Value based implementation

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With you today

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Goal for today: what we are seeing in the market?

Alignment between EHR implementation and Transformation

- TCO vs Value Based Implementation
- Transformation discipline
- Using professional services
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1. What are we seeing in the market: Implementation vs. Transformation
2. How do we define Value Based Implementation?
3. How are transformation and EHR aligning?
4. Using Professional services
What are we hearing?

Client CIO

“Go Live went on time, on budget and on scope; CEO not happy”

• Was unable to deliver and show value beyond a smooth go live

Vendor Executive

“Our clients need optimization help after go live, in revenue growth, productivity, physician productivity, governance, and other operational challenges”

• Addressed technology in isolation of People and Process, but more important there was no value proposition but TCO which included software related benefit realization
A new starting point? TCO vs. Value Based Implementation

Starting with the business case

**Typical Business Case:**
Technology Acquisition Cost  
+ EHR Implementation Cost  
+ Software/Hardware Maintenance Cost  
= Total Cost of Ownership (TCO)

**Value-Based Business Case:**
Technology Acquisition Cost  
+ EHR Implementation Cost  
+ Software/Hardware Maintenance Cost  
+ Care Delivery Transformation  
+ Post-Implementation Transformation  
= Total Investment  
+ Value Realized  
= Net Benefit

Typical TCOs lack consideration for care delivery transformation needed during and post go live
How is Value-Based Implementation (VBI) different from ROI

**ROI**
- Justifies initial investment
- Rarely used post-implementation
- Typically based on operational metrics –
  - FTE reduction
  - Patient Satisfaction

**VBI**
- Drives benefits realization
- Scope extends beyond system activation
- Value realized is based on strategic & measureable value –
  - Cost of care reduction
  - Patient retention

Vs.
Traditional implementation vs. Value based focus

EHR implementations have failed to deliver value because there has been no focus on value creation

A Value-Based Implementation focuses on achieving value rather than just system “activation”
Value Based Implementation requires a transformation approach

EHR Implementation

Selection
- Best perceived system based on features and functions

Implementation
- PMO driven focusing on Scope, Timeline and Budget

Go Live
- Success = System go live with limited if any downfalls

Transformation

Value Proposition
- Determine value to be achieved.

Execution
- Execute changes in People, Process and Technology

Sustainability
- Assure value created is achieved and sustained

Achieving a transformation through an EHR implementation requires both, question is how are these 2 aligned and synchronized?
The road to Care Delivery Transformation is a journey, not a destination

Services: A staged approach

Operationalization: put in place
- Operating model
- Call centre
- Service line implementation
- Scope of practice analysis
- Technology: EHR implementation/standardization

Optimization: get the most
- Team-based “continuity of care” design
- Physician Enterprise enhancement
- Cross department scheduling
- EHR optimization
- Enterprise interoperability

Transformation: eliminate non value added functions
New Care Delivery Model: Patient focused affinity & democratization of care
- Customer Relationship Management
- Precision medicine
- Virtual visits
Tomorrow’s organization will need six broad capabilities to enable a value based care delivery model

**Customer Engagement**
Personalized, transparent, convenient, and on-demand

**Margin Management**
Standard and efficient operations, shared service models, contract management, convergent practices, supports quality and risk based reimbursement models

**Clinical Integration**
Connection and integration of clinical and revenue cycle operations, aligning with strategic intent, going beyond population management and aligning the network

**Workforce Transition**
Organizational alignment, Integration of clinical and revenue cycle resources, improved critical thinking skills, new staffing models

**Predictive Analytics**
Adaptable models, machine learning, new and informed data sources, using data to predict and guide financial and clinical outcomes, agile responses to quality and risk pressure

**Integrated Technology across the Continuum of Care**
Appropriate use of workflow driven technologies that minimize human intervention to drive results, easy access to data for all stakeholders
When it comes to aligning EHR implementations and transformation, what are the perceived pros & cons?

<table>
<thead>
<tr>
<th>EHR Before Transformation</th>
<th>Technology platform available for transformation</th>
<th>Implementation not in line with Transformation, and risk of re-implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transformation Before EHR</td>
<td>Focus and align with overall Transformation</td>
<td>Technology platform not available for transformation</td>
</tr>
<tr>
<td>EHR &amp; Transformation</td>
<td>Full synchrony and ability to cover People, Process and Technology</td>
<td>Too complex to handle, HIT vendors typically recommend and push for a transformation after</td>
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</tbody>
</table>
Let us take an example: Physician productivity

- Typical concern is around physician adoption and impact on physician workflow
- EHR scope focuses on different but related areas
  - Physician: ease of use, screen design, adoption, workflow
  - Registration: ease of registration
  - Back end: proper billing
- We do see in benefit realization increase or no decrease in productivity
- In most instances we see decrease in some a 25% decrease for > 6 months
- What drives this disconnect are:
  - Lack of true value proposition developed but rather ability of a system that may or may not be sufficient to solve the problem
  - Focus is still on activation first and benefit later

*Covered or at least partially addressed by EHR*
How are transformation and EHR implementations aligning?

Determine Value Proposition
- Develop a corporate wide value proposition
- Validate and determine feasibility

Develop a Roadmap
- Ideation and details of current and future state
- Stakeholder buy in
- Risk and sustainability plan

Align scope & timeline between EHR and Transformation
- Scope
- Sequence
- Budget
- KPI and realization

Implement EHR under transformation discipline
- Common oversight
- Maintain overall PMO with a subset on EHR

Manage Risk
- Embed risk management and controls based on future state

Transformation begins
EMR implementation begins
Cost of care: identifying variability by service line

Value of variability by service lines based on Medicare FFS data

Source: Medicare FFS Data
Cost of care: Identifying variability by service line and among regions

Value of variability by service lines based on Medicare FFS data—Region #1

Value of variability by service lines based on Medicare FFS data—Region #2

Source: Medicare FFS Data
Roadmap

Access

- **Current state**: we offer centralized and cross departmental access

- **Future state**: we will perform predictive scheduling on all of our primary care, OB, Peds PC, and chronic disease patients. We will also offer virtual visit based on predictive outreach to the patient and family

- **Stakeholders**: physicians, centralized access, Revenue cycle, Risk management

- **Financial impact**: 
  - Increase in patient affinity \( \rightarrow \) xxMM$

- **Sustainability plan**: 
  - KPI: \( n \) of patient with predictive call/(\( n \) of patients with predictive call + \( n \) of patient with patient/family initiated call)

- **Risk**: 
  - Reimbursement
  - Cost of care increase/excess utilization

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**EHR implications:**

- Rules and data for predictive scheduling
- Rules for virtual v/s real encounter
- Virtual visit type and reimbursement
- Virtual visit workflow and EHR intake
- Patient access to EHR for data and digital (device entry)
- Rules for follow up on patients after a virtual encounter
- Quality controls for virtual visits
Roadmap

Pharmacy Stewardship Program

- **Current state:** we have a strong P&T committee addressing clinical indication
- **Future state:** we will increase the scope to include pharmaco-economic decision, and use medication profile as one of the drivers of care management
- **Stakeholders:** physicians, pharmacy, P&T, Finance, Population health
- **Financial impact:**
  - Decrease cost of care for patients with annual medication cost > $1,000
- **Sustainability plan:**
  - KPI: Expected v/s actual cost.
  - Change in P&T governance model
- **Risk:**
  - Impact of change of governance
  - Physician adoption
  - Impact on research
  - Conflict with disease based care management

EHR implications:

- Cost and pharmaco-economic embedded in medication profile
- Rules and Alerts
- Medication profile registries
- Medication profile care management workflow
- Rules and alerts specific for overlapping clinical conditions
- Pharmacist workflow

Future state

Use medication profile as one of the drivers care management

Add Pharmaco-economic decision

Current state

Clinical P&T
Roadmap

Order Set Usage

- **Current state**: we use admission order sets to drive standardization of care and educate our students and residents on proper care and best practices
- **Future state**: we will use order sets to test the knowledge level of our students and residents
- **Stakeholders**: students, residents, fellows, physicians, research, residency program directors,
- **Financial impact**:
  - Precursor to better clinical education effectiveness
- **Sustainability plan**:
  - Measure knowledge and impact of interventions
  - Feedback from residents and students
- **Risk**:
  - Slow down ordering process
  - Physician adoption

EHR implications:

- Design of order set
- Capture usage and usage time
- Develop or partner for knowledge testing material
- Embed knowledge testing for residents and students
- Capture results and link to educational interventions
- Report on usage behavior and create a learning analytics tool

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Future state

- Embed knowledge assessment in order sets

Current state

- Standardized admission order set
Align & implement: methodology

IT/EHR

Readiness

Implement

Activate

Go Live

Roadmap

Transform

Sustain

Develop Plan

Test

Mitigate

Risk Assurance

Transformation

Determine Value Prop

Develop a Roadmap

Align Scope

Transform with EHR

Manage Risk
## Align & implement: Value based transformation benefits

**Vision:** highest quality comprehensive continuum of integrated health care

**Purpose:** increase excellence in care and advance transformative efforts with their unified voice

### 1. Drive Care Excellence
- Enhanced care delivery and coordination due to access to single longitudinal patient record across the care continuum
- Higher clinical efficiency
- Reduced errors and redundancies
- Decreased mortality rates, readmissions, and LOS

### 2. that creates a better Patient Experience
- Management of the health of the population: one record, one outcome
- Improved access to providers according to clinical and personal need
- Improved use of technology infrastructure due to integration, usability, reliability, and stability

### 3. which leads to Physician Alignment and Team Satisfaction
- Ease of access to “patient’s complete story”
- Enhanced workforce: resource optimization and team-based care model
- Increased standardization in workflows and processes: assessments, treatments, preventive services and follow-up care

### 4. and enables Financial Excellence
- Reduced cost: pricing, cost per case etc.
- Enhanced profitability through margin management

### 5. through the Value of Integration
- Enhanced experience of “consistent”, coordinated” and “integrated” care
- Increased consumer participation
- Improved choice
- Enhanced safety of care and services
Putting controls in place: What can go wrong with an EHR transition...

**Organizational**
- Impact of organizational culture
- Users don’t understand or struggle to use the system
- Difficulty recruiting and retaining staff
- Cost overruns result in project going over budget, time and scope
- Cybersecurity/ Privacy violations

**Clinical & Operational**
- Patient access challenges
- Increased Patient and Provider dissatisfaction
- Quality care compromised due to unintended consequences or omissions
- Workflows not operational, aligned and/or conducive to end users
- Challenge to produce official medical records

**Financial & Compliance**
- System doesn’t function as intended, inaccurate or incomplete billing
- Revenue cycle implications and cash flow disruptions
- Segregation of Duties violations
- Fraud or financial statement integrity issues
- Regulatory non-compliance (e.g. Meaningful Use)

**Technology**
- System is not available when needed
- Interoperability: Interfaces don’t accurately or completely exchange information
- Insecure configuration resulting in data breach
- Access is not restricted or based on user roles
- Lack of resilience

**Program Management**
- Data integrity issues
- Workflow disruptions
- Changes to system are not managed
- System is not implemented on time or on budget
- Ineffective or inadequate training of physicians and clinicians or front line

**RISK EXAMPLES**

**Patient Care/Experience:** Negative clinical outcomes, sentinel/reportable events, and patient dissatisfaction

**Economic Risk:** Cash flow declines, gross and net receivables increases, increase in DNFB days and amounts, regulatory billing noncompliance (i.e. fines and penalties), increase in charity care, contractual allowances, and bad debt expense

**Financial Statement Risk:** EHR sub-ledgers not reconciling to G/L, treasury clearing accounts not reconciled or reconciled with significant balances, unusual contractual allowance and charity/bad debt fluctuations, and negative audit opinion due to deficient controls impacting bond rating
And What Can Be Done to Prevent it...

To mitigate risk, a risk assurance focused project team will assist the organization with oversight activities to include, but not limited to:

- End-to-end Process, Risk, and Control workflow design/assessment and recommendations
- Assessment of Governance and Project Management
- Control testing and remediation, with resiliency planning and validation
- Key regulatory compliance controls integration
- Key clinical care and patient safety controls integration
- Technology Assurance (e.g. change control and application access controls assessment )
- External and internal reporting process assessments of interfaces from EHR
- Financial process and related controls testing of design and effectiveness for those processes impacted from the EHR implementation (e.g. Revenue, A/R and Treasury)
- Subsequent go-live implementation reviews and legacy system(s) cutover
# Engaging professional services: different models at different stages

<table>
<thead>
<tr>
<th>Three Types of Service</th>
<th>Before Selection</th>
<th>During implementation</th>
<th>After Go Live</th>
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</thead>
<tbody>
<tr>
<td><strong>Implementation</strong></td>
<td>Selection &amp; TCO</td>
<td>Staff augmentation</td>
<td></td>
</tr>
<tr>
<td>Typically staff augmentation providing additional staff to support implementation and configuration</td>
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</tr>
<tr>
<td><strong>Transformation</strong></td>
<td>Value proposition and alignment</td>
<td>Support transformation</td>
<td>Transition</td>
</tr>
<tr>
<td>Senior level with expertise in EHR and Clinical Transformation help in aligning transformation and EHR implementation</td>
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<tr>
<td><strong>Risk Assurance</strong></td>
<td>Develop baseline assessment</td>
<td>Test and assure good controls</td>
<td>Assure good transition</td>
</tr>
<tr>
<td>Mostly focusing on revenue cycle, financial controls, research compliance</td>
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Engaging professional services

Value is generated by coupling care delivery transformation with technology implementations to create a sustainable future operating model.

- Aligned IT Strategy
- System Selection
- Implementation Planning
- Readiness Assessment
- Total Cost of Ownership
- Project Management
- Interim Management
- Application Expertise
- Training Strategy
- Virtual Testing Center
- Standardization
- Evidence based practice
- Clinical Documentation
- Process Redesign
- Revenue Cycle
- System Optimization
- Benefits Realization
- Adoption
- Clinical Informatics
- In Flight Health Check
- Risk & Controls Audit
- Regulatory Compliance
- Data Integrity
- Continuous Improvement
Some are using risk based models with professional services

Develop component of @Risk based on value proposition and organizational readiness

<table>
<thead>
<tr>
<th>Milestone</th>
<th>System</th>
<th>Transform</th>
<th>Outcomes</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>25%</td>
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<td>40%</td>
<td>60%</td>
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Key takeaways

**Dos**

01. Focus on a value proposition before starting an EHR program

02. Assign a clinical executive to own the value based EHR program

03. Look at internal controls right at the beginning

04. Partner with trusted advisors who focus on transformation, not implementation

**Don’ts**

01. Forget to understand what value drivers are behind the EHR program, e.g., service lines

02. Underestimate the important of transformation

03. Approach EHR as a technology play

04. Forget to drive clinical ownership of value drivers