Fundamentals for Quality IT to Drive Success with Value-based and Risk-bearing Business Models

September 2016
Introductions and Background

- Karen Burton, Tony Merlo
- Logicalis and Agile Edge partnership
- What brought us here today…
Today’s Presentation

Two “Quality IT” initiatives for Health Systems – for success with value-based, risk-taking business models

- Lead your organization in imbedding world-class performance management into the corporate culture
- Drive IT systems design and management based on the fundamental needs of customers
First, some thoughts about what is “Quality IT”

“Quality” is a measure of the extent to which expectations are met or exceeded in terms of either the specified elements of an experience or key desired outcomes.
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From a business perspective, quality is clearly measured from the subjective and objective perspectives of the customer – their needs and interests and their standards.

“Quality IT” requires understanding and helping set the strategic business agenda of both internal and external customers – including setting appropriate desired outcomes and standards – and contributing substantially to fulfilling that agenda.
Next, some context for “Quality IT”: It gets us half the way home... and is half of today’s message

Let’s start with a story we all know...
There are leadership challenges and opportunities for Healthcare Organizations across multiple dimensions

The potential dimensions of Healthcare Organizations as “Population Health Managers”

1. Providers with an evolving array of revenue models
2. Managers of premium-dollar risk for individuals in communities
3. Self-insured employers
Complex consumer characteristics and gaps in accessing resources are driving ability to manage episodes of care

Before...

• Unmanaged chronic conditions and behavioral issues
• Insufficient access to / use of care
• Limited control over practice patterns
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- Insufficient access to / use of care
- Limited control over practice patterns

During...
- Complex cases requiring care beyond primary diagnoses
- Limited control over MD practice patterns

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- Limited control over practice patterns

During...
- Complex cases requiring care beyond primary diagnoses
- Limited control over MD practice patterns

After...
- Non-compliance with post-discharge care plans
- Complications
- Insufficient continuity, scope and timeliness of care
There is also potentially a very significant cascading impact of employee poor health and healthcare

Inadequate personal health management
Medical and pharmacy claims
STD, LTD and FMLA claims
Workers compensation claims
“Presenteeism” related to managing health issues
There is also potentially a very significant cascading impact of employee poor health and healthcare

- Inadequate personal health management
- Medical and pharmacy claims
- STD, LTD and FMLA claims
- Workers compensation claims
- “Presenteeism” related to managing health issues

- Excessive, unbudgeted absences
- Overstaffing levels and overtime paid
- Replacement labor time, rates, and experience level
- Overhead to manage unscheduled or unbudgeted absenteeism
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- Workplace safety declines
- Cost of capacity increases
- Capacity utilization and productivity rates decline
- Production and service quality and timeliness declines
- Organization risk increases
Defining “Population Health Management” – Examples
Defining “Population Health Management” – Recommended

“On-going and evolving strategies to deploy all available scarce resources and tools as best as possible to improve individual well-being and increase personal health mastery – to reduce the need for, and unnecessary use of, the healthcare system and to reduce the total burden of poor health on society.”
“PHM” Opportunity: On most measures there is likely a 15+% problem requiring a 15+% solution

Do you mind the performance gap?

- Healthcare cost per person
- Lost work days per employee
- Admissions and ER visits per 1,000
- Readmissions rates
- Cost per episode of care delivered
- Health status measures
- Clinical quality
- Consumer satisfaction
- Asset turnover and ROA
“PHM” Scope: A comprehensive approach is required for fully closing the gaps

<table>
<thead>
<tr>
<th>“Supply-Side” Initiatives (Providers)</th>
<th>“Demand-Side” Initiatives (Consumers)</th>
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<tbody>
<tr>
<td>Service Line Microeconomics</td>
<td>Informed Decision-Making: right care from right provider</td>
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<td>Continuous Improvement</td>
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<td>Practice Patterns</td>
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<td>Utilization Management</td>
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<td>Continuity of Care Models</td>
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<td><strong>Reduce Unit Price</strong></td>
<td><strong>Reduce Unit Volume</strong></td>
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<td>Reduction of prices</td>
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<td><strong>Condition Management</strong></td>
<td><strong>Healthy Habits</strong></td>
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“PHM” Perspective: Addressing individual well-being to achieve a finite set of desired outcomes

Source: CDC
“PHM” Ultimate Mission: Facilitating human behavior change to have a positive impact on those outcomes
"PHM" Problem-solving approach: Working in multi-disciplinary teams with new "paradigms" and protocols

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<thead>
<tr>
<th>Disciplines</th>
<th>Stakeholders</th>
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<tr>
<td>- Medicine</td>
<td>- Government Agencies</td>
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<td>- Return to Action</td>
<td>- NGOs</td>
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<td>- Behavioral Health</td>
<td>- Academic Institutions</td>
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<td>- Social Sciences</td>
<td>- Healthcare Service Organizations</td>
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<td>- Neurosciences</td>
<td>- Employers and Unions</td>
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<tr>
<td>- Behavioral Economics</td>
<td>- Community Service Organizations</td>
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<tr>
<td>- Consumer Marketing</td>
<td>- Retailers</td>
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<td>- Strategy Development</td>
<td>- Religious Institutions</td>
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Two initiatives for Health Systems – that can pay for themselves in less than a year

As an employer, imbed improvement of health, well-being and productivity into the organizational culture

As a provider, build and operate community-based “collaborative care” service delivery and business models
15% solution for employers can translate into a significant impact on operating margins

Illustrative

<table>
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<th>Percentage of Revenue</th>
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<td>Typical Hospital Employer</td>
</tr>
<tr>
<td>&quot;Best Practices&quot; Employer</td>
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- Indirect Costs of Excessive ST Disability Days
- Indirect Costs of Excessive Absences
- Direct ST Disability Costs
- Direct Healthcare Costs
COLLABORATIVE CARE SERVICES (CCS) MODEL

Health System CCS Hub
- Diagnostics
- Care Coordination
- Condition Management
- Systems Management
- 24-hour Hotline

Staff: Administrators
42 Nurse Care Managers
Social Workers
System Managers

System Hospital
CCS Discharge Management Nurse

Mobile Health Professionals

Households
Nursing Home

Care Coordination Team
- Specialists
- Community Health Services
- Social Support Services
- Care Management Nurses

Physician Practice #1
2 CCS nurse coordinators

Physician Practice #2
2 CCS nurse coordinators

Physician Practice #3
2 CCS nurse coordinators

Physician Practice #4
2 CCS nurse coordinators

Physician Practice #5
2 CCS nurse coordinators

Physician Practice #6
2 CCS nurse coordinators

7,200 Lives Served in Year One
Expected near-term benefits of implementing the CCS Model – new revenue and ability to mitigate today’s risks

- More effective discharge planning and extended follow-up
- More rapid discharge and increased share of DRG payments
- Re-deploy inpatient and ER capacity with value-creating services
- Wide range of new revenue-generating opportunities
- Effective use of specialty services and seamless collaboration
Two “Quality IT” initiatives for Health Systems – success for value-based, risk-taking business models

Lead your organization in imbedding world-class *performance management* into its corporate culture.

Drive IT systems design and management based on *fundamental needs* of internal and external customers.
Elements of a Performance Management System

- Set appropriate metrics and ambitions
- Take a systemic problem solving approach
- Create shared understanding of “anatomies”
- Have efficient and timely access to all relevant data
Aligning Performance Goals with Desirable Organizational Change – Challenge to be “World Class”

**Current State**
- Redefining and Improving Results On Performance Metrics
- Managing risk will become a means of competitive differentiation...
- ...Implementing new business models will require innovating to manage “demand side”...
- ...Requiring changes to “how we do things”

**Strategy**

**Tactics**

**Culture**

**Alignment**
- Aligning performance improvement goals with interests and abilities to change “paradigms”
Anatomy Model Example: Employee Health and Productivity

**Fundamentals of PHM**
- PHM Organization’s Plan / Benefits Design and Management
- PHM’s Leaders’ Ownership, Commitment and Support
- PHM’s Communications Scope, Scale and Effectiveness
- PHM’s Managers’ and Staff’s Ownership, Effectiveness, and Efficiency

**Primary Drivers of Outcomes**

**Supply Side: Providers**
- Volume Cyclicality Management
- Skill Mix and Span of Control Optimization
- Staff Competencies Development
- PHM’s Quality and Timing of Identification and Outreach (Segmentation)

**Demand Side: Individuals’**
- Quality of Tools and Resources
- Cost Per Unit of Capacity
- Readiness for Personal Health Leadership (Attitudes, Beliefs, Knowledge, Skills, Motivations)
- Quality of Personal Health Risk Management (preventive care and healthy living habits)

**Secondary Outcome Measures**
- Quality of Personal Symptoms Management
- Level of Access to and Support from Resources, Tools and Incentives
- Quality of Personal Condition and Complex Care Management
- Use of and Benefit from Resources and Participation in Programs

**Primary Outcomes Measures**
- Healthcare Cost Trend*
- Other Costs of Poor Health and Poor Healthcare
- Member Engagement, Satisfaction and Retention*

**Primary Outcomes Measures**
- Healthcare System Utilization Rates (e.g., Admissions per 1000)
- Care Management and Care Delivery Service Quality
- Healthcare System Unit Prices (by type of place and specific provider)

**Secondary Outcome Measures**
- Demand-Side: Health Status (e.g., biometrics)
- Supply-Side: Practice Patterns + Skill Mix Availability
- Demand-Side: Types of Life Events and Circumstances
- Supply-Side: Efficiency and Effectiveness (by place and specific provider)
Anatomy Model Example: Drivers of Community Health

Figure 11. Summary Diagram for Module 3 (Integrating Care and Improving Health)
Assumed Analytic Transformation Approach

Infrastructure

Analytics

Central Repository

Integration
Laws of Performance Management Analytics

Be Comprehensive

Look Don’t Touch

Be Timely
The New Objective: Analytics through access, not integration

Direct Unification of Your Sources

Your Existing Investments and Skills (A)

Analytics
Governance
Expertise

All Your Data Sources (B)

Structured
Semi-Structured
Big Data
Focus on Customers’ *Fundamental* Needs: It’s not what we make, its what we help others achieve

*Was once abundantly made...*  
Kodak cameras  
Swatch watches  
DEC minicomputers  
Sony Compact Disk Players

*...To satisfy long-standing needs...*  
Capture images  
Tell time  
Manage enterprise data  
Listen to music

*...No longer is!*
Focus on Customers’ *Fundamental* Needs: Distinguish between products and customer requirements

<table>
<thead>
<tr>
<th>What are sold as “solutions”...</th>
<th>...To satisfy long-standing needs...</th>
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<tbody>
<tr>
<td>EMR / EHR systems</td>
<td>An enterprise “system of record”</td>
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<tr>
<td>Case Management systems</td>
<td>Individual health risk-management</td>
</tr>
<tr>
<td>Data Warehouses</td>
<td>Comprehensive access to information</td>
</tr>
<tr>
<td>Patient Portals</td>
<td>Consumer relationship management</td>
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...*Really aren’t...they’re products*
CCS Delivery Model – Functions performed at the Hub and in the field are important to understand..

**Collaborative Care Management Functions**

- **Initial Assessments and Access to Services**
  - Clinical factors
  - Psycho-social factors
  - Activities of daily living
  - Readiness for change
  - Enrollment for services

- **Comprehensive Diagnostics**
  - Initial patient visit
  - Follow-up visits
  - (E.g., CCA, Fall Prevention, Nerve Conductor, PVR, EKG, Bone Density)

- **Integrated Care Management Plan Development**
  - Annual Diagnostic Review
  - Standards of care
  - Clinical care coordination
  - Medication therapy
  - Home Health Care
  - Home Monitoring
  - Social Support Services
  - Psych Counseling
  - Disease Management Education and Support

- **Team Monitoring / Implementation of Plans**
  - Bi-weekly
  - Monthly
  - Quarterly

- **Protocols Management**
  - Analysis of plan changes, deviations, refinements, cost, best practice designation

- **Mobile and Home-based Services**
  - Remote Monitoring, Care Management Assessments and Coaching, Video Consults, Mobile Healthcare, Hotline

- **Hospital Discharge Management**

- **Billable Hub-based Activities**
  - Scheduled
  - Unscheduled
  - (E.g., Diabetes Boot Camp and CKD Coordination)

- **Referrals Management**

- **Selection, Enrollment and Orientation of Individuals**
  - At Facilities
  - At MD Offices
  - At Home

- **Documentation, Billing and Regulatory Record-keeping**

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…but “Quality IT” system design and implementation requires focus on *Fundamental* Needs

*Fundamentals of Collaborative Care Management*

- Consumer relationship management
- Personal health mastery
- Contextual engagement and response
- Continuous performance improvement
- “Agile” delivery system management
- Collaborative care-team management
Focus on Customers’ *Fundamental* Needs: Design and build with rules-based platforms, not products.

![Agile Care Hub diagram](image)

- **Agile Care Coordination**
  - Care Plans
  - Communications Hub
  - Health Actions

- **Data Store**
  - Integration Engine

- **Agile Care Connect**
  - Biometric Devices
  - Tablets
  - Mobile App

- **Agile Care Remote Care Portal**
  - Other Care Systems
  - Vendors
  - Providers

- **External Data**
  - Data Gathering
  - Normalization
  - ETL
  - Non-Invasive Gathering

- **CCS Health Hub System of Record**
  - Info Queries
  - Relationships
  - Communication Types

- **PCP View / Instance System of Record**
  - Info Queries
  - Relationships
  - Communication Types

- **Administrative Systems**
  - HR / Payroll
  - Performance Mgt.
  - Finance and Cost Reconciliation

- **Protocol Development**
  - Regulatory / External Reporting
  - Performance Management

- **Analysis Tools**
  - Prescriptive Analytics
  - Predictive Analytics

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