH’s Surveillance Identifies and Prevents Infections at Valley

About
- The Valley Hospital is a fully accredited, acute care, not-for-profit hospital in Ridgewood, New Jersey.
- Located just outside New York City, Valley has earned 13 Disease-Specific Certifications (also known as Gold Seals of Approval®) from The Joint Commission.
- In 2019 they were recognized by CHIME as one of HealthCare’s Most Wired organizations.

Challenge
Like most healthcare organizations, The Valley Hospital had always struggled with early identification of sepsis, both in the ED and on inpatient floors. Motivated by the Institute for Healthcare Improvement’s 100,000 Lives Campaign, Valley’s leadership assigned advanced practice nurses (APNs) and quality assessment staff to track specific conditions and evaluate patients.

When Valley moved forward with MEDITECH’s EHR, the hospital’s leadership team recognized the potential for a new electronic surveillance tool in helping clinicians with the early detection of sepsis and accepted the opportunity to be an early adopter.

Execution
Participating in agile development and proper implementation processes enabled Valley to collaborate with MEDITECH on a real-time monitoring system, which simultaneously analyzes clinical and demographic data from throughout the EHR. Using rule logic grounded in evidence-based medicine, the surveillance system detects subtle changes in a patient’s condition that care teams may miss, alerting clinicians and providing guidance for the timely initiation of sepsis care.

Results
MEDITECH’s Surveillance solution quickly earned the organization’s confidence for its power and versatility, and the hospital sees no limit in its potential. With 23 surveillance boards in use, Valley is yielding impressive results:

- 100% of HIM-coded septic patients were found by electronic surveillance in March 2016
- 93% of patients who qualified for sepsis surveillance board were coded with sepsis diagnosis by HIM
- 78% to 98% increased compliance in flu vaccine administration rates
- 30 minutes in estimated nursing time saved by eliminating manual counts of urinary catheters and central lines for CAUTI and CLABSI rates
- 93% VTE prophylaxis compliance rate, a dramatic improvement from the low 70’s.

Surveillance has emerged as the Valley IT department’s first choice for hospital-wide problem solving. Clinicians are confident that the solution is identifying conditions, providing relevant data, and expediting ordering to initiate treatment sooner.

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“Why wouldn’t you want to free staff from performing repetitive tasks or surveilling patient information when the EHR can accomplish those same functions faster and more easily?”

Chris Neumann
Project Specialist
Valley Health System
Avera McKennan’s Nurse Navigator Program Uses MEDITECH’s EHR to Steer ED to $475,000 Annual Cost Savings

About

- Avera McKennan Hospital & University Health Center, a HIMSS Analytics Stage 7 hospital and four-time designated Magnet facility, is a 545-bed tertiary hospital located in Sioux Falls, SD.
- The hospital is the flagship of Avera Health, a 35-hospital system spanning five states, including South Dakota, North Dakota, Iowa, Minnesota, and Nebraska.
- In 2019, Avera Health was recognized by CHIME as a HealthCare’s Most Wired organization, earning the highest status of Level 10.

Challenge

Nurses in Avera McKennan’s Emergency Department identified a segment of their patient population frequently using the ED for non-emergent situations. This is a problem faced by EDs across the United States, with potentially avoidable visits estimated to be over 50% or about 67 million visits. Avera nurses took this challenge head on by implementing a nurse-driven care manager program.

Execution

The ED nurse navigator program focuses on patients considered “super utilizers” by providing personalized care management extending beyond the ED. After working through the process on paper, they enlisted Avera’s IT team to automate the documentation in MEDITECH.

IT maximized MEDITECH’s integration, documentation, and clinical decision support tools to capture all the data electronically, and embed alerts within the registration and documentation processes to improve communication and continuity of care within the ED.

The ED nurse navigator program leverages the power of electronic data to make a real difference in patients’ lives. MEDITECH’s Expanse EHR provides the ED nurse navigator with a bird’s eye view of what’s happening with the program’s patient population so they can observe emerging trends.

Results of Avera’s ED nurse navigator include:

- 78% decline in ED visits by program participants
- $475,000 reduction in cost of care for program participants
- 13.7% decrease in overall non-emergent ED visits
- 68% patient follow-up compliance, which is well above the Magnet hospital compliance average of 25%-40%.

With the success of Avera McKennan’s ED nurse navigator program, Avera Health has begun implementing the program across their entire network. The initiative is easily replicated using tools already available within MEDITECH to automate a standardized nurse navigator toolkit. As the program expands, Avera will continue to use the data to further refine the program.

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Avera Health Achieves 45 Percent Mortality Rate Reduction With Sepsis Screening

About

- Avera Health is an integrated health system comprising 35 hospitals with more than 300 locations throughout South Dakota and four surrounding states.
- In 2019, Avera Health was recognized by CHIME as a HealthCare’s Most Wired organization, earning the highest status of Level 10.
- The organization serves a population of nearly 1 million, covering a geographical footprint of 72,000 square miles in 86 counties.
- The organization manages approximately 2.4 million visits per year.

Challenge

Supported by business and clinical intelligence data, Avera Health identified sepsis as the number one opportunity for care improvement and cost reduction across their system. Soon after, the organization defined a system-wide goal to reduce sepsis mortality by collaborating with multiple disciplines, providers, and facilities throughout the Avera system to implement a standardized sepsis toolkit in MEDITECH.

A key focus of the project was ensuring that the screening and treatment protocol could be used universally across the system, ensuring the Avera brand promise of providing consistent standardized care at all Avera hospitals.

Execution

To promote effective standards, Avera embedded the following elements into the nursing and physician workflow:

- Nurse-driven screening protocol to identify sepsis patients early
- Evidence-based physician order sets to provide immediate treatment
- A centralized EHR Sepsis panel, displaying sepsis-related data in flowsheet format
- Tools to monitor compliance and effectiveness.

By implementing these processes and raising sepsis awareness through their ‘Seeing Sepsis’ campaign, Avera Health improved their recognition and response time to sepsis cases, enabling immediate treatment and desirable outcomes.

With its nurse-driven sepsis screening assessments and physician order set bundles, Avera Health is using MEDITECH’s integrated Expanse EHR to save lives by quickly identifying patients at risk for sepsis and initiating immediate, evidence-based diagnostics and treatments. As a result, the organization has managed to significantly streamline workflows, reduce costs, and improve patient outcomes.

Avera’s new sepsis detection protocols have resulted in:

- 45% reduction in mortality rate due to sepsis screening
- $10 million cost savings based on a $5,080 decrease in cost per case
- Readmission rate reduction from 12.9% to 10.3% for sepsis patients and observed-to-expected (O/E) ratio reduction from .70 to just above .60 — exceeding top performers in the nation.

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“Rarely does a clinical tool touch every patient, but 100% of our patients are now screened for sepsis. We’ve seen a dramatic improvement in both mortality and morbidity related to sepsis care.”

Jennifer McKay, MD
Medical Information Officer
Avera Health
Stamford Hospital’s CAUTI Initiative Leads to 70 Percent Reduction in UTIs

About

• Stamford Health (Stamford, CT) is a 305-bed community teaching hospital, an affiliate of the New York-Presbyterian Healthcare System, and a major teaching affiliate of the Columbia University College of Physicians & Surgeons.
• In 2019 they were recognized by CHIME as one of HealthCare’s Most Wired organizations.

Challenge

According to the CDC, hospital-acquired CAUTI increases length of stay, mortality, and hospitalization costs, with the average per patient direct costs and attributable mortality at $750 per episode. Despite broad-based education, hand-hygiene efforts, and environmental cleaning initiatives, Stamford Hospital’s urinary catheter utilization rates and CAUTI had not fallen over a five-year period.

Execution

Leveraging the MEDITECH EHR’s documentation, CPOE, clinical decision support, and reporting tools, Stamford enhanced communication between nurses and physicians on the need for catheters and made it easier for their clinicians to follow best practices. The organization developed a set of interventions to minimize the risk of catheter-associated urinary tract infections, including the following steps initiated in the EHR:

• The Infection Prevention team developed guidelines for physicians to document catheter insertion criteria when ordering catheters. They also developed electronic order sets with Foley time limits
• They linked the order for “Foley Maintenance Protocol”, which includes the nursing checklist for catheter removal to the physician’s catheter insertion order
• Nurses regularly review the reason for a catheter and are required on every shift to document the patient’s voiding method. A nurse-driven protocol allows nurses to remove the catheter when no longer needed.

The results of Stamford Hospital’s CAUTI Reduction Program have been impressive. They successfully sustained reductions in hospital-wide catheter-associated urinary tract infections and Foley catheter use, as demonstrated by the data below:

• Reduced hospital-wide urinary catheter use by 50% and urinary tract infections by over 70%
• Saved an estimated $100,000 and six patient lives over a three-year period
• Lowered the incidence of hospital-wide CAUTI numbers from 14 per quarter to 2 per quarter and hospital-wide CAUTI rates have trended down from 4.3 infections per 1,000 catheter-days to 1.4 infections per 1,000 catheter-days.

An important aspect of any quality initiative is sustainability and Stamford’s results over several years demonstrate the effectiveness of the CAUTI program.

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**Rotherham** Improves A&E Integration and Interoperability with MEDITECH’s EPR

**About**

- Located in South Yorkshire, England, The Rotherham NHS Foundation Trust provides a wide range of health services to the Rotherham community and beyond.
- The trust, which sees approximately 100,000 A&E patients per year, opened its Urgent and Emergency Care Centre in July 2017.

**Challenge**

For The Rotherham NHS Foundation Trust, following the NHS Five Year Forward View and achieving the nationwide goal of greater patient engagement came in the form of opening its new Urgent and Emergency Care Centre. But Rotherham overcame a series of challenges to become successful:

- Construction of the new emergency care center took 18 months. During that time, clinical leaders and IT were forced to design workflows for both of their temporary facilities, which were not suited for A&E, and their new building, which was still under construction.
- Although many of Rotherham’s systems did not “talk” with one another, their GP system in particular struggled with interoperability due to a lack of integration between hospital, urgent care, and A&E systems.
- Working in-house with clinicians from various disciplines and with different levels of software experience resulted in opposing viewpoints and initial resistance to change.

**Execution**

To help drive this project, the trust selected MEDITECH’s Emergency Department Management solution for its inherent integration with their MEDITECH EPR and its proven track record for interoperability. Rotherham had full backing from informatics, as their IT team already knew how to run MEDITECH, putting them one step ahead to support implementation in the A&E.

**Results**

After implementing MEDITECH, Rotherham’s patients gained one source of truth for hospital and A&E care. Rotherham experienced automation benefits for both the trust and the A&E:

- **Through interoperability with the NHS Personal Demographics Service (PDS),** Rotherham was the first trust to link their records to the PDS, increasing NHS identification number verification from 85 percent to 99 percent and penalty reductions for missing or unmatched numbers alone, resulting in a savings of £153,300.
- **When patients are admitted from the A&E,** hospital clinicians can review A&E visit details, resulting in smoother care transitions. The trust improved revenue by £14 million in one fiscal year.
- **Rotherham’s A&E now has access to integrated lab and radiology reports.** They can send electronic requests directly to hospital departments for processing and no longer have to wait for faxed or paper results. This provides for quicker insights, shorter wait times, and improved internal communications.

> “It is so valuable to have A&E information in one patient record. We never had that before. Things are better with MEDITECH and we’ve gained a lot. It’s good for patients and good for care.”

Laura Mumby
Head of EPR
The Rotherham NHS Foundation Trust

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St. Bernards Medical Center (Jonesboro, AR) is a 353-bed referral hospital offering health services across key areas, including heart care, cancer treatment, and women’s and children’s services.

- A healthcare destination for the community, St. Bernards provides healing through medical services and invests heavily in innovative treatment methods.

St. Bernards created a HIRO (Highly Reliable Organizational Plan) package that would facilitate the organization of policies, educational materials, performance reports, and MEDITECH documentation related to central lines. When developing the HIRO package, St. Bernards built specific sections of it into MEDITECH’s EHR for performance tracking. Their primary objective was to create a reliable process for decreasing central line infections, with one source of truth for all information.

St. Bernards’ initial evaluations showed their CLABSI rate was 1.551 from 2016 – 2017, well above the national industry standard of 1.0. The organization’s previous campaigns to centralize CLABSI improvement efforts were sporadic and noninclusive. They saw the need to bundle protocols to fit organizational needs and specific goals.

Following a consistent organizational philosophy empowered St. Bernards to create a highly reliable process for decreasing central line infections. The organization’s most recent SIR, as of April 2020, is .241.

Thanks to their efforts, St. Bernards accomplished their goal of lowering the SIR below the 1.0 national standard. Here is a full timeline of St. Bernards’ SIR improvements:

- FY Oct. 2017 – 2018 SIR of 1.03
- HIRO launched in Nov. 2018
- FY Oct. 2018 – 2019 SIR of 0.257

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“Examining this process closely helped us to more clearly connect daily work and documentation to tangible outcomes. The EHR became a tool we optimized to hardwire compliance and make the ‘right thing to do’ more prominent and reportable.”

Kasey Holder, MD
Vice President of Medical Affairs
St. Bernards Healthcare
NMC Health Decreases Antibiotic Use Through MEDITECH’s Antimicrobial Stewardship Toolkit

About

• Newton Medical Center, now NMC Health (Newton, KS), is a 103-bed community hospital that includes nine clinics and home health.

Challenge

According to the CDC, at least 2.8 million U.S. adults are infected with antibiotic-resistant bacteria each year. NMC Health prioritized antimicrobial stewardship, but they had issues with convoluted processes, and too much antibiotic use led to increased costs. In NMC Health’s previous workflow, pharmacists accessed two separate vendor systems to monitor and review medication orders. Multiple clicks were required to view results, and documentation was available to pharmacists but inaccessible to hospitalists. This became an inefficient process and often required extensive manual cleanup.

Execution

NMC Health set goals to reduce the trend of antimicrobial use and identify antibiotic costs per patient day. They implemented MEDITECH’s evidence-based Antimicrobial Stewardship Toolkit, using the toolkit’s advanced clinical decision support and guidance to align best practice workflows in Expanse. This improved collaboration between pharmacists and physicians, as the workflows centralized information and made it easier to document and review data.

Results

NMC Health is employing Antimicrobial Use and Resistance Reporting and Antibiotic Cost Reporting to analyze key metrics and positive outcomes since their toolkit implementation. These pre-go-LIVE vs. post go-LIVE improvements include:

• 4 percent decrease in total administration days, representing a downward trend in antibiotic use (days of therapy).

• 30 percent decrease in cost per patient (per day) and total costs, gathered using MEDITECH’s Business and Clinical Analytics (BCA) solution.

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“It was quite a change in our process and I was a little worried that I might have to push the staff to use the system. But because it streamlined our workflow significantly, there was immediate adoption by the staff.”

Allan Graber
Director of Pharmacy
NMC Health
Sunderland Royal Hospital Trust Achieves Quality Outcomes and Creates Organisation-wide Efficiencies

About

- City Hospitals Sunderland NHS Foundation Trust, now South Tyneside and Sunderland NHS Foundation Trust, serves a population of 430,000 in Northeast England.
- The trust is an NHS England Global Digital Exemplar (GDE), distinguished for delivering exceptional and efficient care through the world-class use of digital technology and information flows, both within and beyond their organisation.
- Sunderland Royal Hospital, the trust’s 970-bed acute care facility, was recently awarded Stage 7 designation from the analytics unit of HIMSS Europe.

Challenge

Since 2019, the National Health Service (NHS) has focused on redesigning the way patient care is delivered, as outlined in its Long Term Plan. Among its plan to restructure and create a more sustainable system, the NHS aims to advance digital technology to improve quality, safety, patient experience, and outcomes.

As a leading GDE, Sunderland sought to further improve care quality and safety, as well as generate efficiencies and cost savings. The GDE is also creating examples for other NHS trusts to follow.

Execution

By leveraging the information within their MEDITECH EPR, the trust has exceeded NHS expectations specific to early intervention, data accuracy, and closed loop medication management to help reduce medication errors. Additionally, the trust is realising an extensive range of time-saving and cash-releasing benefits associated with its GDE Programme, and its target of being “paper-free at the point of care.” Real-time documentation greatly reduces incomplete information and transcription errors, resulting in greater accuracy of information.

Using MEDITECH’s integrated EPR, the trust was able to:

- Surpass a 99% sepsis screening rate through real-time patient trackers and clinical decision support
- Reduce medication error rate to 0.5% annually through integrated e-Prescribing, pharmacy, and medication administration
- Exceed their 80% Commissioning for Quality and Innovation (CQUIN) target related to e-Referral Service (eRS) implementation and slots published, reaching 97%
- Achieve 100% accuracy of observational data by eliminating transcription errors
- Reduce their Did Not Attend rate by 1.1 points from 11.3% to 10.2
- 100% of all pain scores now include documented observations (up from just 20%).
**Princeton Community Hospital** Improves Response Time and Physician Efficiency with MEDITECH Expanse and Teknicor

**About**

Princeton Community Hospital (Princeton, WV) is a fully-accredited 203-bed acute care facility that serves 10 counties in southern West Virginia and southwest Virginia. The community-owned, non-profit hospital was established in 1970 and offers high quality, cost-effective health and wellness services to their surrounding communities.

**Challenge**

Princeton’s previous EHR approach was disjointed with too many disparate systems, slow response times, and poor usability. With ambitions of extending their reach by acquiring new sites, Princeton knew they could not continue forward in their current state. They needed a more dependable solution to ensure their EHR remained secure and available 24/7, and that their clinicians could access patient records quickly, efficiently, and collaboratively across the continuum.

**Execution**

Princeton brought in Teknicor — a leading provider of data center infrastructure, protection, and cloud solutions — to provide them with the scalable, high performance solution they needed to support Expanse, along with the flexibility to expand to new facilities in the future.

Addressing hardware infrastructure was only half of the equation. Princeton’s decision to move to Expanse came after researching other EHR vendors, and realizing that the mobility, user-centered workflow, and integration of Expanse was what they needed to advance patient care across all of their facilities. While they were already familiar with MEDITECH in the hospital setting, Expanse empowered them to replace multiple disparate practice solutions and develop one patient record across all care settings.

**Results**

By centralizing their strategy with MEDITECH Expanse and switching to Teknicor for their hardware infrastructure, Princeton realized faster system performance, greater accessibility to shared records, and increased mobility. Benefits included:

- Greater reliability and response times for technical issues such as backups and disaster recovery.
- The scalability to extend services to other physician offices and service lines.
- Improved physician efficiency and satisfaction through their mobile approach and ability to personalize the solution to physician needs.
- More meaningful patient engagement by using shared records across their care settings and reviewing these records with patients in the exam room.

“**You can customize the system so well, just like you do your smartphone. You can make it yours.”**

Nancy Lohuis, MD
Physician Champion,
Princeton Community Hospital

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**Major Health Partners** uses **MEDITECH Expanse** Hypertension Patient Registries in Population Health Initiative

**About**

Located in Shelbyville, IN, Major Health Partners is a leading healthcare provider serving communities across Southeast Indiana. Recognized by the National Rural Health Association as a 2020 Top 20 Rural Hospital and named to Becker’s Hospital Review’s list of 100 Great Community Hospitals three years in a row, MHP has positioned itself as a leader in healthcare informatics and patient satisfaction.

**Challenge**

When Major Health Partners formed its Primary Care Council in late 2019, the organization assembled a multidisciplinary team to review chronic conditions. The committee envisioned creating a program that focused on tracking population health, but they lacked the means to aggregate panels of patients with the same disease.

**Execution**

Upon implementing MEDITECH Expanse, MHP recognized that the availability of ambulatory registries provided a means to aggregate and stratify lists. By setting up patient registries, MHP could effectively identify the size and scope of patients with the same disease and prioritize which patient groups they want to target.

The council identified the community’s most common chronic health conditions it would track through the registry program and began by implementing a hypertension registry in MEDITECH Expanse. Using a tiered tracking system for the registry, MHP first targeted patients with a systolic blood pressure reading of ≥160, extending in subsequent phases to patients with readings of 150–160 and 140–150.

After a year in the making, the hypertension program showed measurable results; blood pressure readings began to trend downward within a few weeks of implementation. MHP has routinely seen significant percentage drops for patients beginning the month with systolic BP above 160, and finishing the month below that number. In May 2020, 57 percent of patients monitored improved to below the under 160 threshold, and throughout 2020 monthly reductions averaged approximately 30 percent. The numbers are expected to rise and settle over the next several months as patients return to MHP, now that COVID-19 concerns have begun to ease.

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"I need to know where I'm at with all the quality measures to serve my patients best. Registries help us do that."

Emily Andaya, MD
Major Health Partners
Emanate Health advances COVID-19 contact tracing with MEDITECH Professional Services

About

- Emanate Health includes four facilities: Emanate Health Queen of the Valley Hospital in West Covina, Emanate Health Inter-Community Hospital in Covina, Foothill Presbyterian Hospital in Glendora, and Emanate Health Home Care and Hospice in West Covina, as well as a network of more than 16 primary and specialty care locations.
- It has grown to become the largest nonprofit health care provider in California’s San Gabriel Valley over the last 100 years it has been serving its community in Covina, CA.
- More than 1 million people receive care within this 625-bed network.

Challenge

During the pandemic, preventing the spread of COVID-19 was among the most significant challenges facing healthcare providers. One of the keys to slowing down transmission was effective contact tracing to identify people who may have been exposed to an infected person. At the height of the pandemic, timing was crucial for implementing a reliable and efficient system to conduct contact tracing among staff and patients to minimize the exposure window while identifying anyone at risk after a potential exposure to COVID-19.

Execution

Emanate Health collaborated with MEDITECH Professional Services to quickly develop contact tracing dashboards in their MEDITECH Expanse EHR. Their initial goal was to identify patients and staff at high risk for COVID-19 exposure as a result of an inpatient testing positive during their hospital stay. Achieving this goal required staff to clearly understand the exposure window, identify at-risk patients and hospital staff, and prioritize COVID-19 cases determined to have high-risk exposure events. Analyzing patient location history while integrating data from other vendor sources helped staff identify roommates who may have been exposed, employees who may be at high risk for exposure, and patients who are also employees.

About Emanate Health

Emanate Health and MEDITECH Professional Services leveraged Business and Clinical Analytics dashboards within Expanse — integrating data from other vendor sources — to customize an automated contact tracing program. Contact tracing dashboards enabled staff to:

- Identify high-risk exposure events based on the exposure window
- Accurately prioritize COVID-19 cases identified as coming from high-risk exposure events
- Identify at-risk patients and staff to minimize the spread.

Emanate Health plans to incorporate BCA dashboards into daily operational use by Infection Control and Employee Health to perform similar contact tracing for other infectious diseases such as C. difficile and MRSA.

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“We can identify not just the source of COVID-19 infection — who did this patient/staff member likely get the virus from — but also who did the patient/staff member potentially expose during their infectious period. I am not aware of any system in the market that can accomplish what we just did.”

Loucine Kasparian
Corporate Director, Infection Control
Emanate Health
Firelands Regional Health System (Sandusky, OH) aims to stay ahead of the COVID-19 surge using analytics to identify coronavirus cases, trends, and resources. The 405-bed medical center developed an interactive reporting dashboard specifically for COVID-19 patients, using MEDITECH’s Business and Clinical Analytics (BCA).

### Tracking in real time with the COVID-19 Reporting Dashboard

Moving COVID-19 data from spreadsheets into a dynamic BCA reporting dashboard enabled Firelands to meet the organization’s needs: one version drills down to patient-level detail for infection control staff, while the other contains high-level data for executives. Senior administration and Infection Control monitor the dashboard and share situation reports with medical staff and managers, the CDC, and other reporting bodies.

“Our BCA dashboard has quickly become our go-to resource for the most updated information on our COVID-19 status and response,” said Denao Ruttino, CIO/VP of Operations. “We are using this tool to monitor the state of the facility in real time, such as how many patients are coming through the ED and where bottlenecks are occurring.”

Using their COVID-19 dashboard, which updates hourly, Firelands is able to track surge capacity, case locations, bed occupancy and capacity, symptoms, lab results, testing by location, mortality rate, and patients discharged with COVID-19.

### Coordinating responses through a central command center

Firelands’ remote workers, medical staff, and community physicians conduct socially distanced meetings and phone calls every day to go over the dashboard to see where things are trending.

“We’ve been able to react to situations as we can see them in near-real-time. Similarly, we’ve been able to identify test turnaround times and compare those turnaround times by outsourced lab to see where we are getting the fastest results,” states Ruttino.

The dashboard is also aiding in executing patient treatment plans, using special indicators to flag patients with COVID-19 symptoms. Visualization graphs of lab orders and test results are interactive, providing insights that help Firelands to improve their turnaround times.

By knowing where they stand at all times, and predicting what’s around the corner, Firelands is able to be proactive in their planning to ensure they have the appropriate resources in place.

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**Firelands at a glance...**

**Firelands Regional Health System**, a not-for-profit healthcare facility and the only full-service medical center in Erie County, serves the northern Ohio counties of Erie, Ottawa, Sandusky and Huron.

**About Firelands:**
- Provides care to a regional service area of 300,000 residents.
- Services include cancer care, open heart surgery, behavioral health services, physician practices and more.
- Received the Mission: Lifeline® STEMI Receiving Center Silver Recognition Award by the American Heart Association on healthcare — receiving their “Gold Seal of Quality.”

“I am very proud of the Firelands team as they’ve done tremendous work. Strong collaboration between Informatics, IS, Nursing, Infection Control, and others enables us to execute on an evolving vision. We are able to maintain situational awareness in a straight-forward manner.”

**Denao Ruttino**
CIO/VP of Operations
Firelands Regional Health System
Coffeyville Regional Medical Center (Coffeyville, KS) experienced dramatic results when they went LIVE as an early adopter of MEDITECH’s Depression Screening and Suicide Prevention Toolkit.

“In the first month using the toolkit, we identified five patients at risk of suicide whom we normally may not have detected, and were able to get them the help they needed,” said IT Consultant Al Monteiro.

### Screening every patient

Although the organization has always been diligent about screening patients for suicide risk, clinicians were often unsure of how to proceed with screening every patient for depression; workflow and processes can vary depending on patients’ needs, and aren’t always clear-cut.

“Since we went LIVE with the toolkit, no one has had to ask me, ‘What do I do next?’,” said IT Analyst Amber Beaumont, RN. “Clinical decision support guides clinicians through the process, and makes sure clinicians ask the required questions. It also tells them how to move forward, depending on the score.”

CRMC worked alongside the MEDITECH Toolkit team to build workflows that were self-explanatory to end users. The toolkit includes the Patient Health Questionnaire – 9 and the Columbia – Suicide Severity Rating Scale. Some surgeons initially resisted screening patients who visited the office for follow-up procedures, such as suture removal. However, shortly after going LIVE with the toolkit, a surgeon identified a patient at risk for suicide during a routine screening, and got the patient the help they needed.

“It’s a strong example of why widespread screening is important,” said Monteiro. “We shared this story in team meetings to drive adoption and show the toolkit’s effectiveness to management.”

### Using patient registries for follow-up

Widespread screening has enabled CRMC to improve their Merit-based Incentive Payment System score for the CMS2 measure; in eight months, the organization’s performance has increased from 20 percent to 67 percent attestation. Patients who are subsequently diagnosed with depression following these screenings all flow to patient registries, which allow for CRMC to follow up with select groups of patients to ensure that treatment continues after they leave the clinic or hospital.

With the right interventions in place, staff are empowered to make smart and quick decisions. And CRMC is fully confident in their system, knowing that the toolkit will guide caregivers to take appropriate action and patients will get the care they need.
When King’s Daughters Medical Center (KDMC) staff describe the hospital and its community of Brookhaven, “family” is the word that comes up most often. Neighbors care for neighbors in this small, regional hospital, whose mission — to provide quality health and wellness in a Christian environment — resonates with every employee.

“Here at KDMC, it’s all about taking good care of people and letting them know that you care about them,” said CEO Alvin Hoover.

So when hospital leadership determined that patients were spending about 200 minutes in the ED, they knew they needed to act, and moved to get the right talent and tools in place to improve the patient experience. Within the span of a year, the ED shaved an hour off door-to-discharge times.

A new direction

In 2016, KDMC replaced their standalone ED solution with MEDITECH’s integrated EHR, providing clinicians with a single patient record across inpatient and ED settings. But it was their update to MEDITECH's web-based Expanse EHR in July 2018 that helped turn things around. This update coincided with the appointment of a new ED director, Stephen Brown, DO, who set out to shift the ED’s culture to mobile, tablet-based workflows. Dr. Brown realigned ED staffing to help drive change: three new doctors, eager to embrace the latest technologies, worked the majority of shifts.

Standard templates and canned text save time by significantly reducing screen taps. Reports that used to take 15 minutes now take two to three.

Mobility also supports the hospital’s mission of improving the quality of care in their community. Now, physicians can engage with their patients the same way they do at the local hardware store — face-to-face.

“Mobility also supports the hospital’s mission of improving the quality of care in their community. Now, physicians can engage with their patients the same way they do at the local hardware store — face-to-face.”

Integration with the acute care setting also means admitting patients from the ED is seamless.

“I'm getting great compliments from our patients,” noted CIO Carl Smith. “It takes them less time in the emergency department or upstairs to get their healthcare, and they like that.”

The impact on patient care

- ED door-to-discharge time dropped 1 hour, from 210 minutes to 151 minutes (39%).
- ED door-to-doc time dropped from 38 minutes to 16 minutes (137%).
- Visits beyond 6 hours plummeted from 175 to 50 (250%).
- FTEs didn’t increase, despite a 15% rise in patient volumes.

Benefits felt by physician and patients

Expanse’s mobility makes it easier for KDMC physicians to enter orders and notes, schedule follow-ups, and view results at the point of care.
In Rural Texas, ‘Bridge to Health’ Mobile Clinic Uses MEDITECH’s EHR to Deliver Better Care

Even though Palo Pinto General Hospital (Mineral Wells, TX) serves a rural community, their physicians and nurses see the same types of patients as clinicians in urban settings, said Maria Cantu, an NP at the hospital’s urgent care center.

“We see everything. Chronic conditions are essentially the norm in patient care all over this country, including here,” said Cantu.

The difference between Palo Pinto County and more populated areas is the distance to care facilities. For patients who don’t own a car, getting to follow-up appointments can be a challenge.

Reaching out to this underserved population is such an integral part of the PPGH mission that their clinic network includes Bridge to Health, a self-contained and fully equipped mobile clinic.

All six clinics, including Bridge to Health, implemented MEDITECH’s Expanse Ambulatory solution in 2017. Fully integrated with the hospital’s MEDITECH EHR, the solution makes it possible for the entire organization to share a single, comprehensive record for each patient, improving communication and care continuity.

Engaging the community

As a DSHS Designated Rural Health Clinic, Bridge to Health offers services some primary care physicians don’t, such as the Texas Healthy Steps physical required for all children who receive Medicaid.

“The mobile clinic has helped us adapt to the demand for healthcare in this area,” said George Thomas, MD, the medical director for the clinic network. “It’s a novel idea for a small-town hospital to do this. So what this mobile clinic does is, throughout the week, it goes from various locations, from high schools to smaller towns, like Graford, and basically provides care to the community that can’t make it to our central location.”

Bridge to Health visits local schools regularly, providing walk-in care and other services to students and faculty, such as DOT physicals for bus drivers. The schools are also an ideal location for reaching patients who don’t have access to reliable transportation.

“A lot of our patients actually walk to us, which is one of the reasons why we partnered with the schools, because our schools are in our neighborhoods. We wanted to be seen there,” said Tonya Crnkovic, the clinic supervisor.

If someone has an initial appointment in the urgent care clinic and follows up in the mobile clinic, staff have access to all of the same records, which has created a sense of cohesion beyond patient care. “I feel like with this system we’re finally actually part of the clinic network,” said Crnkovic, “because it is so easy to access the other clinic records.”

In addition to schools, Bridge to Health makes weekly stops at a supermarket and a Chamber of Commerce, and even makes appearances at special functions.

“In rural Texas, the BBMCLH [Bridge to Health Mobile Clinic Health] is a key part of our community outreach,” said Tonya Crnkovic, the clinic supervisor. “It allows us to reach patients who may not have access to reliable transportation.”

“Since it gets a lot of publicity wherever it goes, we take the mobile clinic to health fairs and other health-related events,” said Mary Howell, the PPGH clinic director. “It’s a very friendly entity.”
CalvertHealth Makes Major Gains in Battling the Opioid Epidemic

Results include a 94 percent reduction in Dilaudid® prescriptions and a 46 percent decrease in other opioids

The opioid epidemic hit Calvert County, MD, hard. By 2015, CalvertHealth Medical Center (Prince Frederick, MD) was rated the top prescriber for the highest amount of morphine milligram equivalents in the area — a watershed moment for the organization. CalvertHealth recognized its obligation to attack the crisis raging in its community.

“We heard the very personal experiences of community members, including those right here in our hospital, whose families were impacted by substance abuse disorder. We saw it as a call to action to move forward and make a real change to prevent this epidemic from spreading any further,” said CalvertHealth CIO Phil Campbell.

A plan of attack

CalvertHealth responded with a multi-pronged initiative to engage all stakeholders. The organization created an opioid stewardship task force and petitioned outside entities to participate. Achieving buy-in from community physicians, pharmacists, dentists, and local support programs was crucial to fostering true stewardship. Outreach partners witnessed CalvertHealth’s leadership commitment to combating the epidemic and adopted the task force framework.

Education efforts furthered area support. For providers, CalvertHealth produced brochures outlining new hospital policies. For patients and families, the hospital created easy-to-read materials explaining what opioids do, their role in pain management, and the availability of alternative therapies.

Leveraging technology

By becoming a member of the Chesapeake Regional Information System for our Patients (CRISP) program, CalvertHealth is able to exchange data with hospitals and individual providers in Maryland and DC, alerting physicians to patient red flags, such as “doctor shopping” for opioid prescriptions. A single sign-on button available in MEDITECH’s EHR streamlines access to CRISP, enabling physicians to track prescription information outside of CalvertHealth.

The hospital also incorporated decision support within MEDITECH that prompts them to search the CRISP database before prescribing and sets reminders of appropriate CDC recommended dosing guidelines. Standard order sets within MEDITECH were also updated to align with these guidelines.

In recognition of the hospital’s successful opioid stewardship program, CalvertHealth was awarded the Health Quarterly Innovator of the Year award in 2017. Reflecting on the program’s achievements, Director of Pharmacy Kara Harrer remarked, “Seeing our success in the ED with Dilaudid and staff education, our community providers were very impressed. Even small changes can be enough to touch one family, or save a life.”
Valley Presbyterian Hospital Promotes Interoperability through CommonWell

As one of the largest acute care facilities in the San Fernando Valley, Valley Presbyterian Hospital (VPH) serves a diverse community that includes disadvantaged families and other vulnerable patient populations. VPH does not operate their own clinic, but rather partners with many federally qualified health clinics (FQHCs) in the region, leaving clinicians to depend on interoperability for a more comprehensive view of their patients’ journeys.

To support this need, VPH went LIVE with CommonWell Services and its connection to the Carequality Framework in the summer of 2019. Hospital leadership found that connecting to CommonWell Health Alliance® was the most efficient solution to improve their quality of care and acquire points through the Promoting Interoperability Program, which requires healthcare organizations to either connect with other providers through a certified HIE or rely on direct messages. The connection enables VPH, using their MEDITECH EHR, to exchange information with local hospitals and clinics — each of which maintains its own EHR. In addition, this expands VPH’s interoperability beyond the capabilities it achieves through its participation in the Los Angeles Network for Enhanced Services (LANES), the county’s leading HIE.

“Out of all our interoperability options, CommonWell comes closest to what ONC and CMS envisioned, and requires the least development effort,” says Jeff Allport, CIO/VP at VPH. “It has the potential to make healthcare information exchange more common and straightforward, by enabling us to reduce our integration technology footprint.”

VPH can now limit point-to-point interfaces, which often require adjustments to individual components and can be labor intensive to maintain. VPH staff use CommonWell’s Record Locator Service (RLS) to search automatically for patient matches and specify where the patient has received care. They can then accept patient summaries from practices not associated with the hospital. The RLS is a sustainable approach, limiting direct messages to only the care organizations that do not use CommonWell or Carequality. In addition, clinicians can quickly and easily identify which facilities need access to their patients’ information.

With the CommonWell/Carequality connection, VPH registration staff and providers also have access to over 40,000 providers nationwide — who can acknowledge patients during enrollment and check-in to the ED. VPH’s ED averages more than a 75 percent capture rate when listing the previous day’s missed patients. Some of these missed patients may reflect the area’s homeless population, since it is still difficult to capture their information.

Allport agrees that VPN’s interoperability has significantly helped clinicians to provide better care, through easier access to patient records. “I’m thrilled the discussion has transformed from focusing on how to get the information, to how to present and manage the information we’re getting,” he says.
Golden Valley Memorial Healthcare
Improves RVU Transparency with MEDITECH’s Professional Services

The end result is a new dashboard that saves the Health Information Management staff approximately 140 hours per month.

For physicians compensated using a productivity formula based on relative value units (RVUs), a lack of transparency between them and administrators can be frustrating.

Golden Valley Memorial Healthcare employs a dedicated HIM team to ensure RVUs are accurate. However, unique contracts with physician groups, combined with inefficient processes for tracking, validating, and sharing RVU data with physicians, led to 150 hours of manual validation — and burnout of their HIM staff.

“You can’t miss payroll,” explained Tara Dull, HIM director. “Brooke (our accountant) and I used to work fast and furious to process professional charges. We were sometimes up until midnight. It was not sustainable.”

Building a new dashboard
GVMH was already using MEDITECH’s Business and Clinical Analytics solution to automate reporting in other areas. However, because their own staff were tied up with their Expanse migration, they turned to MEDITECH’s new Professional Services division.

MEDITECH assigned Jonathan Bashford, a SQL data engineer, to walk through GVMH’s workflow, identify their needs, and design a new dashboard. Dull and Bashford talked multiple times per week, zeroing in on services that had potential for missed revenue and charges.

Getting time back
GVMH’s new dashboard reduced the time needed to process RVUs from 150 hours down to less than eight. Staff can now determine which provider RVUs were applied to, incorporate edits, and even identify incomplete records without having to look elsewhere.

“The RVU dashboard paid immediate dividends in hours saved,” said Dull. “Our CFO loves that we are available for other projects that she previously didn’t have hours budgeted for.”

The HIM staff aren’t the only ones benefiting. Physicians used to scrutinize their RVUs, contacting the HIM Department to inquire about specific missed charges. Now, calls have dropped substantially, with some months requiring no follow-up at all.

Physicians are sent RVU reports monthly. A facesheet outlines charges produced by month under a provider’s name — including total quantity per CPT code, work RVU value, and what RVUs were charged. Detailed reports are given upon request, and providers can opt to review dashboards themselves.

“We’ve gotten great feedback from providers,” said Dull. “They like the additional detail we can pull out of BCA, and it’s created a lot of awareness across the organization.”

GVMH is now looking to MEDITECH’s Professional Services for help with implementing provider scorecards and Joint Commission dashboards.
Newton Medical Center Uncovers COVID-19 Insights with MEDITECH’s BCA Solution

When COVID-19 struck, leadership at Newton Medical Center knew it was imperative that staff have timely access to the data they need to make the best, most informed decisions, whether related to bed occupancy, testing, or PPE. To do so, they turned to MEDITECH’s Business and Clinical Analytics (BCA) solution.

Dashboards in BCA provide staff with a single source of truth for critical information, while also eliminating time-consuming manual data collection. By leveraging BCA and working alongside MEDITECH’s Professional Services, Newton Medical Center created COVID-19 dashboards to uncover insights needed to care for their patients during the pandemic.

“We used MEDITECH’s Professional Services for a project in the past and they were very responsive and great to work with,” said Kelly Lippold, director of Clinical Informatics. “We wanted to track patients in-house who had been tested and run occupancy stats from certain locations, but our Professional Services analyst brought more ideas to the table and expanded what we would be able to look at.”

Professional Services assisted the hospital’s Incident Command team with evaluating, designing, and testing BCA dashboards, and creating reports to achieve their organizational goals. Newton Medical Center’s daily operational huddles are conducted based on data from three key dashboards:

**Snapshot:**
Provides a real-time view of in-house patients, what locations they’re in, their testing status, and the number of patients on ventilators. Management also uses this dashboard to filter out key areas of concern, such as monitoring the hospital’s occupancy rate to prepare for potential step-down overflow units. A “Test Pending” special indicator monitors patients across care settings; if patients are tested and diagnosed in an outpatient setting and later return to the inpatient setting with more serious symptoms, the indicator is still present.

**Lab tests:**
Staff can monitor all lab tests by date range and zip code (for possible disease clusters). They can also track the volume of testing to prevent overtesting if supplies are short. Turnaround times for tests sent to state and reference labs are also tracked so the hospital can follow up on any delays.

**Supply tracking:**
Pulls supply reports into BCA through integration with MEDITECH’s Materials Management and uses this data to monitor items in high demand. The Materials Management director reviews the average quantity used by day to determine the item’s “burn rate.” The result is compared to trends over time to calculate the “days left on hand” for that item, based on CDC recommendations, which is submitted to the state to justify supply purchases.

“Capturing supplies through BCA has simplified the life of our Materials Management director. She can focus on what we need versus spending time figuring out what we already have,” said Lippold.

**Newton Medical Center at a glance...**

Newton Medical Center (Newton, KS) is a 103-bed, not-for-profit facility that provides healthcare services to the residents of Harvey and its surrounding counties.

**About Newton Medical Center:**
- Recognized by Healthgrades® for the fourth consecutive year for outstanding patient experience (2017-2020)
- One of The Chartis Center for Rural Health’s Top 100 Rural & Community Hospitals in the United States
- Recognized as one of America’s 100 Great Community Hospitals by Becker’s Hospital Review for the fourth consecutive year

"The BCA COVID-19 tool helps communicate important data points with key stakeholders and medical staff, without text-heavy attachments. This dashboard is a valuable tool for arming managers with real-time statistics related to the state of COVID-19 within the Newton Medical Center health system."

Heather Porter
Chief Clinical Officer and Incident Commander
Newton Medical Center

**MEDITECH Customer Success Story | 34**
Ridgewood, New Jersey, home to The Valley Hospital, was on the outskirts of the pandemic’s epicenter last spring. At the end of March 2020, New Jersey had the second highest number of COVID-19 cases in the country. By April, coronavirus patients made up 75 percent of Valley’s census.

To monitor its patients’ COVID-19 status, Valley uses Quality and Surveillance, MEDITECH’s predictive analytics solution.

**How Surveillance works**

Surveillance uses evidence-based rules to analyze data in real time, identifying patients who meet specific criteria. Status boards and trackers throughout MEDITECH’s EHR automatically update with qualified patients and alerts broadcast to staff via mobile devices.

Valley’s primary Surveillance specialist, Chris Neumann, said, “The solution can be used for anything, but we specifically modified it to manage our patients who test positive or negative for COVID-19, or are waiting for test results.”

**Positive, negative, and pending result profiles**

Early in the pandemic, Valley’s IT staff built a status board to track ventilator patients who were COVID positive.

“Clinicians wanted to be able to determine how many patients had COVID-19, so the patients could be managed with the proper isolation protocols,” said Valley AVP and CAO Mike Burke. “With the number of cases skyrocketing in New York and New Jersey, we were concerned about having enough PPE and ventilators.”

This status board evolved to identify patients with a positive, negative, or pending lab result. Using color-coded indicators that are attached to various status boards and trackers, staff can quickly see patients’ status.

As the pandemic continued, Valley refined the positive profile to include patients who have been identified by Infection Control as COVID-19 positive from outside results and require isolation.

**Recommendations for building profiles**

Like most hospitals in the earliest-hit communities, Valley’s response at the beginning of the pandemic was reactionary. But after building several iterations of COVID profiles, Neumann is now in a position to offer valuable advice.

“In hindsight, it’s so important to ask the right questions before building your profiles,” he said. “What exactly are you tracking, equipment? Available beds? What patients are occupying those beds? We didn’t ask these questions in the beginning.”

Neumann noted that, as the situation changes, what you’re looking to track may also change.

“The great thing about Surveillance is, it’ll help Valley to adapt to whatever the future brings.”

The Valley Hospital at a glance . . .

Located 26 miles from New York City, The Valley Hospital (Ridgewood, NJ) serves approximately 440,000 people in the Bergen County area.

About Valley:
- Part of Valley Health System, which also includes Valley Medical Group and Valley Home Care.
- Recent awards include:
  - Pinnacle of Excellence Award in Patient Experience by Press Ganey.
  - “A” grade in patient safety from The Leapfrog Group.
- The hospital is dedicated to community service, providing healthcare education, support groups, and screenings to those in need.

Surveillance Resources

For more information on Surveillance and COVID-19, please see Leveraging MEDITECH’s EHR During the COVID-19 Pandemic.

Val Verde Regional Medical Center
Keeps Patients Engaged At Home Through Expanse Remote Patient Monitoring

Providers and patients work together remotely during COVID-19

Located in the small border town of Del Rio, TX, providers at Val Verde Regional Medical Center recognized that getting to and from medical appointments could be a burden for some patients - particularly the elderly and those managing chronic conditions. And once the COVID-19 pandemic forced more people to stay in their homes, reaching these patients in safe and convenient ways became the priority.

“We wanted something easy to use, that our patients could just plug in, and they’d be up and running. A remote patient monitoring (RPM) program that worked effortlessly with MEDITECH’s Patient Portal and Raziel Health’s remote care solution checked all our boxes,” said Val Verde CIO Keith Willey.

Increasing patient engagement

Val Verde started its RPM program with diabetic and hypertensive patients, since they would often go months between in-person appointments. These patients began monitoring their glucose and blood pressure readings from home, giving physicians access to this real-time patient-generated health data from their Clinical Data Summary screen in Expanse.

“It used to be very difficult for physicians to keep up with disease progression in these chronically ill patients,” said Willey. “Fortunately, our patients have found the devices very easy to operate, and they can immediately track their results on the MEDITECH patient portal. Patient engagement and compliance have improved, because people understand their conditions better and can see the trends. At the same time, clinicians have real-time information available in the EHR and can take immediate action - such as changing meds or bringing patients in for emergency appointments - if they see abnormal vitals coming in.”

While COVID-19 has forced us to change some of the ways we deliver care, it has also served as an opportunity for us to test the waters on new technologies, to the benefit of both our providers and our patients,” said Willey.

Making care more accessible

In order to be successful with remote patient monitoring, leaders at Val Verde knew they would need to be able to easily connect to patients at home, despite the fact that about 35% of Del Rio households do not have access to broadband internet. Since Wi-Fi couldn’t be a prerequisite for any of the devices they chose to send home with patients, they adopted scales and blood glucose monitors from Raziel Health that would work with a cellular connection. Once plugged in, the Raziel Health provided cellular connection works in the background without the need for internet connectivity, to quickly transmit patient vitals to the cloud and to Val Verde’s Expanse EHR.

“It was very important for us to employ technology that could keep providers connected to everyone in our community, regardless of whether they have internet access,” Willey said. “It’s been an essential tool for us to strengthen the ties between clinicians and patients, especially when in-office visits are not possible.”

Val Verde Regional Medical Center at a glance

• Established in 1959
• 93-bed hospital, level IV trauma center, and emergency room
• 700+ employees

About Del Rio, TX*

• Population: 35,760
• Median household income: $44,959
• Persons without health insurance: 17.8%

What Val Verde’s patients think:

“I can do this, it’s not hard.”
“I like that I can see my results in the patient portal right after I take my BP.”
“I am impressed with the care.”

What Val Verde’s providers think:

“I can easily view real-time patient-generated data in my Clinical Data Summary screen.”
“Now I can monitor a patient’s blood pressure readings in real-time, instead of waiting a week to see the handwritten logs.”
“I don’t need to have an in-office visit just to adjust a patient’s medications. I have all the data in MEDITECH to know whether I need to modify a treatment regimen.”

Learn how MEDITECH can support your patient engagement efforts with Expanse.

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* Data provided by census.gov

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Learn how MEDITECH can support your patient engagement efforts with Expanse.
To stay ahead of the coronavirus pandemic, the Maryland Department of Health mandated on March 3, 2020, that all healthcare organizations report to the state on any patients who present with symptoms of COVID-19. To meet the daunting challenge of pulling together the necessary data within 24 hours, the infection control department at CalvertHealth (Prince Frederick, MD) looked to its Business and Clinical Analytics (BCA) solution and their business application specialist to build a coronavirus monitoring dashboard. The team was already using BCA for its reporting features and was able to leverage datasets they had previously created to quickly build the dashboard and meet the next-day reporting deadline.

**CalvertHealth’s COVID-19 Monitoring Dashboard**

The dashboard groups patients with COVID-19 symptoms into two types: ILI (influenza-like illness) and ARI (acute respiratory illness). ILI patients have a fever over 100 degrees and a cough or sore throat. ARI patients have at least two symptoms that include cough, fever/chills, rhinorrhea/nasal congestion, shortness of breath/respiratory distress, or sore throat. Based on the number of symptoms present, patients are categorized as having either an ILI, an ARI, or both. CalvertHealth must report to the state health department any patient that presents with both or just one of those illnesses.

An infection control practitioner at CalvertHealth exports the patient/result data from the BCA dashboard and forwards that information to the Maryland Department of Health each day. Pulling the data directly from an interactive BCA dashboard saves time. But it also improves communication by enabling them to share information within CalvertHealth and to report it directly to the state.

**CalvertHealth’s Hospital Occupancy Dashboard**

Days later, CalvertHealth was tasked with developing a second BCA dashboard to address a new requirement from the Maryland Institute for Emergency Medical Services System — which also came with a one-day turnaround time. This request focused on reporting hospital bed availability in acute, pediatric, and ICU settings, as well as overall occupancy. The information must be submitted by 8 a.m. daily, and helps state officials move patients to hospitals and clinics that can best accommodate them, in the event of capacity issues.

Using previously built dashboards and datasets, CalvertHealth’s analyst created this dashboard in an hour and captured nearly all mandatory fields, with the remaining fields easily extracted from MEDITECH’s EHR.

Meeting the tight reporting deadlines set by government agencies during the pandemic is a challenge. Lisa Carlson, application specialist at CalvertHealth, commented, “We get these notifications on a Tuesday and need to report by Wednesday. We have to be extremely flexible and responsive to these requests. This gets the job done for us.”
St. Luke’s Health System
Saves Schedulers 5-7 Hours per Day Through Self-Scheduling of COVID-19 Vaccinations

**Achieves 55% patient portal enrollment across primary care patients.**

When St. Luke’s Health System first announced they would be offering COVID-19 vaccines, calls from the community tied up their 672 phone lines within 30 minutes and prevented them from making any inbound or outbound calls. While they appreciated the community’s passion, they recognized that they would need a more efficient method for scheduling vaccinations.

### Benefits of self-scheduling

St Luke’s looked to MEDITECH’s Direct Booking feature to support patient self-scheduling of COVID-19 vaccinations. With self-scheduling through the patient portal, the system automatically confirms all of the patient’s details. Plus, it allows the patient to update their demographics and insurance and complete any necessary forms.

Patients embraced self-scheduling right out of the gate because they can see provider availability and select the date and time that works best for them — no waiting on hold. Within a few hours of releasing 150 appointments per day to self-scheduling, the whole week was booked. Once they added a second week, appointments were gone in just eight minutes.

Prior to self-scheduling, schedulers were spending two to three minutes per patient, manually looking up their records and confirming information. St. Luke’s calculates that self-scheduling is saving their scheduling staff approximately five to seven hours per day.

### Not every patient has a portal

While the portal is the most efficient method for scheduling, Director of Information Technology Clark Averill knew they needed additional options for those patients without a portal.

“We knew that to be truly equitable in our vaccine distribution, we would need to hold some vaccinations for patients who did not use our patient portal, such as some of our senior populations, those without internet access, or just those lacking familiarity or comfortability with technology,” explained Averill. “We currently designate 50 percent of our vaccine appointments for self-scheduling and the other 50 percent we provide through direct patient outreach.”

### Portal enrollment doubles

St. Luke’s ability to leverage the portal throughout the pandemic led to a significant spike in portal enrollment, from 27,000 in March 2020 to over 55,000 a year later. Other factors contributing to enrollment included the availability of virtual visits and access to COVID-19 test results, which led to a rise of 300–400 sign-ups per week. Today, over 55 percent of patients assigned a St. Luke’s primary care physician are enrolled in the patient portal.

Now that vaccinations have provided them with a strong proof of concept, Averill sees new opportunities for self-scheduling of other appointment types as well.

### St. Luke’s Health System at a glance...

St. Luke’s Health System (Duluth, MN) is a 267-bed, not-for-profit facility that provides healthcare services to the residents of the Lake Superior region.

#### About St. Luke’s:

- Includes two hospitals and over 40 clinics.

Clark Averill
Director, Information Technology
St. Luke’s Health System

“By empowering patients to directly book their own COVID-19 vaccinations in our MEDITECH patient portal, we’ve saved our scheduling staff countless hours, freed up our phone lines, and provided our patients with the convenience of scheduling a time that works best for them.”

Clark Averill
Director, Information Technology
St. Luke’s Health System

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Recognizing that patient management and clinical quality metrics are key to improving care, Kingman Regional Medical Center engaged MEDITECH Professional Services to implement a robust, KPI-driven solution within six months; this initiative laid the foundation for their efforts to improve quality while optimizing financial returns.

So far, the KPI-driven solution has streamlined workflows for capturing discrete data and led to strategies for preventive health management. Robust reporting mechanisms have helped to improve care quality and offered opportunities for reimbursement from insurance payers.

**Targeting people, process, and performance**

KRMC’s multidisciplinary committee engaged with MEDITECH Professional Services to adjust workflows to meet the hospital’s needs; facilitate access, assignment, and accountability; and align with MEDITECH’s regulatory best practices.

KRMC staff received expert guidance and designated resources from MEDITECH to help make the required process changes and maximize new workflows. Learning quality reporting strategies will enable KRMC to tackle future projects independently.

**Partnering with payers**

As the largest volume payer for patients with Medicare Condition and Patient Management benchmarks, onboarding Humana Medicare Advantage was vital to the project’s success.

By mapping clinical quality measures and adjusting workflows for discrete data capture, KRMC closed gaps between the $16K referenced in missed opportunities and actual reimbursements from Humana.

**Improving diabetes care**

Due to their high volume of diabetic patients, KRMC felt diabetes presented a scalable use case; 60 percent of their quality measures, including eCQMs, are linked to diabetes. The program aimed to provide more comprehensive diabetic care — and more appropriate documentation of that care — to improve reimbursement and Medicare star ratings.

KRMC adopted functionality in their ambulatory workflows to foster proactive condition and wellness management, designing diabetes and wellness registries and health management protocols. A case coordinator role was created to close care gaps and understand opportunities using the Humana Diabetes Patient Registry.

**Planning for the future**

KRMC aims to address other quality initiatives with the knowledge gained from MEDITECH Professional Services.

“This is just the beginning of our journey,” said Shennar. “We experienced a very positive outcome from this [engagement]... I look forward to continuing to work with MEDITECH Professional Services.”

**KRMC at a glance...**

Kingman Regional Medical Center is a 235-bed healthcare organization with multiple campuses located in Kingman, AZ.

**About KRMC:**
- Largest provider in northwest Arizona
- Mayo Clinic Care Network Member
- Sole non-profit hospital in Mohave County
- Only hospital to receive the Governor’s Arizona Innovation Award
- Arizona’s first rural teaching hospital

With support from MEDITECH Professional Services, KRMC used MEDITECH’s registries and Business and Clinical Analytics solution to:

- Compile an accurate patient attribution list.
- Highlight clinical quality measures.
- Identify care gaps and missed opportunities.
- Maximize reimbursement through improved documentation and discrete data capture.
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