<table>
<thead>
<tr>
<th>Agenda</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifying Practice Costs in a transformed environment</td>
</tr>
<tr>
<td>LEAN – Background/Goals</td>
</tr>
<tr>
<td>Five Principles in Problem Solving</td>
</tr>
<tr>
<td>Value of a PAR system</td>
</tr>
<tr>
<td>Next Steps</td>
</tr>
</tbody>
</table>
Costs
Understand ways to categorize and view practice costs establishing a foundation for the transformed healthcare environment.

LEAN
Articulate the Principles of LEAN and the role of organizational leadership related to LEAN methodologies.

Identify the Problem Solving Process
Identify the 5 Steps in the Problem Solving Process and goals of LEAN management.

Value of a PAR system
Determine how establishing a PAR system can benefit your practice.
Identifying practice Costs in a transformed environment
Our Transformational Point-of-View

**Clinical Maturity Level**

**CLINICAL ENTERPRISE MATURITY (CEM):** A concept unique to DHG Healthcare, the CEM is a qualitative evaluation that measures numerous characteristics associated (among other things) with the state of an organization’s physician enterprise in combination with its overall clinical integration accomplishments and planning.

**Change Management Themes:**

- **“Do More Get More”**
- **Fee for Service**
- **Volume**

**RIGHT CARE, RIGHT PLACE, RIGHT TIME**

**PEOPLE**

**COMMUNITY HEALTH MANAGEMENT**

**PROCESS**

**VALUE**

**TECHNOLOGY**

**MARKET STAGING:** An evaluation of an individual market’s level of evolution with respect to resident payment models. This concept, which DHG Healthcare has developed and applies in our business planning practice, considers evolutionary facts such as depth of non-FFS transition, level of consolidation, employer base, and similar characteristics.

**Market Stage**
Triple Aim

Manage Population Health

Reduce Per Capita Cost

Enhance the Experience of Care

Ideal Care System

Source: Don Berwick 2008
Cost Share Implications

Growth of HSA-Qualified High-Deductible Health Plan Enrollment
Covered Lives (Millions), March 2005 to January 2013

Source: America’s Health Insurance Plans

http://insurancenewsnetmagazine.com/article/a-rough-entry-into-the-world-of-high-deductible-plans-2859#.VYlo_flVhHw
Patient Costs

$1 out of every $4 comes directly from patients

Who’s doing what?

<table>
<thead>
<tr>
<th>Service</th>
<th>Not planning</th>
<th>Planning</th>
<th>Implementing</th>
<th>Implemented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit card on file</td>
<td>40%</td>
<td>18%</td>
<td>14%</td>
<td>26%</td>
</tr>
<tr>
<td>ACH payment plans (auto withdrawal from checking account)</td>
<td>62%</td>
<td>13%</td>
<td>7%</td>
<td>17%</td>
</tr>
<tr>
<td>Credit card payment plans</td>
<td>15%</td>
<td>20%</td>
<td>10%</td>
<td>52%</td>
</tr>
<tr>
<td>Virtual credit card terminal</td>
<td>40%</td>
<td>19%</td>
<td>8%</td>
<td>31%</td>
</tr>
<tr>
<td>Patient portal</td>
<td>12%</td>
<td>36%</td>
<td>14%</td>
<td>36%</td>
</tr>
<tr>
<td>Patient liability ($$) estimator</td>
<td>24%</td>
<td>30%</td>
<td>20%</td>
<td>24%</td>
</tr>
</tbody>
</table>

Source: MGMA Member Community research.
Cost Estimators - Availity

Guarantor:
John A Doe
123 Sesame Street
Somewhere, TN
(615) 321 - 4321

Patient:
Johnny L Doe
Male
Born 12/12/2000

Note:

Insurance Eligibility

United Healthcare
CoPay: $100
View Medical Necessity

Blue Cross Blue Shield of TN
CoPay: $25
Additional Info Needed

Encounter Type: OPS

Estimated Charge: $300 (Max Allowed Reached)

<table>
<thead>
<tr>
<th>Qty</th>
<th>Code</th>
<th>Description</th>
<th>Charge</th>
<th>Allowed</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>85025</td>
<td>Complete Blood Count (CBC)</td>
<td>$1000.00</td>
<td>$250.00</td>
<td>$250.00</td>
</tr>
<tr>
<td>1</td>
<td>12001</td>
<td>Simple repair of superficial wounds</td>
<td>$500.00</td>
<td>$100.00</td>
<td>$100.00</td>
</tr>
</tbody>
</table>

Add Charge Item

Estimated Patient Portion: $20.00

Total Before Discounts: $25.00
Auto-Discount: NA
Other Discount: 20% $-5.00
Total Payments: $-0.00

Enter a Payment  Print Estimate  Printable Forms

Prompt Payment  Terms  Referral  Closing

Your estimated cost of service today is $25. I can offer you a 20% prompt pay savings if you would like to pay that in full today. The amount you will owe is $20. Will that be cash, check, or credit?

Did patient agree? ☑ Yes  ☐ No
NEW MATH  VALUE = QUALITY/COST

Quality = Evidence Based Metrics

- **You**
  - Professional: $100
  - Surgery: $95
  - Facility: $200
  - Pharmacy: $25
  - Total: $420

- **Peers**
  - Professional: $95
  - Surgery: $100
  - Facility: $185
  - Pharmacy: $28
  - Total: $408

Cost = Episode of Care

- **You**
  - 100%

- **Peers**
  - 94%

\[
\frac{100\%}{94\%} = 107\%
\]

\[
\frac{103\%}{103\%} = 103\%
\]

\[
107\% / 103\% = 104\%
\]

Your Practice performs 4% better than peers.
MACRA

Ensures a 5-year period of stable, annual updates of 0.5% in order to transition to new payment system in 2019

**MIPS**

- Maximum adjustment
  +/− 4% in 2019 up to
  +/− 9% in 2022*

  - Composite Score
    - 30% Quality (e.g. PQRS)
    - 30% Resource Use
    - 15% Clinical Practice Improvement Activities
    - 25% Meaningful Use

- Additional bonuses up to
  10% for exceptional performance

* Sliding Scale assessment

**APM**

- Annual 5% Lump Sum Bonus 2019-2024

- Qualifying APM
  Certified EHR
  Payment based on quality measures
  Financial risk
  Medical Home*
  Percentage of payments

*PCMH exempted from downside risk requirement
1. Global Budget
   • Based on historical total medical expenses
   • Annual inflation for each year of the five-year contract period is defined up front and designed to continually moderate spending growth

2. Efficiency Opportunity
   • Budget constraint creates incentive to carefully steward resource use
   • Provider organizations share in budget savings and share risk for budget deficits

3. Quality Performance Incentive
   • Based on a broad set of nationally accepted, validated measures of ambulatory and hospital care
   • Range of performance targets on each measure reward “good to great” performance

Alternative Quality Contract-BCBS Massachusetts

As quality improves, provider share of surplus increases or share of deficit decreases

- Green: Quality Performance Incentive
- Blue: Provider Share of Surplus (increases as quality improves)
- Light Blue: Provider Share of Deficit (decreases as quality improves)

Quality Payments (per member per month):

- GATE 1.0: 20% Quality Performance Incentive, 80% Provider Share of Surplus
- GATE 2.0: 40% Quality Performance Incentive, 60% Provider Share of Surplus
- GATE 3.0: 55% Quality Performance Incentive, 45% Provider Share of Surplus
- GATE 4.0: 70% Quality Performance Incentive, 30% Provider Share of Surplus
- GATE 5.0: 80% Quality Performance Incentive, 20% Provider Share of Surplus

Cost Avoided by “Bending the Curve”

- PCMH trend has continued to sharply decline while there is early evidence of a modest rebound in trend in the overall book.

CareFirst Book of Business and PCMH Trends Compared to Target OIA Trend

<table>
<thead>
<tr>
<th>Year</th>
<th>CareFirst Book of Business Trend</th>
<th>PCMH Trend</th>
<th>PCMH OIA Targeted Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010/2011</td>
<td>6.8%</td>
<td>6.8%</td>
<td>7.5%</td>
</tr>
<tr>
<td>2011/2012</td>
<td>4.4%</td>
<td>6.5%</td>
<td>6.8%</td>
</tr>
<tr>
<td>2012/2013</td>
<td>2.4%</td>
<td>4.8%</td>
<td>5.5%</td>
</tr>
<tr>
<td>2013/2014</td>
<td>3.7%</td>
<td>2.0%</td>
<td>3.5%</td>
</tr>
</tbody>
</table>

Source: CareFirst HealthCare Analytics - Updated May 2014 – 2014 Projected based on claims run out through December 2015
Panels Make “Buying” and Arranging Decisions
Specialists and Hospitals Referrals

- No narrow networks are used
- PCPs refer where they believe they will get the best result
- Given the high percentage of admissions for common illnesses, many have become convinced of the efficacy of referring to lower cost Specialists and Hospitals

38,500 Providers of All Other Types
4,052 PCPs*

High Cost Providers
Medium Cost Providers
Low Cost Providers
5 Focus Areas for Panels

- We have found 5 focal points of action – things a Panel can do as a practical matter to positively impact cost and quality outcomes
- These are weighted to show their relative importance
- The weight of the Referral Pattern area reflects the importance of the most value laden decision made by a PCP: when and where to refer
- The extent of engagement with the Program drives all behavior change, causing it to be heavily weighted as well

HealthCheck Profile:
5 Focus Areas for Panels that Most Influence Cost and Quality

<table>
<thead>
<tr>
<th>5 Key Areas</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Effectiveness of Referral Patterns</td>
<td>35%</td>
</tr>
<tr>
<td>Extent of Engagement in Care Coordination Programs and with various TCCI programs</td>
<td>20%</td>
</tr>
<tr>
<td>Effectiveness of Medication Management</td>
<td>20%</td>
</tr>
<tr>
<td>Reduction in Gaps in Care and Quality Deficits</td>
<td>10%</td>
</tr>
<tr>
<td>Consistency of PCP Engagement and Performance within the Panel</td>
<td>15%</td>
</tr>
</tbody>
</table>
Calculating Costs

- **Traditional View**
  - Fixed Costs – constant regardless of the # patients seen
  - Variable Costs – fluctuate with # patients seen
  - Direct Costs – relates to patient specifically
  - Indirect Costs – necessary to support care delivery

<table>
<thead>
<tr>
<th>2013</th>
<th>Practice</th>
<th>% of Med Rev</th>
<th>Per FTE MD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td>3,500,000</td>
<td>100%</td>
<td>$700,000</td>
</tr>
<tr>
<td>Expenses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salaries - Support Staff</td>
<td>750,000</td>
<td>21%</td>
<td>$150,000</td>
</tr>
<tr>
<td>Information Technology</td>
<td>37,500</td>
<td>1%</td>
<td>$7,500</td>
</tr>
<tr>
<td>Professional Liability</td>
<td>52,000</td>
<td>1%</td>
<td>$10,400</td>
</tr>
<tr>
<td>Drugs</td>
<td>125,000</td>
<td>4%</td>
<td>$25,000</td>
</tr>
<tr>
<td>Medical Supplies</td>
<td>75,000</td>
<td>2%</td>
<td>$15,000</td>
</tr>
<tr>
<td>Rent</td>
<td>150,000</td>
<td>4%</td>
<td>$30,000</td>
</tr>
<tr>
<td>Physician</td>
<td>160,000</td>
<td>5%</td>
<td>$32,000</td>
</tr>
<tr>
<td>Total Expenses</td>
<td>2,449,500</td>
<td>70%</td>
<td>$489,900</td>
</tr>
</tbody>
</table>
### Calculating Costs

- **Transformed view looks at Costs by:**
  - Patient
  - Population
  - Bundle
  - Episode of Care

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>Per FTE MD</th>
<th>Per Patient (2,000)</th>
<th>Per Visit (6,000)</th>
<th>Per wRVU - FTE MD (8,000)</th>
<th>PMPM (30,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Income</strong></td>
<td>$</td>
<td>$700,000</td>
<td>$350</td>
<td>$117</td>
<td>$88</td>
<td>$23.33</td>
</tr>
<tr>
<td><strong>Expenses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salaries – Sup. Staff</td>
<td>$150,000</td>
<td>$75</td>
<td>$25</td>
<td>$19</td>
<td>$5.00</td>
<td></td>
</tr>
<tr>
<td>Information Tech.</td>
<td>$</td>
<td>$7,500</td>
<td>$4</td>
<td>$1</td>
<td>$1</td>
<td>$0.25</td>
</tr>
<tr>
<td>Professional Lib.</td>
<td>$</td>
<td>$10,400</td>
<td>$5</td>
<td>$2</td>
<td>$1</td>
<td>$0.35</td>
</tr>
<tr>
<td>Drugs</td>
<td>$</td>
<td>$25,000</td>
<td>$13</td>
<td>$4</td>
<td>$3</td>
<td>$0.83</td>
</tr>
<tr>
<td>Medical Supplies</td>
<td>$</td>
<td>$15,000</td>
<td>$8</td>
<td>$3</td>
<td>$2</td>
<td>$0.50</td>
</tr>
<tr>
<td>Rent</td>
<td>$</td>
<td>$30,000</td>
<td>$15</td>
<td>$5</td>
<td>$4</td>
<td>$1.00</td>
</tr>
<tr>
<td>Midlevels</td>
<td>$</td>
<td>$32,000</td>
<td>$16</td>
<td>$5</td>
<td>$4</td>
<td>$1.07</td>
</tr>
<tr>
<td>Physician</td>
<td>$</td>
<td>$220,000</td>
<td>$110</td>
<td>$37</td>
<td>$28</td>
<td>$7.33</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$</td>
<td>$489,900</td>
<td>$245</td>
<td>$82</td>
<td>$61</td>
<td>$16.33</td>
</tr>
</tbody>
</table>
Calculating Costs

Revenue per Visit $117

Total Exp per MD $489,900

Exp per day (240) $2,041

Break Even # visits 17.5
What can glean from your data? How about talking to the payers?
- Paid to practice/facility/pharmacy/post-acute = cost to payer
- Total Episode Cost = est $25,000

<table>
<thead>
<tr>
<th>CPT</th>
<th>Procedure Code Description</th>
<th>Patients</th>
<th>Paid</th>
<th>Paid per Episode - Ortho only</th>
</tr>
</thead>
<tbody>
<tr>
<td>27447</td>
<td>Arthroplasty - knee</td>
<td>659</td>
<td>$1,500,000</td>
<td>$2,276</td>
</tr>
<tr>
<td>29824</td>
<td>Arthroscopy - shoulder</td>
<td>429</td>
<td>$1,000,000</td>
<td>$2,331</td>
</tr>
<tr>
<td>27130</td>
<td>Arthroplasty - total hip</td>
<td>365</td>
<td>$750,000</td>
<td>$2,055</td>
</tr>
<tr>
<td>63047</td>
<td>Laminectomy</td>
<td>150</td>
<td>$475,000</td>
<td>$3,167</td>
</tr>
</tbody>
</table>

Episode includes 30 days pre and 90 days post surgery
New Costs to Consider

- Population View
  - Per Member Per Month
  - FFS Equivalency
  - Stop Loss
  - IBNR
  - Operational Considerations
  - Care Management
In every organization there are two types of cost:

1) **Costs that deliver value to customers or patients.** These costs are good and are to be encouraged. They result in the value that people pay for either directly or through their taxes.

2) **Costs that are incurred but don’t end up delivering value to customers or patients.** These costs are waste. Lean is about eliminating the waste and improving flow, to improve the proportion of good costs to bad.

Lean Background
"The core idea of Lean is to maximize customer value while minimizing waste. In other words, Lean means creating more value for customers (patients) with fewer resources."

James P Womack PhD

"Lead the organization as if you have no power."

Kan Higashi to Gary Convis…(NUMMI’s senior Japanese and senior American leaders)

http://www.lean.org/WhatsLean/History.cfm
• **What does your customer value?**
  – They define value or value-added with the following three conditions:
    • It must transform the product or service.
    • The customer must be willing to “pay” for it.
    • It must be done correctly the first time.
Principles of LEAN

• LEAN is:
  – Getting as close to the “ideal” from the customers perspective
    • Exactly what the customer needs
    • Precisely when they need it
    • Defect free
    • If problems occur – they are addressed in real time
    • Respect to all – staff and patients
    • Minimize wastes
    • Keep it simple
    • Kaizen = “good change”

• LEAN is Not:
  – about reducing headcount
  – necessarily increasing productivity
  – or cutting costs

Seven Flows of Healthcare

1. Patient
2. Providers
3. Information
4. Medications
5. Supplies
6. Equipment
7. Process Engineering
• Going to the “GEMBA” – where the work is done!

“You cannot be sure you really understand any part of a problem unless you go and see for yourself first hand. Don’t rely on reports of others.”
• **Team-Based Lean Improvements**
  
  – **RPIWs** Rapid Process Improvement Workshops
  – **Kaizen Events** Improvement projects with limited scope
  – **3P** Production Preparation Process
  – **Visual Daily** Dashboards
  – **Management** Teams being able to see, in one place, the status of key indicators and goals and take action
  – **5S** Organizing and making the workplace visual (wasted time)
Principles of LEAN

• **Purpose** – what customer problems are solved?
• **Process** – how will we assess value stream?
  – Make sure each step is:
    • Valuable
    • Capable
    • Available
    • Adequate
    • Flexible
    • coordinated
• **People** – who is responsible?

http://www.lean.org/WhatsLean/
5 Principles in LEAN
5 Principles of LEAN Thinking

1) Identify Customers and Specify Value
2) Identify and Map the Value Stream
3) Create Flow by Eliminating Waste
4) Respond to Customer Pull
5) Pursue Perfection
5 Principles of LEAN Thinking

1) Identify Customers and Specify Value

- Identify Value
- Map the Value Stream
- Create Flow
- Establish Pull
- Seek Perfection
2. Identify & Map the Value Stream

1. Identify Value
2. Map the Value Stream
3. Create Flow
4. Establish Pull
5. Seek Perfection
3. Create Flow by Eliminating Waste – 8 in every process

1. Over production
2. Waiting, both patients and staff
3. Unnecessary transport
4. Over processing
5. Excess inventory
6. Unnecessary movement
7. Defects
8. Human creativity
5 Principles of LEAN Thinking

4. Respond to Customer Pull

1. Identify Value
2. Map the Value Stream
3. Create Flow
4. Establish Pull
5. Seek Perfection
5 Principles of LEAN Thinking

5. Pursue of Perfection

1. Identify Value
2. Map the Value Stream
3. Create Flow
4. Establish Pull
5. Seek Perfection
Step 1: Define customer requirements

Who are our customers?
What do they want?
When do they want it?

Customer Requirements

Lab results to be accurate
Urgent need for results asap
Value Stream Map Example

Step 2: Identify key steps in the process

- Customer Requirements
  - Lab results to be accurate
  - Urgent need for results asap

- Blood Sample Taken
- Label & register sample
- Store Sample
- Test Sample
- Capture Results
Step 3: Gather process data

Customer order

- **Customer Requirements**
  - Lab results to be accurate
  - Urgent need for results asap

- Blood Sample Taken: CT = 1 min
- Label & register sample: CT = 2 min
- Store Sample: CT = 1.5 hr
- Test Sample: CT = 30 min
- Capture Results: CT = 2 min

CT refers to “Cycled Time’, the time to complete the step from start to finish
Step 4: Identify additional info

Customer Requirements
- Lab results to be accurate
- Urgent need for results asap

Results available

Value Stream Map Example

Customer order

Blood Sample Taken
CT= 1 min

Label & register sample
CT= 2 min

Store Sample
CT= 1.5 hr
80%<2hrs

Test Sample
CT= 30 min
Very Variable (single test takes 10 min)

Capture Results
CT= 2 min

Value-add=~15min
Non value add~6hrs

80%<2hrs

2hrs
30 sec
15 in
2hr
Step 5: Determine time between gaps

Customer Requirements

Lab results to be accurate
Urgent need for results asap

Results available

Customer order

Blood Sample Taken
CT= 1 min

Label & register sample
CT= 2 min

Store Sample
CT= 1.5 hr
80%<2hrs

Test Sample
CT= 30 min
Very Variable (single test takes 10 min)

Capture Results
CT= 2 min

Value -add=~15min
Non value add=~6hrs

2hrs
10 sec
30 sec
30 sec
15 min
2 hrs

Transport
walking
waiting
Value Stream Map Example

Step 6: Identify Value add & Non Value add times

Customer Requirements
- Lab results to be accurate
- Urgent need for results asap

Results available

Value-add=≈15min
Non value add=≈6hrs

Blood Sample Taken
- CT= 1 min
- VA

Label & register sample
- CT= 2 min
- VA

Store Sample
- CT= 1.5 hr
- NVA

Test Sample
- CT= 30 min
- VA

Capture Results
- CT= 2 min
- VA

Customer order

Transport
- 30 sec
- NVA

Walking
- 30 sec
- NVA

Waiting
- 15 min
- NVA

Results available

Very Variable (single test takes 10 min)

Capture Results
- VA

2hrs
- NVA

10 sec
- NVA

30 sec
- NVA

30 sec
- NVA

15 min
- NVA

2 hrs
- NVA
Step 7: Determine initial areas of opportunity

Customer Requirements

- Lab results to be accurate
- Urgent need for results asap

Results available

Value Stream Map Example

Customer order

Blood Sample Taken
CT = 1 min
VA

Label & register sample
CT = 2 min
VA

Store Sample
CT = 1.5 hr
NVA

Test Sample
CT = 30 min
NVA

Capture Results
CT = 2 min
VA

Value-add = ~15 min
Non value add = ~6 hrs

Transport
30 sec
NVA

30 sec
walking
NVA

15 min
waiting
NVA

2 hrs

80% < 2 hrs

Very Variable (single test takes 10 min)

10 min

Value - add = ~15 min
Non value add = ~6 hrs

VA

NVA

NVA

NVA

NVA

NVA

NVA

NVA

NVA

NVA

NVA
Value of a Par System
• Inventory is pulled from Primary Bin
• Primary Bin Inventory is depleted
  – Begin Pulling from Secondary Bin
• Secondary Bin becomes Primary Bin
• Depleted Bin is scanned for re-ordering
• Order is filled for replenishment of empty bin and process starts over
Value of a PAR System

1. Inventory is pulled from Primary Bin
2. Primary Bin Inventory is depleted
   Begin Pulling from Secondary Bin
3. Depleted Bin is scanned for re-ordering
4. Order is filled
5. Order is filled for replenishment of empty bin and process starts over
Value of a PAR System

- Kanban Two-Bin System affects Supply Chain costs
- Eliminates counting
- Minimizes wait times and logistics costs
- Continuous process improvement
- Prevents overstock/reduces holding costs
- Improves labor efficiency
- Reduces obsolescence
• I like the Kanban system because:
  - It works
  - It’s simple
  - It doesn’t require math
  - It doesn’t require a computer
Next Steps
Next Steps to LEAN

Find a change agent → Get the lean knowledge → Find a lever by seizing a crisis → Forget grand strategy

Map the value streams → Begin as soon as possible → Demand immediate results → As soon as you’ve got momentum, expand the scope
QUESTIONS

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