Case Study: CORES IN USE

WHAT YOU WILL LEARN

• How your existing EHR can be modified to rapidly improve clinical communication and collaboration
• The specific outcomes a major non-profit health system is experiencing with CORES and how it is impacting clinical efficiency, EHR satisfaction, patient care, and care team collaboration
• How this health system is closing the gap between how their EHR used to work, and the specific information needs of each of their service lines
• The everyday experiences of how clinicians are using CORES

I. THE CHALLENGE

Does this sound familiar? In most health systems patient handoffs are unstructured and variable across providers and departments. For most, this is very time-consuming and involves a large amount of manual data entry.

The health system using CORES was seeking a way to improve clinical communication and collaboration among providers and, at the same time, make clinical workflow more efficient. Stakeholders described the need to improve provider handoffs and decrease the likelihood of any patient being “left behind.”

As one physician liaison explained, “We didn’t really have patients that were ‘left behind,’ so to speak, but the level of manual work required from our providers to achieve a concise handoff was big.”

At its highest organizational levels, the health system recognized the critical importance of leveraging the investment value of the EHR to enhance patient safety and clinical workflow efficiency during handoffs, through better access to relevant patient information.

Another physician liaison explained the need to “see patient data quickly, in one place”.

WHY CORES ROUNding/HANDOFFS

When top leadership at the health system learned about CORES, the decision to move forward was unanimous.

The Medical Informatics Director explained the decision like this. “Patient safety, physician satisfaction and the patient’s sense of care are key priorities for us. CORES has the ability to positively impact all three, in addition to improving physician efficiency, which translates into a return on investment. We selected CORES because the tool is well-designed, and significantly enhances our ability to improve provider handoffs. CORES lays out the information that care teams need in a very logical format. This significantly improves the efficiency and safety of the handoff process, and also facilitates more face-to-face time with the patient.”

QUICK FACTS

This case study is based on the user experiences of experiences of CORES Rounding/Handoffs (CORES), at one of the largest, non-profit health systems in the nation. They are a recognized leader in the delivery of innovative, high quality care.

Central to their strategic plan is the successful implementation and adoption of game-changing innovations that promote clinical collaboration and people-centered care.

FACTS & FIGURES:

• Began implementing CORES: Rounding/Handoff solution in 2016.
• Annual operating revenues in the billions.
• More than 100,000 employees, including thousands of employed physicians and clinicians.
• Committed to those who are poor and underserved in its communities.
II. THE SOLUTION

The health system partnered with TransformativeMed to implement CORES Rounding/Handoffs solution via a system-wide process of service-specific customizations. Today, CORES supports clinical communication and collaboration in more than 40 service lines across the health system, closing the gap between each service line’s specific information needs and how their EHR works.

IDENTIFIED HEALTH SYSTEM NEEDS

- Leverage the EHR investment to close the gap between the specific information needs of each service line and how the EHR works
- Improve provider efficiency
- Improve patient safety
- Improve care quality
- Increase provider satisfaction

The CORE Value Suite is transforming the EHR workflows for thousands of providers—working in every acute care specialty. CORES solves critical workflow challenges the EHR neglected to address—closing the gap between the EHR vision caregivers bought into—and the reality of the EHR they work with.

CORES Rounding/Handoffs Features

- Embedded within the EHR and knowledge-engineered to present patient information in a way that fits each service line’s specific workflow
- Automatically creates a comprehensive, current, portable patient list
- Optimizes workflow efficiency when preparing for rounds
- Makes provider handoffs safer and at the same time, more efficient

Sampling of the CORES Rollout

REGION 1: We implemented a soft roll-out, by identifying super users to assist with the CORES build and communicate with the rest of the team.

REGION 2: We engaged pilot physician groups, identified a champion, trained and went live.

REGION 3: First, we rolled out a pilot with a few service lines, then expanded to additional service lines with provider input. The fact that sites had access to some build tools helped us set up demonstrations using real service lines, real patients, real results. This made sense to providers. It also allowed the sites to modify some parts of the tool as providers are learning and using.

REGION 4: We started by having the residents use CORES in every department.

REGION 5: We talked to a few of the providers from each service to understand what their handoff process was. Then we identified 1-3 providers per service to learn the basics of CORES functionality and decide the build format for their service.

REGION 6: We identified early adopters by introducing CORES at Physician department meetings, then worked with the service lines that expressed early interest to configure CORES based on their needs. Once built, we demoed again at individual group team meetings, as well as engaged physician coaches to work with individual providers for additional (at the elbow) training.

The impact of CORES at was assessed through a physician survey of CORES users and non-users, as well as qualitative interviews with physician liaisons, the Director of Medical Education, the Director of Patient Safety and the Director of System Medical Informatics.
III. PATIENT SAFETY FINDINGS AND USER COMMENTS

PATIENT SAFETY IMPROVED
CORES IMPROVES PATIENT SAFETY

62.2% vs. 31.2%

of physicians that use CORES to track tasks across patient care transitions agree, or strongly agree, that it improves patient safety.

of physicians that are not using CORES, agreed, or strongly agreed, that the process they were using improved patient safety.

CORES PROVIDES THE INFORMATION NEEDED

87.5%

of physicians using CORES feel that the majority of the time, all of the key information they need is included in the handoffs they receive. (attending physicians excluded)

CORES IMPROVES HANDOFF QUALITY

86.4%

of physicians using CORES agree, or strongly agree, that CORES improves the quality and reliability of their handoffs.

CORES IMPROVES CARE CONTINUITY

91%

agree, or strongly agree, that CORES improves the continuity of care.
USER COMMENTS

“I love the CORES tool. The portability of it as a patient moves from the SICU makes this superior to anything we’ve used before. There is less error because values pull through automatically.”

– PHYSICIAN USER

“We catch one or two medication errors a day, thanks to CORES. Now we correct mistakes in real-time, instead of a day or two later. I can make sure that the patient is safe, and I can also give my students better feedback on their patient care. This has helped a ton with making correct decisions during rounds and saves us from having to find out a day or two later that we made a bad decision based on bad information having been presented at the time.

– PHYSICIAN USER

“AVERAGE COST OF HOSPITAL-ACQUIRED DRUG EVENT

According to the Agency for Healthcare Research and Quality (AHRQ), the average cost estimate of one hospital-acquired adverse drug event (ADE) is $5,746. If even just 10% of the medication errors CORES helps the team to catch at St. Joe’s every year were instead allowed to develop into ADEs, the additional costs to St. Joe’s would be on the scale of $300,000 to $400,000.

PATIENT SATISFACTION AND FINANCIAL RISK

The impact of patient satisfaction on cost savings is difficult to calculate. But now that the Centers for Medicare & Medicaid Services (CMS) has tied hospital payments to the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) score, poor performance on patient satisfaction is a recognized financial risk.

Across our different disciplines, we didn’t use to communicate as well. For example, OB residents don’t come up to the medicine floor more than twice a year, when there’s a pregnant person up there. Now, when they come up, they can easily see on CORES what all the big issues are with that patient. That helps significantly with patient safety.”

– DIRECTOR OF MEDICAL EDUCATION

“Avoiding High Cost “Big Issues”

Average costs for hospital-acquired conditions such as a single pressure ulcer, a catheter-associated urinary tract infection, a venous thromboembolism or a surgical site infection are $14,606, $13,793, $17,368 or $28,219, respectively. When CORES makes it easier for providers to quickly grasp a comprehensive and up-to-date view of all the big issues” with a patient, these are just some of the conditions that are avoided.

I also can’t tell you enough about how much CORES has helped my conversations with patients, and our communication across disciplines. When we’re in a room with a patient with a complicated condition, and I have a family member that’s grilling me on the details, it’s really nice to be able to answer all of their questions right there. I’m not just speaking from memory or saying let me step out and look at the computer. With CORES, we walk in armed with all the information, nice and condensed, and accurate.”

– PHYSICIAN USER
IV. CLINICAL EFFICIENCY FINDINGS AND USER COMMENTS

CLINICIAN EFFICIENCY & SATISFACTION IMPROVED

CORES SAVES TIME

90.2% of physicians agree, or strongly agree, that CORES saves them time preparing for rounds.

USERS PREFER CORES

86.4% of the first CORES users agreed or strongly agreed that CORES serves their work better than their previous process. When this survey topic was probed again, with the final wave of CORES adopters, 76.5% of physicians again said that CORES is better than the electronic patient list system they were using previously.

CORES IS EASY

68.2% of physicians who use CORES to gather patient data in preparation for rounds agree, or strongly agree, that the system is easy and efficient. (attending physicians excluded)

CORES FITS ALL ACUTE CARE SPECIALTIES

70.1% of physicians that generate a patient list from CORES to use during rounds, agree, or strongly agree, that this list has the information they need, in a format that fits their workflow.
USER COMMENTS

“Since the EHR came in, physician burn-out is going up. We hate using the EHR. For years, it’s just been adding time on to our days. CORES takes time off. With CORES, we now have a way that the EHR makes our life better. Those of us that have been practicing for a long time feel like finally, we are seeing the good part of the EHR. There might be other good things about the EHR, but CORES is one of the best. It’s saves us time, improves our accuracy and helps with patient safety, every day.

– DIRECTOR OF MEDICAL EDUCATION

“From the many changes we bring to providers, CORES is definitely one that they liked.”

– PHYSICIAN LIAISON

“Providers have told me that they are more efficient with CORES. They have to do less work to get what they need from the EHR for their handoffs.”

– PHYSICIAN LIAISON

“This software is revolutionary. It’s the future.”

– PHYSICIAN USER

“CORES is an extremely helpful product and was very easy to integrate into my workflow.”

– PHYSICIAN USER

“This is by far the best tool I’ve seen the hospital acquire in the last 4 years to help providers.”

– PHYSICIAN USER

“Once our residents use CORES, they can’t imagine a different way to round on and hand off their patients. Of all the EHR updates provided, this one has been the easiest to rollout. I hear, ‘finally something that actually improves the work.’ We have some extremely committed users that can’t imagine having to do without it. Even providers that do not use all the features of CORES use it to print patient lists to include labs, meds, and vital signs. This saves quite a bit of time. Rounding has improved, and the pre-rounding meeting goes quicker, so it’s more efficient.”

– PHYSICIAN LIAISON

Provider burn-out affects a hospital’s bottom line. Estimates for the cost to replace an existing physician range from $25,000 to $1 million and the current national rate of burnout is at the crisis level of 42%.
V. CONCLUSION

CORES INCREASED EHR INVESTMENT VALUE
According to physicians, physician liaison and administrator stakeholders at the health system, CORES has:

• Increased the correction of medication errors in real-time, preventing potential adverse events
• Enabled better decision-making during rounds, for more patients
• Increased the safety and accuracy of provider handoffs
• Increased physician satisfaction
• Improved clinical workflow efficiency, communication and collaboration

SOURCES
Physicians across all service lines were surveyed about their experience with CORES. Surveys were conducted at two different time points, with 183 physician survey responses collected in total. Respondents included residents, interns, advanced practice practitioners, and attendings. As a comparator, physicians in service lines that had not yet implemented CORES were also surveyed. There were some variations in the total number of responses per question. This was due to the different collection time points, and because not all questions were appropriate to all roles (for example, we did not include attendings in questions about pre-rounding preparation).

ABOUT TRANSFORMATIVEMED
Founded in 2011, privately-held TransformativeMed is the first to knowledge-engineer the Electronic Health Record (EHR) with directly embedded, clinician-friendly workflow solutions for every acute care team. Machine-learning and mobile enhancements ensure that EHR-based patient information is provided the way specialty-focused care providers need it, as they work. With EHR user friction removed, caregivers dramatically reduce repetitive data entry, streamlining workflows and decision support, while health systems realize a faster return on investment value from their existing EHR system.

More than 120 hospitals including Dignity Health, Baptist Health, and Christiana Care are using the CORE Value Suite to improve clinical communication and collaboration

ABOUT CORES ROUNDING/HANDOFFS
Designed by practicing physicians to optimize workflow efficiency & quality patient care, CORES Optimized Clinical Workflows are a proven way to improve clinical communication and collaboration. Out-of-the-box EHR embedded, and amplified with AI, machine-learning & voice, CORES offers quick clinical adoption and provides instant EHR return on investment.

MOBILE & EHR FUSION

Mobile Workflows: Replaces the need for paper
Smart & Easy: Speak, swipe or click to automatically add tasks
Personalized: Choose what you do or don’t want to see
EHR-to-Phone Accuracy: Contact the right person the first time

CLINICIAN FRIENDLY & IT SMART

Single Sign-On: Seamless with EHR: iOS, Android, Mobile-to-Desktop
Intuitive & Smart: Maximizes voice, mobile, swipe, AI/machine-learning
Natural: Designed by practicing physicians
Easy: Zero interfaces. Embedded inside Cerner
Fast: Rapid implementation, minimal training