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# Optimizing the EHR is Not Enough

The Case for Technology-Enabled Clinical Transformation in the Age of COVID-19

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COVID-19 has created a burning platform to fundamentally transform clinical processes to reduce the cost base, enable the restructure of the physician enterprise and transform the clinical operating model. To recapture volume and revenue, health systems must quickly transform their clinical operating model to provide coexisting systems of care for COVID-19 and non-COVID-19 patients. They must also make strategic changes to deploy tailored primary care models, restructure procedural specialty practices and organize integrated specialty care teams, all while quickly stabilizing and expanding their virtual health platform. These demands only add to the clinical operations improvement agenda that predated COVID-19.

**Electronic health records (EHRs) will be a pivotal enabler of successful clinical transformation to advance these efforts.** Yet, EHR implementation and optimization strategies deployed to date haven't driven material value and will be woefully insufficient to drive the transformation required in the age of COVID-19.

Certainly, technology enablement is a foundational component for significant and sustained organizational improvements in efficiency, quality and end-user satisfaction, but viewing technology as a solution rather than an enabler is a mistake. Healthcare is fundamentally driven by the people who provide the care and the processes they use. Rather than implement new technology with the expectation that it will solve the problem, there needs to be a robust effort to understand the root causes of clinical operational challenges and a coordinated and collaborative effort to address those root causes. While technology may be part of the solution, it is rarely the only, or even the most important, transformation needed.

## Current Optimization Strategies Don't Work

Many healthcare organizations have become disillusioned by the ineffectiveness of EHRs in improving efficiency, experience and value. Given the implementation and optimization strategies commonly deployed over the past decade, it is easy to understand why this is the case.

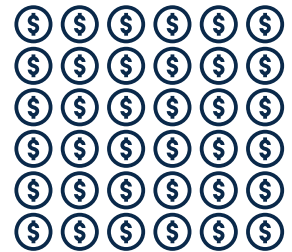
In the rush to capture Meaningful Use dollars, EHRs were often implemented without specific benefit goals or sustained attention to achieving those goals. In an effort to speed implementation, often at the suggestion of the vendor, "model" or "foundation" technology was implemented without adequate attention to efficiency or effectiveness needs of front-line caregivers. The intent was good — to launch optimization programs following implementation that dive deeper into these needs and make the necessary changes to the system to drive clinical transformation. However, in most organizations these optimization programs never materialized in an effective way.

EHR implementations are huge endeavors with enormous associated costs, and because of this, they are often the organization's number one priority. That being the case, during implementation there is generally significant executive engagement, commitment to focused and dedicated resources, development of governance for decision making, willingness to fund needs, and attention to operational readiness, change leadership and adoption.



Despite the

**\$36  
BILLION**



**INVESTMENT**

by the government to digitize health records

**AND MILLIONS**

**MORE  
SPENT**

by organizations, few have fundamentally transformed clinical care.<sup>1</sup>

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**move the  
needle.**

Once implementation is over, the organization shifts focus to other priorities. Often that translates into executive distraction, gradual disintegration of governance structures, insufficient or multi-focused resources, inadequate funding and decreased collaboration between IS and operations as they move down divergent paths. IS becomes focused on implementing the features and functions in the latest upgrade, while operational areas focus on the next pain point, strategic priority or, simply, everyday operations.

It is perhaps this last point that may be most important to understanding why optimization strategies currently being deployed have not been effective and will not be sufficient in the age of COVID-19. When there is not close collaboration between IS, operations, informatics and performance improvement teams to address key clinical operational pain points and organizational strategic priorities, upgrades continue to occur with implementation of new features and functions without conscious discernment about how these new features will help the organization move the needle. Enhancements to the system are requested and implemented without appropriate governance to determine if the enhancement will help drive best practices. There is little attention to adoption of new features and functions by end-users, negating potential efficiencies. This disconnect is the key to understanding the failure to fully achieve benefits from investments in EHRs.

More recently, some organizations have had time-limited focused projects to drive optimization. This may take the form of a vendor-driven optimization initiative. This time of heightened focus may be effective for achieving incremental gains, but in order to drive sustained value and the true change required, it is critical to take the approach of collaborative clinical transformation and continuous improvement "virtuous cycles" rather than arbitrary technology optimization and time-limited, disjointed optimization projects. All of this must be completed with an eye on the prize: recapture demand, fundamentally reduce the cost base, restructure the physician enterprise and transform the clinical operating model — including integration of a significantly higher portion of services being delivered virtually. An approach for successful benefits-driven, technology-enabled clinical transformation is illustrated in Figure 1, with additional detail following the examples.

Figure 1. Benefits-Driven, Technology-Enabled Clinical Transformation Approach



# Examples of Successful Technology-Enabled Clinical Transformation

A few healthcare organizations have been able to move the needle through technology-enabled clinical transformation programs. Below are two examples.

## EHR IMPLEMENTATION FOCUSES ON CLINICAL AND REVENUE CYCLE TRANSFORMATION

Virtua Health (Virtua) implemented a new enterprise EHR with a focus on transformation, maximizing value and continuous improvement in order to drive substantive improvements in patient safety, quality and cost of care, patient and family engagement, operational efficiencies, and staff effectiveness and satisfaction. By targeting key strategic priorities and leveraging robust governance, process improvement and operational readiness, Virtua was able to “move the needle,” improving quality and compliance by significantly improving CPOE, initiating bar code medication administration and addressing specific targeted areas including heparin administration through robust clinical decision support. Additionally, Virtua increased professional billing average daily revenue by 23 percent and average daily collections by 28 percent over six months.<sup>2</sup>



Virtua increased professional billing average daily revenue by **23%** and average daily collections by **28%** over six months.

## OPERATIONALLY-LED, TECHNOLOGY-ENABLED TRANSFORMATION INITIATIVE DRIVES SIGNIFICANT IMPROVEMENTS

Franciscan Health (Franciscan) launched a clinical transformation initiative targeting improvement of patient, provider and staff experience as well as operational efficiency. Through collaboration of IS and the Transformation Team, as well as robust operationally-led governance and operational readiness, Franciscan targeted key strategic priorities, improved operational processes and identified areas that could be supported by technology to drive improvements. Enhancements to operational processes resulted in a 111 percent improvement of test results released within 24 hours. Initiating pre-surgical questionnaires through the patient portal allowed a streamlined pre-surgical patient experience. Implementing an automated appointment messaging system to allow waitlisted patients to select earlier unused appointments resulted in an average reduction in wait of 34 days as well as an 11 percent increase in open slots filled. In addition, Franciscan implemented electronic check-in functionality, allowing patients to complete check-in prior to arrival. Implementation of a transport mobile app and transformation of processes allowed the shift of transportation services away from nurses to dedicated transport resources, which improved bed clean turnaround time by 19 percent and increased timely nursing documentation from 68 percent to 92 percent. Lastly, refresher training for providers was implemented, resulting in a 22 percent decrease in time spent in the EHR after hours.



Provider refresher training resulted in a **22%** decrease in time spent in the EHR after hours.

Those providers who take a fundamentally new approach to technology-enabled clinical transformation can capture a unique opportunity to ensure that their technology platform is a key enabler to resolving the clinical operational pain points that existed before COVID-19, as well as those issues that have been exacerbated or introduced by the pandemic. Success is predicated on a disciplined and benefits-driven approach, laser focused on organizational strategic priorities, strong partnerships between IS and operations, and a robust operational readiness and change-leadership structure.

We recommend that organizations take the following steps as part of the technology-enabled clinical transformation effort:



## Establish a Benefits-Driven Framework

- **Focus on organizational strategic priorities and identify strategic benefits.**  
*Key stakeholders agree on a limited number of strategic benefits as the primary focus of technology-enabled transformation efforts within a specified timeframe informed by performance analytics, operational pain points and organizational strategic priorities.*
- **Establish a well-defined benefit mechanism.**  
*Each strategic benefit is clearly described, including process and technology changes that drive realization, expected benefit amount and realization timing.*
- **Develop and sustain a robust operationally-led, benefits-focused governance structure.**  
*The governance structure prioritizes what is meaningful to the organization, enables an effective decision-making process, establishes benefit "ownership," facilitates adoption and monitors performance against goals.*
- **Develop and utilize an enduring measurement and monitoring system.**  
*Analytics teams are proactively involved and help IS and operations develop specific processes for data collection, analysis, reporting and monitoring.*
- **Drive benefits via PDCA (Plan-Do-Check-Act) cycles, informed by operational metrics.** *Each strategic benefit is relentlessly pursued via rapid improvement cycles driven by regular reporting of key outcome and process metrics.*



## Leverage Analytics and Informatics Capabilities

- **Utilize clinical informatics to drive value realization.**  
*Clinical informaticists play key roles in workflow optimization, identifying opportunities for process improvement and technology enablement, developing meaningful analytics, and fostering change leadership and adoption.*
- **Apply robust analytics for opportunity identification and performance measurement.** *Analytics programs are utilized for both identifying opportunities for improvement and measuring performance against goals.*



### Integration and Process Improvement

## Use Integration and Process Improvement to Drive Outcomes

- **Partner to address operational needs.** *There is close collaboration between IS, operations, informatics and performance improvement teams to address key clinical operational pain points and organizational strategic priorities.*
- **Use technology as an enabler of streamlined, effective processes.** *Once streamlined and effective workflows are designed, technology is used to present the right information to the right user at the right time in the workflow, eliminate duplication, automate activities that do not require human labor, eliminate barriers of geography or time or otherwise enhance the process.*



### Operational Readiness Structure

## Develop an Effective Operational Readiness Structure

- **Use broad and transparent communication strategies.** *Communication plans deliver proactive, transparent and targeted messaging via effective, multi-modal marketing techniques.*
- **Engage broadly with organizational stakeholders to develop buy-in and deliver optimum future-state design.** *IS engages and partners broadly with clinical and revenue cycle operational stakeholders as well as informatics and performance improvement teams to design, standardize and align workflows and technology, guided by end-user needs.*
- **Employ a disciplined approach for addressing operational impacts of change.** *Workflows, roles and responsibilities, policies and procedures, and other needs are addressed holistically to identify impacts and risks, address gaps in performance to leading practice and standardization, and proactively plan for benefits realization.*
- **Develop and maintain a robust change-leadership structure.** *Individual and organizational energy is harnessed by articulating the case for change and organizational vision for the transformed state, and executive leadership drives the change.*
- **Focus training on end-user proficiency.** *Education incorporates best practices including integrating workflow into system training, offering effective personalization recommendations, encouraging operational input into training development and providing regular refresher training to support end-user proficiency.*

## Conclusion

Health systems must harness their EHR to successfully transform their care model, reduce their cost base, recapture demand and restructure their physician enterprise, but doing so will require that they take a fundamentally different approach, reframing optimization efforts to transformation and ensuring the essential capabilities are in place. As organizations rebuild and adapt to the new normal of COVID-19, a disciplined and benefits-driven approach to technology-enabled clinical transformation will ensure they emerge leaner and stronger.

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Tonya Edwards, MD is a Principal with The Chartis Group and a leader within the Clinical Informatics and Technology Practice. Dr. Edwards has over 25 years of experience in healthcare as a family physician and physician executive and consultant. She is certified in Clinical Informatics and Lean Six Sigma and has led numerous performance improvement projects. Dr. Edwards' recent work has focused on clinical IT governance, physician engagement and change leadership, clinical process improvement and technology enablement and clinical informatics strategies, particularly related to the role of clinical informatics in driving value. Prior to joining The Chartis Group, Dr. Edwards served as Medical Director of Informatics for Bon Secours Health System. Dr. Edwards received her medical degree from Eastern Virginia Medical School and completed her Master of Medical Management degree from Carnegie Mellon University and is a Certified Physician Executive. She is board certified in Family Practice through the American Board of Family Medicine and in Clinical Informatics through the American Board of Preventive Medicine.



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