Leveraging Patient Access as a Catalyst for Comprehensive Redesign & Change Management

Co-Presented by: Denise Cuddeback, Vice President, Medical Group, Carolinas HealthCare System

Kyle D. Swarts, Vice President, Culbert Healthcare Solutions
Presentation Objectives – Key Take-Aways

• Identify how to positively impact a large ambulatory operation through redesigned of people, processes and technology that unify the patient experience and, in turn, the enterprise

• Describe the importance of engaging multi-disciplinary teams and front-line providers and teammates to understand current processes, and design the desired future state for improved cost, quality, and experience

• Understand how a Patient Access & Revenue Cycle optimization effort was a catalyst for a comprehensive, workflow redesign journey across the Medical Group for Carolinas HealthCare System (CHS)...

• Understand how CHS’s Care Model Redesign has evolved to blur the traditional lines between revenue cycle and clinical operations through standardization and skill optimization and impacted bottom line results
Who is Carolinas Healthcare System

Carolinas HealthCare System has a unique story to share. Operating as a fully integrated system and connecting and transforming care delivery throughout the Carolinas, our overarching goal is to provide seamless access to coordinated, high quality healthcare – and provide that care closer to where our patients live.

With 42 hospitals and 900+ care locations, the depth and breadth of services results in a full continuum of integrated care including:

- Prevention and general wellness
- Primary care at more than 180 locations
- Specialty care via several nationally recognized service lines
- Critical care with one of the largest virtual (e-ICU) programs in the nation
- Continuing care including home health, skilled nursing, hospice, palliative care centers, inpatient/outpatient rehab, and long-term acute care hospital
Carolina Healthcare System
Patient Access, Revenue Cycle and Care Model Re-design Journey

CHS Initiatives

- Revenue Cycle Assessment
- First CPOE Go-Live
- “Patient First” Primary Care Initiative Launch
- Revenue Cycle Vendor Selection
- Epic Decision
- Specialty Care Model Launch
- Primary Care- Care Model Redesign

Market Forces

- ICD-10
- Obamacare / PPACA
- PCMH, MU, PQRS. Value Based Purchasing
- Payment Reform, Bundled Payments,
- ACO’s, Population Health Management, Risk Based Contracting
Market Forces

Disruptors
Narrow Networks
ACO Formations
CMS Readmission Penalties
CMS ACO & Primary Care pilots
Bundled Payments
Public Quality/Cost Reporting
Tiering

BCBSSC paying for PCMH certification
Consumer Directed Health Plans
Retail Clinics
Employer based Clinics
PURPOSE OF ENGAGEMENT

• Concern about impact of ObamaCare
  – Self Pay, Consumer Directed Health Plans, Newly Insured
  – Payment Reform, Shift from Volume to Value

• Preparing organization to embrace “market forces” and align internal initiatives to support a future state model
  – People, Process, Technology
  – Align priorities of front and back-end
  – Sequence activities/projects
  – Determine resource requirements (Operations, IT, Leadership)
  – Identify Gaps & Implement

• Enhance Patient Experience – “Patient First”
  – Centralization, Patient Education
Foundation for Change – Key Components

• Move as many revenue cycle functions as possible from back end of process to front end.

• Centralize pre-visit processes of scheduling, pre-registration and insurance verification
  – Patient Access Services

• Patient education on insurance benefits and financial responsibility

• Patient self registration and point of service payment of patient responsibility

• Charges automatically derived from provider documentation
Centralized Revenue Cycle

- **Scheduling**
  - Insurance Verification
  - Patient Financial Education
  - Edit and Denial Reduction
  - Patient-centric focus to practice

- **Insurance concepts**
  - Process-focused training
  - Web-based training

- **Scheduling & Pre-registration**

- **Metrics and Standards**
  - Practice scorecard
  - Standardize processes
  - Data Analysis

- **Training**

- **Practice Performance Improvement**
  - Trend analysis
  - Root Cause analysis and resolution
  - Policies and Procedures
The Problem
Size and Scale

1400+ Physicians
& ACPs

350+ locations

1,230,000 Unique Patients

3.4 million encounters

12 million phone calls

Pediatrics
Medical Specialty
Family Medicine
Internal Medicine
Surgery
Cardiology
OB/GYN

AMIGA
2015 Annual Conference
Patient First: Concept to Implementation

Approximately 100 clinical & administrative leaders participated in the initial planning phase of the Patient First Primary Care initiative (Q1-Q2 2013). This group articulated a bold vision for the future of Primary Care at Carolinas HealthCare System, in which Primary Care, as a unified service line, will be the integrator of care throughout the system. Workgroups designed a team-based Care Model that reflects the shift to value-based care; emphasizing quality, outcomes and patient engagement.
Patient First: Clinical Care Pillars

Convenient Access
- Centralized scheduling
- Broader incorporation of ACPs
- Access not limited to appointment with a physician but rather includes new kinds of visits – e-visits, telephone visits, virtual medicine
- Schedules with open (same day) access
- Payer agnostic

Value-laden Visit
- New Care Team model with each team member working at top of skill level
- Leveraged physician focusing on care
- Standardized workflows and roles
- Working on health maintenance at each visit
- Provide leverage for physicians (i.e. flow manager)

Customized Care Coordination
- Integration of care and case management
- Integration of big analytics to identify high need patients
- Primary care serving as integrator function
- Behavioral health

Reliable Clinical Care
- Standardization of high value care across the system
- System of high reliability care
- Easy access to evidence-based medicine – algorithms embedded in practice and EMR
- Timely access to performance information
- Non-punitive monitoring of performance
TPS
Operational Excellence
Best Quality - Lowest Cost - Shortest Lead Time
Customer Focus - Empowered Employees - High Morale

Just In Time
- Takt Time
- Pull System
- One Piece Flow
- Quick Changeover

Visual Management

Built In Quality (Jidoka)
- Error Proofing (Pokayoke)
- Automatic Stops
- 5 Whys
- Person-Machine Separation
- In-Station Quality Control

Suggestion System

The Rooms of the house

Operational Stability (Heijunka)
Standard Work
Kaizen

Source: http://humanisian.blogspot.com/2006/01/tps-house.html
Our Current Process Value Stream Map

.15 % Rolled Thru-put Yield

6% Value Add Activity
Provider/CA Current State Tasking & TAKT

Data from observations for 3 practices to create sample data shown

<table>
<thead>
<tr>
<th>Provider</th>
<th>CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obtain form, call Patient</td>
<td>0 47</td>
</tr>
<tr>
<td>Check Wt</td>
<td>0 10.5</td>
</tr>
<tr>
<td>Check Vitals</td>
<td>0 103</td>
</tr>
<tr>
<td>Enter Visit Info in EMR</td>
<td>0 33</td>
</tr>
<tr>
<td>Enter Vitals in EMR</td>
<td>0 28</td>
</tr>
<tr>
<td>Review AMB Allergy &amp; Med/Rec</td>
<td>0 56</td>
</tr>
<tr>
<td>Review Social History</td>
<td>0 11</td>
</tr>
<tr>
<td>Verify Patient Pharmacy Info</td>
<td>0 14</td>
</tr>
<tr>
<td>Review Health Maint</td>
<td>0 26</td>
</tr>
<tr>
<td>Print PCS &amp; Health Maint Form</td>
<td>0 31.5</td>
</tr>
<tr>
<td>Order Injections, EKG’s, Mgt of In-Box…</td>
<td>0 360</td>
</tr>
<tr>
<td>Log In</td>
<td>10 0</td>
</tr>
<tr>
<td>Notes and Document Review</td>
<td>53 0</td>
</tr>
<tr>
<td>Greet and Interview PT</td>
<td>107 0</td>
</tr>
<tr>
<td>PT Exam</td>
<td>171.5 0</td>
</tr>
<tr>
<td>Review and Reconcile Meds</td>
<td>90 0</td>
</tr>
<tr>
<td>Medical decision making/ Dx</td>
<td>73 0</td>
</tr>
<tr>
<td>Satisfy HM alerts</td>
<td>46 0</td>
</tr>
<tr>
<td>Problem List Update</td>
<td>23 0</td>
</tr>
<tr>
<td>Enter Dx</td>
<td>52 0</td>
</tr>
<tr>
<td>E &amp; M</td>
<td>29 0</td>
</tr>
<tr>
<td>Follow Up Appt</td>
<td>48 0</td>
</tr>
<tr>
<td>Order Labs</td>
<td>27 0</td>
</tr>
<tr>
<td>Order Consults</td>
<td>22 0</td>
</tr>
<tr>
<td>Order Rads</td>
<td>30 0</td>
</tr>
<tr>
<td>Order Procedures</td>
<td>62 0</td>
</tr>
<tr>
<td>Order Meds</td>
<td>36 0</td>
</tr>
<tr>
<td>Summary/Shared Decision Making/?’s</td>
<td>62 0</td>
</tr>
<tr>
<td>PT Education Matl’s</td>
<td>8 0</td>
</tr>
<tr>
<td>Complete Forms</td>
<td>79 0</td>
</tr>
<tr>
<td>Document Visit</td>
<td>138 0</td>
</tr>
</tbody>
</table>

Sample Size: n=59 n=65

Cycle Time is greater than Takt Time

3 Options:
1. Change Takt
   a. Increase Available Time
   b. Decrease visits
2. Redistribute Tasks to level load
3. Process improvement to gain efficiency

Takt Time = 962 Sec (16.03 mins)

Cycle Time in Seconds: 1166.5 720
Cycle Time in Minutes: 19.4 12
Redesign Equation

‘Patients First’ Primary Care “Care Pillars”

- Conventional Access
  - Broader incorporation of ACUs
  - New types of encounters: e-visits, telephone visits, virtual medicine
  - Schedules with open (same-day) access

- Value- laden Encounter
  - New Care Team model with each team member working at top of skill level
  - Standardized workflows and roles
  - Provide leverage for physicians (i.e., flow managers)

- Customized Coordinated Care
  - Integration of care and case management
  - Integration of big analytics to identify high need patients
  - Integration of Behavioral health

- Reliable Clinical Care
  - Easy access to evidence-based medicine in practice and EMR
  - Timely access to performance information
  - Non-punitive monitoring of performance

“Medical Group Current State”

99.85% Process Failure Rate

6% Active Patient Participation

“PCMH”

“Provider Task Fatigue”

AMIGA 2015 Annual Conference
The New Model- Design & Standardize

<table>
<thead>
<tr>
<th>Beam Rd</th>
<th>Elizabeth Rock Hill</th>
<th>Lincoln MMG</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>MOB Material Management RIE5</td>
<td>MOB Material Management RIE5</td>
<td>MOB Material Management RIE5</td>
</tr>
<tr>
<td>X</td>
<td>Care Team Design 3P</td>
<td>Care Team Design 3P</td>
<td>Care Team Design 3P</td>
</tr>
<tr>
<td></td>
<td>Live Answer/Messaging</td>
<td>Live Answer/Messaging</td>
<td>Live Answer/Messaging</td>
</tr>
<tr>
<td></td>
<td>Exam Room 5S</td>
<td>Exam Room 5S</td>
<td>Exam Room 5S</td>
</tr>
<tr>
<td></td>
<td>Panel Management</td>
<td>Panel Management</td>
<td>Panel Management</td>
</tr>
<tr>
<td></td>
<td>Registration Forms 5S</td>
<td>Registration Forms 5S</td>
<td>Registration Forms 5S</td>
</tr>
<tr>
<td></td>
<td>Centralized Pre-Reg</td>
<td>Centralized Pre-Reg</td>
<td>Centralized Pre-Reg</td>
</tr>
<tr>
<td></td>
<td>Emergent Walk In</td>
<td>Emergent Walk In</td>
<td>Emergent Walk In</td>
</tr>
<tr>
<td></td>
<td>Patient Self-Rooming</td>
<td>Patient Self-Rooming</td>
<td>Patient Self-Rooming</td>
</tr>
<tr>
<td></td>
<td>Check-in SW</td>
<td>Check-in SW</td>
<td>Check-in SW</td>
</tr>
<tr>
<td></td>
<td>Check-out SW</td>
<td>Check-out SW</td>
<td>Check-out SW</td>
</tr>
<tr>
<td></td>
<td>Referral Process SW</td>
<td>Referral Process SW</td>
<td>Referral Process SW</td>
</tr>
<tr>
<td></td>
<td>Exam Room 5S</td>
<td>Exam Room 5S</td>
<td>Exam Room 5S</td>
</tr>
<tr>
<td></td>
<td>Protocols, Standing Orders</td>
<td>Protocols, Standing Orders</td>
<td>Protocols, Standing Orders</td>
</tr>
<tr>
<td></td>
<td>POC Testing</td>
<td>POC Testing</td>
<td>POC Testing</td>
</tr>
<tr>
<td></td>
<td>Flow Mgr, Clinical Assistant &amp; Provider SW</td>
<td>Flow Mgr, Clinical Assistant &amp; Provider SW</td>
<td>Flow Mgr, Clinical Assistant &amp; Provider SW</td>
</tr>
<tr>
<td></td>
<td>Additional Lab Testing</td>
<td>Additional Lab Testing</td>
<td>Additional Lab Testing</td>
</tr>
<tr>
<td></td>
<td>Lab SW</td>
<td>Lab SW</td>
<td>Lab SW</td>
</tr>
<tr>
<td></td>
<td>Charge Entry (ref.: WTF)</td>
<td>Charge Entry (ref.: WTF)</td>
<td>Charge Entry (ref.: WTF)</td>
</tr>
<tr>
<td></td>
<td>Referral Process SW</td>
<td>Referral Process SW</td>
<td>Referral Process SW</td>
</tr>
<tr>
<td></td>
<td>Transition of Care Mgt Protocol</td>
<td>Transition of Care Mgt Protocol</td>
<td>Transition of Care Mgt Protocol</td>
</tr>
<tr>
<td></td>
<td>Pre-visit Planning &amp; Daily Clinical Huddle SW</td>
<td>Pre-visit Planning &amp; Daily Clinical Huddle SW</td>
<td>Pre-visit Planning &amp; Daily Clinical Huddle SW</td>
</tr>
<tr>
<td></td>
<td>CDM Registry Mgmt/Care Gaps</td>
<td>CDM Registry Mgmt/Care Gaps</td>
<td>CDM Registry Mgmt/Care Gaps</td>
</tr>
<tr>
<td></td>
<td>CDM Nurse Protocols</td>
<td>CDM Nurse Protocols</td>
<td>CDM Nurse Protocols</td>
</tr>
</tbody>
</table>

27 RIE’s /Projects
Completed since March
VSM (Current State Process Mapping)

Non-Clinical
3. Live Answer/Messaging
5. Panel Management
6. Registration Forms
7. Centralized Pre-Registration
9. Patient Self-Rooming
10. Check-in SW
11. Check-out SW
19. Canopy & Charge Reconciliation SW
20. Referral Process

Clinical Care Team
2. Care Team Design 3P
4., 12. & 21. Exam Room 5S
13. Protocols, Standing Orders for CA
24. Daily Clinical Huddle
15. Point of Care Testing
14. Lab Tracking
16. CA, Flow Mgr, Provider SW
25. CDM Registry Mgt/Care Gaps
26. CDM Nurse Protocols

Lab
14. Lab Tracking – see Care Team
15. In-Room Clinical Testing – see Care Team
17. Additional Lab Testing
18. Lab SW
# Family Medicine Pilot Results

<table>
<thead>
<tr>
<th>Metric</th>
<th>Description</th>
<th>Baseline</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Maintenance Task Completion</td>
<td>% of Current Alerts Satisfied</td>
<td>50%</td>
<td>84%</td>
</tr>
<tr>
<td>Patient Thru-put</td>
<td>Avg. # of Patient Office Visits</td>
<td>25</td>
<td>33</td>
</tr>
<tr>
<td>Patient Satisfaction</td>
<td>Likely To Recommend</td>
<td>80%</td>
<td>95%</td>
</tr>
<tr>
<td>Cycle Time</td>
<td>Minutes (IDX)</td>
<td>59:00</td>
<td>52:00</td>
</tr>
<tr>
<td>Provider Workday</td>
<td>Hours</td>
<td>10:00</td>
<td>9:00</td>
</tr>
<tr>
<td>POCT Cycle Time</td>
<td>From Order to Result Minutes</td>
<td>13:06</td>
<td>05:12</td>
</tr>
<tr>
<td>Patient Response Time for Message Call Backs</td>
<td>Time to Answer Messages Hours</td>
<td>4:00:00</td>
<td>0:30:00</td>
</tr>
</tbody>
</table>
400+ Front Line Teammates & Providers Representing 132 Primary Care Locations
Care Model Redesign “Standard Work” Components

The objective of each component/phase of the Care Model Redesign is to reduce variation, optimize performance, and improve the experience.

- Access, Panel Management
- Management for Daily Improvements
- Inventory/Supply Management
- Call Management, Scheduling
- Revenue Cycle, Referral Management
- Rooming, Exam

Pre-Assessment

Pre-assessment criteria has been developed for each “change module”

Metrics & Tracking

Ability to measure performance is critical for success

“Standardization” (required for improvement)
## Access & Panel Management

### Change Module 2

### Overview

- Increase “access/capacity” through standardization of clinical hours and scheduling accomplished through provider panel and appointment template redesign

### Dependencies

- Organizational readiness to support standardization
- Physician readiness for change
- Patient demand/Marketing
- Business Intelligence to monitor performance

### Metrics

- Provider Patient contact hours
- Provider outpatient days
- 3rd available appointment (by appointment type)
- Patient Sat: Ability to recommend
- Appointment lag
- High cost utilization (ED/Urgent Care)
- Panel Size
- # Visit types

### Provider Agreements

- Adoption of access and template standards
- Provider visit “cadence” appointment times
- Preventative/Same day %
- Regionalized template redesign & build/support
- Payor agnostic

### Improvement Elements

- Volume growth based on increased “supply” with correlating “demand”
  - Same day Access
  - No Show Reduction
  - Increased Prevention (Reminded Care)
  - Ability to Market
### Overview
- MDI is a practice wide engagement and problem solving tool that facilitates hardwiring of Standard Work and sustained improvements.
- 5S is an event focused on management and standardization of inventory & supplies: “What you need, where you need, and when you need.
- “Sort, Set, Shine, Standardize, Sustain

### Dependencies
- Organizational readiness and support for inventory/supply standardization
- Site based Medical Director leadership
- Local admin/leader support participation
- MDI certification for select practice leaders to support market
- Business Intelligence to monitor performance daily

### Metrics
- 80% MDI compliance score
- 5S Audit score
- Inventory turns
- % Standard SKU deployment

### Improvement Elements
- 5S Pilots realized one time expense improvement due to inventory/supply return (not reflected in Margin Analysis)
- Standardization of inventory/supplies will lead to reduced operational costs (not reflected in Margin analysis)

### Provider Agreements
- Provider and leader engagement
- All provider participation
- Provider Lean 101 training
- Acceptance of standard room set-up (service line)
- Acceptance of standard inventory/supplies (service line)
Overview

• Creation of a neighborhood practice operations service center
• Standardization of call management “Live Answer” and Triage teams into markets
• Demand Management Center
• Ensure accountability of Access standards.

Dependencies

• Organizational readiness to support standardization and change
• Organizational readiness to reduce workforce
• Provider readiness for standardization and change
• Practice culture to accept patients regardless of payor type
• Office space for regionalized teams
• Business Intelligence to monitor performance

Metrics

• % Calls answered live
• % Calls abandoned
• Calls per FTE/hour
• Payor distribution %
• % First call resolution
• % messages managed/resolved
• % Template utilization
• % Preventative appointments
• % Same day
• Panel ED/UC utilization
• New patient distribution
• Supply and demand by practice, market, and specialty (provider & patient)

Provider Agreements

• Adoption of access and appointment template standards
• Regionalized management/support of templates
• Regionalization of Live Answer and RN Triage staff
• Adoption and acceptance of Triage protocols by service line

Improvement Elements

• FTE Reduction
• New Patient visits volume
• Increased revenue for Trans of Care (Hospital)
• Hospital Follow-up care within 72 hours
• 50% Reduction in “Provider message management”
Regionalized Practice Operations Service Centers
Regionalized Practice Operations Center
Services Offered

- “Neighborhood” Live Answer (Scheduling and Triage)
- Appointment template support/design
- Panel Management support/design
- Registration (schedistration) and benefit determination
- Patient Portal Tasking
- Charge Capture/Edits/Coding
- Appointment Reminders (Televox)
- Referral Management - Future state

Note: Above functions currently performed in the practices
Why Regionalized Model

- Create a practice “service center” to decompress the multitude of operational functions performed at the practice site
- Ability to develop manager/leaders with focus and expertise in specific operations
- Aligns staff and expertise with provider, practice, consumer and market needs
- Aligns with Medical Group organizational structure for Market Leader Medical Director oversight (Dyad)
- Provides ability to more closely align with acute care needs
## Revenue Cycle & Referral Management
### Change Module 6

### Overview
- Standard work to optimize workflow, staff and technology
- Improve results in revenue cycle and care coordination functions to including:
  - Pre-registration (lower denials)
  - POS collections (lower bad debt)
  - Care coordination (Risk contracts)
  - Patient portal adoption

### Dependencies
- Practice culture to “collect” from patients and financial discussions
- Inability to meet financial improvement of reduced bad debt expense with increasing number of CDHPs
- Competing priorities - Encompass
- Technical “enhancements” to patient portal for optimal patient adoption/acceptance
- Time to implement
- Business Intelligence to monitor performance

### Metrics
- Referral appointments scheduled at POS
- % Community referral
- Referral and Diagnostic tracking/closure
- % Bad debt
- Budget planning utilization
- POS collections
- “Reminder appointment conversion

### Provider Agreements
- “Reminder” appointment utilization for appointments >30 days
- Patient portal communication adoption based on patient preference

### Improvement Elements
- Increased POS collections
- Decreased bad debt & collection expense
- Reduced collection expense
- Referral Tracking
- Increased Patient Portal adoption
**Overview**

- Standard work implemented to optimize provider and clinical staff skills, workflow, tasking, and technology to improve patient access, care gaps, licensure utilization, and provider fatigue
- Wave II of services for region's "Practice Operations Service Center" - Regionalized Charge capture/coding

**Dependencies**

- Organizational readiness to support provider & clinical staff Standard Work
- Organizational readiness to reduce staff (122 FTE)
- Provider acceptance and hardwiring of Standard Work
- Patient demand or manpower reduction
- Business Intelligence to monitor performance

**Metrics**

- Care Gaps closed
- Health maintenance alerts satisfied
- Provider visits/hour
- Provider cycle time
- CPOE order and charge reconciliation
- Resource versus Throughput
- Patient Satisfaction

**Provider Agreements**

- Provider to CA (clinical assistant) ratio
- "Truth in scheduling" - rooming/exam cycle times informing visit times
- CPOE Standard Work (Provider & Clinical Staff)
- Care Gap closure and health maintenance task completion
- Adoption of new staffing models (RN role)

**Improvement Elements**

- FTE reduction (Charge Entry and Coding)
- Increased ancillary revenue for appropriate care measures satisfied
- Reduced Care Gaps & improved Quality Performance
- Health Maintenance
- Meaningful Use
- Reduced calls per visit
## Future State “Rooming & Exam”

### 2:1 CA to Provider Ratio (Module 7)

<table>
<thead>
<tr>
<th>Step</th>
<th>Activity Description</th>
<th>CA Cycle Time</th>
<th>Provider Cycle Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Prepare Room for Next Patient</td>
<td>0:00:22</td>
<td>0:00:35</td>
</tr>
<tr>
<td>2</td>
<td>Obtain Routing Form and Bring Patient Back</td>
<td>0:01:00</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Walk to Scale and Check Weight</td>
<td>0:00:19</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Review Health Maintenance</td>
<td>0:00:30</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>POC, Possible Sample Collection, and Injections</td>
<td>0:00:00</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Prepare Exam</td>
<td>0:00:04</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Complete Forms</td>
<td>0:00:13</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Queue Provider Patient is Ready</td>
<td>0:02:35</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Verbally Present Patient to Provider</td>
<td>0:05:33</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Review notes and documents prior to visit</td>
<td>0:02:47</td>
<td>0:13:06</td>
</tr>
<tr>
<td>11</td>
<td>Greet and Interview pt., Agenda setting, identify and address barriers</td>
<td>0:01:38</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Patient exam</td>
<td>0:01:23</td>
<td></td>
</tr>
<tr>
<td>13.a</td>
<td>Communicate orders to Roomer (labs, consults, procedures, radi, future orders, diagnosis)</td>
<td>0:00:40</td>
<td></td>
</tr>
<tr>
<td>13.b</td>
<td>Provider log in and review meds</td>
<td>0:00:34</td>
<td></td>
</tr>
<tr>
<td>14.a</td>
<td>Medical decision making/Diagnosis</td>
<td>0:01:20</td>
<td></td>
</tr>
<tr>
<td>14.b</td>
<td>SAT Health Maintenance alerts</td>
<td>0:00:12</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Update Problem list</td>
<td>0:00:07</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Review Primary care record</td>
<td>0:00:37</td>
<td></td>
</tr>
<tr>
<td>17.a</td>
<td>State New meds</td>
<td>0:00:27</td>
<td></td>
</tr>
<tr>
<td>17.b</td>
<td>State Diagnosis</td>
<td>0:00:31</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>State E&amp;M</td>
<td>0:00:00</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>State Follow up apt</td>
<td>0:00:15</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Summarize visit and care plan, Education, Goal setting for asthma, diabetes, obese pts</td>
<td>0:00:00</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Complete forms</td>
<td>0:00:15</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Review/Edit/Endorse Proposed Orders</td>
<td>0:00:15</td>
<td></td>
</tr>
<tr>
<td>23.b</td>
<td>Review/Edit/Endorse PowerNote</td>
<td>0:01:24</td>
<td></td>
</tr>
<tr>
<td>24.b</td>
<td>Document Goal Setting, PowerNote Assessment and Plan</td>
<td>0:00:33</td>
<td></td>
</tr>
<tr>
<td>25.b</td>
<td>Provider log in and review meds</td>
<td>0:00:31</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Review patient instructions, goals, and Depart Summary</td>
<td>0:00:00</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Print Depart Summary and Discharge Patient</td>
<td>0:00:00</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Work/School Release</td>
<td>0:00:07</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Provider log in and review meds</td>
<td>0:00:30</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Provider log in and review meds</td>
<td>0:00:15</td>
<td></td>
</tr>
<tr>
<td>31.a</td>
<td>Complete PowerNote</td>
<td>0:00:00</td>
<td>0:24:33</td>
</tr>
</tbody>
</table>


- **CA Takt = 26:00**
- **Provider Takt = 13:00**
Typical Practice Implementation

Module | Implement | Standard Work
---|---|---
Access & Panel Size | 90 Days | Patient Contact Hours Per Day/Week
Management for Daily Improvement | 10 Days | Preventative & Same Day Visit
Inventory Mgmt & Medication Prep | | Live Answer & Triage
Scheduling, Revenue Cycle & Care Coordination | | Supply & Demand Planning
Rooming & Exam | 10 Days | Payor Agnostic

| Metrics & Measurement | Improve Staff Engagement |
| Culture of Accountability | |
| Medication and Vaccine Administration | Inventory & Supply |
| Patient Safety | |

| Pre-Arrival/ Check-in / Check-out | |
| Template Management | |
| Hospital Transition Appointments | |
| Referral Management | |
| Patient Portal | |

| Visit Readiness | |
| Care Gap | |
| Skill Optimization | |
| Coding & Charge Capture | |
Governance Structure

Carolina HealthCare System
CHS Medical Group Care Model Redesign Activity A3

Revised: January 23, 2015

Background
- The Primary Care setting is experiencing increased market pressure from Walmart and CVS, among others.
- To compete, CHS Medical Group Primary Care is transitioning to consumer-driven, value-based purchasing of physician services.
- In 2013, CHS Medical Group sponsored a Patient First engagement and Value Stream Map (VSM) aimed at Family and Internal Medicine and piloted at Lincoln Family Practice. Further scope definition included CPOE solutions, PCMH compliant processes, and MOB requirements.
- Seven Care Model phases (modules) were defined as follows: (1) Pre-Site Assessment, (2) Access and Template Optimization, (3) MDI, (4) SS, (5) Call Management and Triage, (6) Revenue Cycle and Care Coordination, (7) Rooming, Exam, Flow Management, Charge Capture.
- $513.3M in margin through cost savings and new revenue (less $4.8M in implementation costs) has been projected over the next four years in the following areas: (1) Access and Template Management - $20.3M, (2) Call Management and Triage - $2.9M, (3) Revenue Cycle and Referral Management - $5.2M, (4) Rooming and Exam - $22.7M.

High Level Strategy
- Develop cross-functional teams between Medical Group, Quality, PE, and Operations (“Process Owners”) to align the work activity to CHSME objectives and ensure adherence to standard work so improvements are realized over the 24 month period.
- Base clinical solutions on Computerized Physician Order Entry (CPOE) as the go forward platform.
- Implement across CHS MG Primary Care.

High Level Objectives
- Deploy standard care modules across 132 Primary Care practices beginning October 2014 through Q1 2017.
- Through pre-site assessment, identify baseline metrics, measurements, and goals at a contribution by provider, practice, market and medical group.
- Monitor results against expected improvement by provider, practice, market and medical group.

Methodology
- Establish measures of success at a practice/provider level and aggregate at a market level.
- Deploy Family Medicine Care Model for Union and Northeast regions.
- Finalize the clinical care team module (module 7) for Pediatrics, Internal Medicine, OB/GYN and deploy at Union and Northeast.
- Deploy all specialties in regionalized approach through remaining 7 regions beginning Q1 2015.

Communication Plan

<table>
<thead>
<tr>
<th>Audience / Functional Group</th>
<th>Frequency</th>
<th>Method</th>
<th>Point of Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1 - Senior Leadership</td>
<td>Biweekly</td>
<td>Live</td>
<td>Denise Cuddeback</td>
</tr>
<tr>
<td>Level 2 - Core team</td>
<td>1x/w</td>
<td>Live</td>
<td>Darren Harbst</td>
</tr>
<tr>
<td>Level 3 – Process Owners</td>
<td>1x/w</td>
<td>Live</td>
<td>Darren Harbst</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Metrics</th>
<th>Impact</th>
<th>Metric</th>
<th>Baseline</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access and Template Management</td>
<td>$20.3M</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Call Management and Triage</td>
<td>$2.9M</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue Cycle and Referral Management</td>
<td>$5.2M</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rooming and Exam (coding and charge capture)</td>
<td>$22.7M</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Org Chart

**Level 1 - Senior Leadership Committee**
- Tom Laymon, Chief Operations Executive
- Dan Wiens, SVP Primary Care
- Lisa Hebert, PA VP Quality
- Nick Laviere, Director Lean
- Dr. James McPherson, HR

**Level 2 - Core Team**
- Denise Cuddeback
- Alyson Dozier
- Jessica Baird-Wertman
- Elizabeth Handy, RN
- Operational SVP/VPs by Region
- Pam McCreary, RN

**Level 3 – Process Owners**
- Lisa Hebert, PA
- Dr. Dan Senft
- Pam McCreary, RN
- Donna Rubin - HR
- Tammy Smith - Access
- Stacy Crudele, RN
- Carolyn Collins, RN
- Kristin Metzler, RN

**Timeline**
- Union Region – Module 2 (Access and Template Optimization) through Module 7 (Rooming, Exam, Charge Capture)
- Northeast Region -Family Medicine: Module 1 (Assessment) through Module 7 (Rooming, Exam, Charge Capture)
- University – Entire Region
- Shelby, West, South Carolina, Southeast, South Charlotte, Metro – Implementation of all modules

**Action**
- Union Region – Module 2 (Access and Template Optimization)
- Northeast Region -Family Medicine: Module 1 (Assessment)
- University – Entire Region
- Shelby, West, South Carolina, Southeast, South Charlotte, Metro – Implementation of all modules

**Owner**
- Denise Cuddeback
- Denise Cuddeback
- Denise Cuddeback
- Denise Cuddeback

**Targeted Completion Date**
- March 2015
- May 2015
- November 2015
- Q3 2017
“Provider used to come in and say hello and then sit in front of the computer. I used to have to ask things twice because they were so into the computer.

Now, I feel like I got a great check-up for the 1st time with my MD in a long time!”

“I saw 23 patients (my schedule was blocked for a meeting after 3:45). All my notes and messages were done by 4:20. I had plenty of time to do excellent notes, work all the health maintenance items, and be fully present with my patients. It was like a wonderful dream come true! This has been one of the best days in my rather long career. I can now see the joy of practicing medicine returning to my colleagues at our office.”

………………….. John Vick, M.D., Medical Director, Union Family Practice

“This has just been the most positive visit I’ve had.”
Questions