Background / Current Conditions

- Medical group office visit redesign is designed to support one-piece flow for providers, including patient visits, documentation in Epic record, and patient-responsive in basket work.
- Physician employment contracts specify charting from patient encounters is to be completed within 2 days.
- Internal and external changes have caused overloading of physicians electronic in baskets; improvement work implemented in 2012.
- Provider visit lengths semi-customized to reflect provider as the pacemaker of work; based on face to face and documentation data.
- Provider workflow improvement has occurred, but still variable and generally reactive.
- Historically, full time providers have seen patients 4 days/week, but providers now often work during days off, nights, and weekends to complete non-visit work; total provider work hours uncertain.

Problem Statement

In 2011, 8.6% of approximately 446,000 medical group patient visit encounters were not completed in Epic by providers within 2 days, resulting in incomplete records causing subsequent care for patients to be less safe, delayed or lost revenue, and invalidation of a portion of at least 135 or more physician employment contracts.

Goals / Targets

- Reduce encounters NOT documented and closed within 48 hours by 50% (increasing total to 96% or greater) by December 2012, and reduce remaining defects at end of December 2012 by 50% by end December 2013 (increasing total to 98% or greater).
- Improve providers’ ability to meet TAKT for Encounter TAT and majority of provider work, by identifying, integrating, and balancing cycle time to TAKT time for all required provider work content.
- Improve by 10% manageable workload and support for health/wellness scores on Provider Opinion Survey by 2013 POS.
- Use “Just Culture” methodology for provider performance management.
Current Provider Work System

Any factor that:
- increases demand for priority 1-3 work (e.g. demand exceeding capacity, flow disruption, scheduling defects)
- creates barriers for priority 4 work (e.g. complex notes, technical problems)
- causes providers to choose to or have to stop work when only urgent work is completed (e.g. fatigue, family urgencies)
has the potential to decrease % charts completed within 48 hours.

Any attempt to prioritize chart completion, without decreasing waste in the system or otherwise decreasing the overutilization of the provider, has potential to sub-optimize performance in another area.

With each cycle in which charts are not completed within 48 hours, incremental rises occur in:
- Risk to patient
- Provider time to document
- Documentation errors
- Mental-emotional burden on provider
- Financial cost to organization
But, direct financial risk to physician causes urgency to rise, and eventually causes completion in biweekly batches for nearly all outliers.
Understanding Top Contributors

Histogram of Charts Open >48H / Provider Encounters July_Aug 2012

22 Providers accounted for 66% of the unclosed charts

Number of charts per provider open > 48 hours in July-August 2012
Cause Map

1. Providers are overutilized; they cannot recover, they cannot recover as they are overutilized, then they get fatigued.
2. Inadequate provider capacity interacts with other causes of failure and makes sustained failure more likely.
Do - Experiments/Improvement Work Through November 2012

• Leadership
  – Expectation setting
  – Visual Management

• EMR/Technology
  – Skills Optimization
  – Dragon Mobile

• Interruptions

• EMR In-basket RIE including SW

• Agenda Setting

• Provider Workflow
  – Making visual
  – Repeat “Middle flow” work
Interrelationship Digraph

Key Drivers

- Scheduling defects
- Not enough access
- Provider workflow problems
- Suboptimal visit mgmt agenda setting
- No escalation process
- Maximize work hours flexibility
- Professional duties outside of clinic
- Maximize comp on plan

In=1, Out=3
In=4, Out=3
In=6, Out=0
In=5, Out=1
In=4, Out=3
In=2, Out=3
In=1, Out=5
In=0, Out=5
Study - Results

Goals/Targets:
• Improve providers ability to meet TAKT for encounter turnaround time

<table>
<thead>
<tr>
<th>Metric</th>
<th>Baseline</th>
<th>Target</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Encounters Closed in 48 hours</td>
<td>91.4%</td>
<td>96%</td>
<td>93.5% (+24%)</td>
</tr>
<tr>
<td>Improve % Strongly Agree/Agree scores for manageable workload and support health-wellness on provider opinion survey</td>
<td>56.7%, 53.9%</td>
<td>61%, 58.5% (10% by 2013 POS)</td>
<td>60.8%, 66.0%</td>
</tr>
</tbody>
</table>

Encounters Not Closed within 48 Hours (proportion of defects)
# Study - Reflections

<table>
<thead>
<tr>
<th>What worked well:</th>
<th>What did not work well:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Provider engagement</td>
<td>• Provider total available time currently unavailable</td>
</tr>
<tr>
<td>• Data easily available</td>
<td>• No definition for quality documentation or balanced performance at provider level</td>
</tr>
<tr>
<td>• Able to cause technical changes quickly</td>
<td>• “Middle flow” improvements solved problem, but work-style and production pressures</td>
</tr>
<tr>
<td>• “Middle flow” process already existed and EMR in-basket improvement RIE was</td>
<td>drove reversal, and leadership (temporarily) allowed it</td>
</tr>
<tr>
<td>already in queue</td>
<td>• Improvements significantly influenced by performance management of 4 of 8 lowest</td>
</tr>
<tr>
<td>• Adaptation of tools to make provider work and visit flows visual</td>
<td>performing providers; 3 no longer with organization</td>
</tr>
<tr>
<td>• Learning approach with providers – Just Culture</td>
<td>• Inadequate delegation</td>
</tr>
<tr>
<td>• In room observations</td>
<td>• Scope too large given complexity of system and human factors</td>
</tr>
<tr>
<td>• Leadership support for performance management</td>
<td></td>
</tr>
<tr>
<td>• Coaching to help “see the forest for the trees”</td>
<td></td>
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</tbody>
</table>

## Key learnings:

- 100% of providers want to close their charts within 48 h
- Chart closure is a “vital sign” of each providers work system, and multiple clinic processes and human factors drive it
- Overutilization due to “overscheduling the resource” is common
- Urgency-based prioritization is constant, and closing charts always seen as less urgent than customer-facing work
- Each provider is their own value stream in current system
- Non-value added work present in the provider-patient visit
- Compensation plan is a key driver
- Division leadership has enabled this problem historically

## Would do differently:

- Avoid calling this “my project”
- Seek out barriers outside clinic more directly
- Focus on 1 call group to better understand and influence culture
- Build better guiding coalition and more leadership commitment to prioritize and help drive this
- Apply systems thinking sooner; identify and study systems that contribute to the defects
- Study providers who are performing at 100% to see what factors enable that performance
Adjust

• Remapping (3rd pass) of medical group primary care VS Q1 2013
  – True demand and CTQCs
  – Staffing to demand
  – Provider overutilization and workflow
  – Escalation process
  – Information flow
  – Population management

• Compensation Plan Redesign 2013
• Leadership Standard Work
• Lean for Physicians A3