Optimization: The Next Frontier

A White Paper
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Introduction

You’ve implemented your EHR, but so far your organization is not realizing the promised “value” that an EHR should bring. Now what? Perhaps your organization was among the many that took the approach of limiting scope during EHR implementation and deferred process improvements, specialized build or other improvements to the post-live “optimization phase.” Conversely, perhaps you are part of an organization that is about to embark on a new EHR project.

No matter where your health system is on the EHR implementation continuum, to get the most value out of your EHR, both for clinical and revenue cycle processes, it is critical to have workflows and build that eliminate waste, improve efficiency, improve user and customer satisfaction and improve the operational bottom line. In short, every organization should be continually looking for ways to optimize their systems.

Optimization Definition

For many organizations optimization is a metaphor used for “we’ll get it done later.” In fact, most organizations don’t take the time to develop an organization-specific definition of “optimization.” But if you want to get the most benefit from the time, effort and money you are about to sink into optimization efforts it is critical not to skip this step. Your organizational definition of “optimization” will become the guiding principles for selection of optimization opportunities, timing of optimization projects and evaluation of the success of the optimization efforts.

Optimization can occur before, during, or after an EHR implementation and can be defined along an operational continuum from tactical to strategic needs. However your organization defines optimization for its specific needs, at its core optimization efforts should be aimed toward outcomes-based improvement to meet a defined set of objectives.

Key Target Areas

Armed with a definition of optimization as “outcomes-based improvement to meet a defined set of objectives,” your organization is now ready to identify key target areas for optimization. It’s likely that your leadership team can identify many areas for potential improvement from top of mind. Perhaps you have considered hiring an external organization to look for issues that need to be addressed. If either of these is your organization’s historical method of identifying optimization opportunities, you are certainly not alone. In fact, most optimization opportunities are identified in one of these ways, unfortunately often yielding less than optimal results.

Targeted optimization in high impact areas, either clinical or revenue cycle, based on industry best practices and benchmarks are much more likely to yield high return on investment. Your approach should be outcomes-driven, not process-driven. For example, if your EHR vendor has a user group, you can leverage the collective knowledge and key performance indicators of existing clients to identify areas generating high value in optimization efforts. You can also focus on new or evolving regulatory requirements and
proactively engage your customers to determine optimization efforts of high priority to them. Industry associations are a great reference as well.

Impact Advisors’ experience working with clients has helped us to identify the “Top Ten Opportunities” to realize improved outcomes through optimization efforts. While some of the opportunities are primarily clinical or financial in focus, many integrate patient safety and quality of care (clinical) with the business aspects to ensure efficient operations (financial).

**Top Ten Optimization Opportunities**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Value</th>
<th>Example Focus Area</th>
</tr>
</thead>
</table>
| Improve the Quality of Care            | Enhance patient care while minimizing provider risk associated with reduced reimbursement | Population Health & Disease Management  
|                                        |                                                                      | Quality Monitoring & Reporting                                                     |
| Increase Patient Satisfaction          | Increase volume of select services and procedures                    | Wait Times & Throughout  
|                                        |                                                                      | Access to Information (patient portal, online statement review, mobile technology) |
| Increase Cash Collections              | Support fiscal integrity/financial health of the organization         | Denials & Underpayments Mgmt.  
|                                        |                                                                      | Cash Posting  
|                                        |                                                                      | Point of Service (POS) Collections                                                 |
| Decrease Aging Accounts                | Demonstrate revenue cycle’s ability to liquidate A/R                 | Charge Capture  
|                                        |                                                                      | Billing & Claim Submission  
|                                        |                                                                      | Account Follow-up                                                                  |
| Decrease Cost to Collect               | Enhance the efficiency and productivity of revenue cycle process      | Charting Tools  
|                                        |                                                                      | Bed Management                                                                    |
|                                        |                                                                      | Access to Imaging                                                                  |
|                                        |                                                                      | Discharge Planning                                                                 |
| Improve Caregiver Productivity and Patient Throughput | Decrease length of stay and increase the number of patients seen | Charting Tools  
|                                        |                                                                      | Bed Management                                                                    |
|                                        |                                                                      | Access to Imaging                                                                  |
|                                        |                                                                      | Discharge Planning                                                                 |
| Streamline Key Patient Access Functions | Standardize processes and centralize quality assurance to reduce denials and limit back-end rework | Scheduling  
|                                        |                                                                      | Insurance Verification                                                             |
|                                        |                                                                      | Registration                                                                       |
| Earn Government Incentives             | Realize government incentive payments for identified initiatives – most of which are facilitated through health information technology | Meaningful Use (MU)  
|                                        |                                                                      | Physician Quality Measures                                                         |
|                                        |                                                                      | E-Prescribing                                                                      |
### Optimization: The Next Frontier

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Value</th>
<th>Example Focus Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve Patient Safety Support</td>
<td>Mitigate risks associated with hospital acquired conditions, Adverse Drug Events (ADE) and readmissions</td>
<td>Infection Control, Virtual Patient Monitoring</td>
</tr>
<tr>
<td>Use the software and workflows as designed AND Enhance EHR and Operational Governance</td>
<td>Reduce variability of care</td>
<td>Organizational Change Management, Clinician Adoption, Workflow Standardization</td>
</tr>
</tbody>
</table>

**Timing**

Optimization projects can begin before, during and after an EHR implementation. For example, order set cleanup could be done in the pre-implementation planning phase of EHR implementation. Alternatively, the same could be accomplished in the post-live time frame many vendors traditionally call the “optimization phase.” Similarly optimization activities can be categorized as strategic or tactical in nature. In the following diagram (see Figure 1), the horizontal axis represents activities that span the continuum of tactical to strategic efforts. The vertical axis represents the time progression that begins in the status quo, evolves to pre-implementation planning, implementation activities (design, build, test, and train), go-live and post-live efforts of stabilization, upgrades, addition of new functionality, implementation of a new phase/application and optimization.

**Figure 1 – Optimization Timing**

In Figure 2, the left side of the diagram represents a sub-set of the tactical tasks that are usually associated with “system cleanup” or preparation for implementation build. While these tasks could be completed without an outcomes-based approach, the definition of the problem and ongoing metrics for monitoring will move the task from “tactical to strategic” The more strategic, outcomes-based approach is represented on the right side of the diagram.
Methodology

Clinical and revenue cycle optimization is not an easy task. Many organizations train teams in improvement techniques to address these issues. If you are new to optimization or have had limited previous organizational success in these efforts, hiring outside help to get you started can be helpful. Impact Advisors’ approach to optimization is outlined in the following key steps (and illustrated in Figure 3) to guide you through.

1. Establish and Measure KPIs to Identify High Priority Problem Areas

If your system already has a well-defined set of key performance indicators, you have a great starting place. If not, it’s time to get those established. Utilize industry sources like EHR user groups and management organizations to determine which KPIs make sense for your health system and start measuring.

- **Set specific targets and benchmarks.** Measuring is not enough. Once you have established your baseline performance, set specific targets and benchmarks for future performance.

- **Determine how you will measure progress.** Each KPI is different. Make a definitive plan for who is responsible for measuring, the frequency with which KPIs should be measured, and for which locations or departments.
2. Assess People, Process and Technology

Once you have established KPIs, the next step is to select an area to evaluate. Perhaps you are performing poorly in ED throughput or have low utilization of OR blocks. Likewise there could be issues on the revenue side, such as high days in AR. The next step is to assemble a team to evaluate the desired process. Once assembled this team should use widely accepted process improvement tools likely LEAN, Six Sigma, Continuous Process Improvement and others to evaluate the current state.

- **Current State Value Stream Mapping** is a useful tool to establish the current steps, delays, and information flows required to deliver a service. Often this includes steps that are “value-adding” from the customer’s perspective and those that are not.

- **Root Cause Analysis** is a problem solving technique used to determine the root cause of a problem. Often a simple technique like “5 Whys” is effective in getting to the root of the problem. More complex problems might require a “Cause and Effect Diagram.” Complex problems often have more than one root cause, and each must be evaluated.

- **Prioritization** is key. Once root causes are identified, you should apply the 80-20 rule, or Pareto principle, to determine which of the root causes identified are causing the majority of your problems. Fixing these problems should be higher priority for your organization. In addition, characterizing problems by the ease of implementation and impact to the organization will help to further prioritize problem resolution.

3. Optimize to Achieve Outcomes

You’ve identified and prioritized the root causes of your problem. Now it’s time to develop a solution.

- **Industry Best Practices** - Start by gathering information on industry best practices from EHR user groups, management associations, academic research and other sources.

- **Future State Value Stream Mapping** - Next, pull out your current state value stream map. Eliminate waste by eliminating “non-value-adding” steps and streamlining the process. Incorporate your findings from your industry best practices research into your future state value stream map.

- **Pilots** - Now it’s time to test your new workflows. Design and implement a pilot to assess the effectiveness of the new value stream to achieve the desired results.

4. Measure Key Performance Indicators

- **Measure post-optimization KPIs.** Once you have implemented the pilot, the next step is to monitor your KPIs and assess your performance.

- **Make adjustments until targets are achieved.** If your initial changes to the value stream don’t yield the desired result, re-evaluate and make adjustments; then re-measure. Continue this process until you achieve your target result.

- **Implement system-wide.** Now that your pilot is successful you are ready to implement your future state value stream system-wide. This introduces new
complexity, so take care to monitor closely and make sure that you get the same great results that you got in your pilot. If not, re-evaluate and adjust until you do.

5. Sustain Results

Many health systems have good short-term success from process improvement activities but fail to put in place infrastructure to ensure ongoing success. Don’t make this mistake!

- **Set up ongoing monitoring.** To have long lasting success, you must first put in place continuous monitoring of your process improvements. KPIs should be monitored in dashboards and, if patterns emerge that indicate your process improvements have been derailed, you should intervene immediately.

- **Reinforce the behavior change.** Often the very thing that derails optimization activities that had great initial success is organizational inertia, or people returning to doing things in the old, comfortable way. Avoid this by continually reinforcing the behavior change and demonstrating the value of the new way. After a few months, the new way becomes more comfortable and less attention is needed, but it’s wise to periodically continue to reinforce compliance with new, successful workflows.

6. Transition Ownership

Finally, if an internal process improvement team or a third-party led the optimization project, it is important to transition ownership of the improved process to front line operational leadership.

**Figure 3 – Impact Advisors’ Approach to Optimization**
A Final Word

A robust optimization strategy can help healthcare systems realize the promised value from implementation of an EHR, but success requires a disciplined, outcomes-based approach to meet a defined set of objectives. Organizations should identify key target areas, assess the appropriate timing for optimization activity, and employ proven process improvement methodologies to drive optimization. Using these techniques your healthcare system can eliminate waste, improve efficiency and improve the bottom line while increasing the “value” your services offer to customers.

About Impact Advisors

Impact Advisors provides high-value strategy and implementation services to help healthcare clients drive clinical and operational performance excellence through the use of technology. We partner with industry-leading organizations to identify and implement improvements in quality, safety and value. Our Associates are experienced professionals with deep domain expertise and a commitment to delivering results.

Impact Advisors is a recognized leader in the healthcare IT industry. We stay attuned to the latest technologies and trends impacting our clients through our involvement with advocacy organizations, including the Scottsdale Institute, HIMSS and CHIME.

Our Mission: Create a positive Impact!

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