Measuring Care, Quality and Outcomes with Data

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The University of Vermont Medical Center
Quality

Our fundamental belief is that safe, effective and high quality care is cost-effective care.

The right care, at the right time, by the right provider, in the right location with the best outcome possible.
Fundamental Healthcare Improvement Goals

- Measure current performance and identify variation in practice
- Identify a “best practice” and implement a change that will drive improvement
- Improve the “overall value” of the care provided and the care received

\[
\text{Value} = \frac{\text{Improved Outcomes}}{\text{Cost}}
\]
Ideal Measures in Healthcare

- Applicable to a large population
- Limited administrative burden to collect and analyze the data. Best when data collection is built into clinical workflows
- Validated: Metric specifications have been tested as being reliable and replicable across a variety of care settings
Ideal Measures in Healthcare Are:

- **Actionable**: Information will be used to drive change
  - Data collected -> information that is actionable & drives improvement in care delivery and outcomes

- **Comparable**: Evidence based, nationally endorsed w/ baseline and validated benchmarks.

- **Replicable**: Measure is trended over a period of time so that performance can be monitored and changes can be tracked for effectiveness. Recommend that measures are kept stable for minimum of 3 years.

- **Meaningful & Informative**: Data will be used to assess the effectiveness of health care delivery in an identified population across care settings.
What We Should Know About Ideal Measures.....

• Measures provide “a lens” from which to evaluate performance of a system or an individual
  o Measures are most effective when they are specific enough to drive change

• Change is often best driven with a “few good measures” that target identified areas of improvement
  o Measures are better when “a few” areas are identified for direct performance improvement
• Results in Improvement Over Time
Measurement

- What should we measure?
- Patient Oriented Outcomes
  - Death
  - Disability
  - Independent living
- Disease Oriented Outcomes
  - Hypertension
  - Hemoglobin A1C
  - Total Cholesterol
Deciding what to measure...

- High risk, high volume, problem prone
- Evidence base exists from which to make actionable change
- Benchmarks are available to gauge performance
Measurement Tsunami

- National Committee for Quality Assurance (NCQA): Healthcare Effectiveness Data Information Sets (HEDIS):
  - 83 measures across 5 domains
    - Preventative
    - Chronic
    - High Risk
- Meaningful Use
- ACO 33
- Regulatory measures:
  - The Joint Commission
  - Population based
- Process measures
- Others
Using Data to Drive Change....
Transforming Primary Care

Project Goals:

- Optimize an integrated network of patient centered medical homes providing a highly reliable primary care foundation to support primary care practices that will effectively connect patients with community health resources and our specialty care colleagues.

- A new care delivery process founded on the principles of standardization, reliability and customization to the patient.

- The capability to harness information and understand our performance in terms of outcomes, cost, and satisfaction to thrive in a health care reform and population landscape

- Optimize provider and facility resources
Key Changes

- Ideal Primary Care Encounter (NCQA standards linked)
- Pre-Visit Planning
- Daily Huddles for each Care Team
- Weekly Care Team Coordination Meetings
- Implementation of registry functionality in EPIC
- New Staffing Model with centralized training support
  - Continuity in the staff interactions with patients and their families
Outcomes – Immunization Rates
2011 VS 2014
Outcomes – ED Utilization
2011 vs 2014

ED Utilization Rate per 1,000

Pre
Post
Outcomes – Patient Satisfaction (% 5’s)  
2011-2015

- Berlin
- Colch
- Hines
- Milt
- Sburl
- Aesc
- GivBurl
- GivEss
- Will
- PedsBurl
- PedsWill
- Average

Pre vs Post
## Comparative Data

### 2015 Ambulatory Care Quality and Accountability (AQA) Performance Scorecard

**The University of Vermont Medical Center, University of Vermont Medical Group**

This document presents the measures evaluated in the 2015 UHC Ambulatory Care Quality and Accountability ranking. This scorecard provides a comparison of your organization’s performance with that of other academic medical centers. The data were obtained from existing UHC data resources, including the Faculty Practice Solutions Center (Q2 2014 – Q1 2015), the Access Initiative (Q2 2014 – Q1 2015), Core Measures Data Base (Q2 2014 – Q4 2014), and the Operational Data Base (Q2 2014 – Q1 2015). Data from the most recent CMS Quality Resource Use Report (Mid-Year QRUR) was also used. The goal of the Ambulatory Care Quality and Accountability ranking is to assess organizational performance across a broad spectrum of high-priority dimensions using measures developed by UHC, national organizations or the federal government. The 2015 scoring and ranking cover the domains of access to care, quality and efficiency, equity, continuum of care and capacity management and throughput. Refer to the methodology white paper (available at www.uhc.edu) for specifics regarding the metrics, scoring, and data sources used.

<table>
<thead>
<tr>
<th>Overall Composite Performance</th>
<th>Overall</th>
<th>Your Weighted Score</th>
<th>AQA Top Score</th>
<th>AQA Median Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rank (denotes ties)</td>
<td>8</td>
<td>60.9%</td>
<td>60.9%</td>
<td>65.0%</td>
</tr>
<tr>
<td><strong>Overall (Based on Domain Performance)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Domain (Weight)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access to Care (30%)</td>
<td>23*</td>
<td>55.5%</td>
<td>16.7%</td>
<td>20.0%</td>
</tr>
<tr>
<td>Continuum of Care (10%)</td>
<td>19*</td>
<td>57.5%</td>
<td>5.8%</td>
<td>7.4%</td>
</tr>
<tr>
<td>Quality &amp; Efficiency (25%)</td>
<td>3</td>
<td><strong>66.8%</strong></td>
<td>16.7%</td>
<td><strong>18.4%</strong></td>
</tr>
<tr>
<td>Capacity Management &amp; Throughput (30%)</td>
<td>21</td>
<td>56.0%</td>
<td>16.8%</td>
<td>20.5%</td>
</tr>
<tr>
<td>Equity (5%)</td>
<td>1*</td>
<td>100.0%</td>
<td>5.0%</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

- **Access to Care (30%)** includes performance on new patient visits, new patient visit schedule lag and provider-initiated bump rates for various medical and surgical subspecialties.
- **Continuum of Care (10%)** includes performance on Joint Commission Hospital Core Measures ED-1b and ED-OP-18b (median time); ED patients that are low acuity and ED frequent fliers.
- **Quality & Efficiency (25%)** includes select CMS Value-Based Payment Modifier Quality and Cost measures at the medical group-level and CT-scan utilization for specific ED patient populations.
- **Capacity Management & Throughput (30%)** includes encounters per physician per session and utilization of existing capacity for select medical and surgical subspecialties and high cost imaging throughput. Also includes an information-only metric on encounters per room per hour for select medical and surgical subspecialties.
- **Equity (5%)** includes access to care measures on appointment schedule lag by payer class (Medicaid and Medicare) for select medical and surgical subspecialties and ED length of stay (ED-1b) by gender and race.
Society of Thoracic Surgeons (STS)

Adult Cardiac Surgery and General Thoracic Surgery
National Databases
Northern New England Cardiovascular Disease Study Group (NNECDSG)

• Member for 30 years

• Regional consortium that includes members from eight institutions in Vermont, Maine and New Hampshire

• Administers a clinical registry that provides risk adjusted, local benchmarking data to guide PI activities

• Allows for opportunities to network, share best practices and work on joint quality/research projects
Databases

• Adult Cardiac Surgery
  - Includes seven types of procedures
    - 100% of cases reviewed (approximately 30 – 40 cases/month)
    - Collects over 300 data elements for each case
    - Requires 2 - 2 ½ hours of time for each case review
    - Reports generated quarterly
    - Expanded regional benchmarking data (includes Connecticut, Massachusetts, Rhode Island)
      - Like group comparison (similar in case volume/surgical residency program)

• General Thoracic Surgery
  - Includes cancerous and non cancerous procedures
  - 100% of cases reviewed (approximately 15 – 20 cases/month)
  - Collects approximately 200 data elements for each case
  - Requires 1 – 1 ½ hours of time for each case review
  - Reports generated semi-annually
Quality Ratings and NQF Endorsed Measures

- Included in the Adult Cardiac Surgery Report semi-annually
- Takes into account the quality of care patients receive
- Based upon 11 individual NQF-endorsed CABG measures of quality, grouped into four domains: absence of mortality, absence of morbidity, use of IMA and medications
- Star ratings applied based upon performance compared to overall STS average
### STS CABG Composite Quality Rating

**Participant 30966**
**STS Period Ending 06/30/2015**

<table>
<thead>
<tr>
<th>Quality Domain</th>
<th>Participant Score (98% CI)</th>
<th>STS Mean Participant Score</th>
<th>Distribution of Participant Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul 2014 - Jun 2015 Overall</td>
<td>96.4% (94.8, 97.5)</td>
<td>96.7%</td>
<td><img src="image1" alt="Distribution Chart" /></td>
</tr>
<tr>
<td>Jul 2014 - Jun 2015 Absence of Mortality</td>
<td>97.3% (95.0, 98.7)</td>
<td>97.7%</td>
<td><img src="image2" alt="Distribution Chart" /></td>
</tr>
<tr>
<td>Jul 2014 - Jun 2015 Absence of Morbidity</td>
<td>90.2% (85.4, 94.0)</td>
<td>88.6%</td>
<td><img src="image3" alt="Distribution Chart" /></td>
</tr>
<tr>
<td>Jul 2014 - Jun 2015 Use of IMA</td>
<td>99.1% (97.4, 99.8)</td>
<td>98.8%</td>
<td><img src="image4" alt="Distribution Chart" /></td>
</tr>
<tr>
<td>Jul 2014 - Jun 2015 Medications</td>
<td>81.2% (74.9, 86.6)</td>
<td>90.0%</td>
<td><img src="image5" alt="Distribution Chart" /></td>
</tr>
</tbody>
</table>

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1. **Participant performance is significantly lower than the STS mean based on 99% Bayesian probability**
2. **Participant performance is not significantly different than the STS mean based on 99% Bayesian probability**
3. **Participant performance is significantly higher than the STS mean based on 99% Bayesian probability**

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*Please refer to Report Overview - STS Composite Quality Rating and NQF-Endorsed Measures for full details*
### STS AVR Composite Quality Rating

**Participant 30966**  
**STS Period Ending 06/30/2015**

<table>
<thead>
<tr>
<th>Quality Domain</th>
<th>Participant Score (95% CI)</th>
<th>STS Mean Participant Score</th>
<th>Participant Rating(^1)</th>
<th>Distribution of Participant Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul 2012 - Jun 2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>93.0% (90.9, 95.3)</td>
<td>94.7%</td>
<td>⭐⭐</td>
<td></td>
</tr>
<tr>
<td>Jul 2012 - Jun 2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absence of Mortality</td>
<td>97.4% (94.9, 99.0)</td>
<td>97.4%</td>
<td>⭐⭐</td>
<td></td>
</tr>
<tr>
<td>Jul 2012 - Jun 2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absence of Morbidity</td>
<td>85.1% (78.5, 90.6)</td>
<td>87.4%</td>
<td>⭐⭐</td>
<td></td>
</tr>
</tbody>
</table>

- **⭐⭐** = Participant performance is significantly lower than the STS mean based on 97.5% Bayesian probability
- **⭐⭐** = Participant performance is not significantly different than the STS mean based on 97.5% Bayesian probability
- **⭐⭐⭐** = Participant performance is significantly higher than the STS mean based on 97.5% Bayesian probability

\(^2\) Please refer to Report Overview - STS Composite Quality Rating and NQF-Endorsed Measures for full details.
Executive Summary (2015-H4)

Number of Isolated CABG Procedures
Cumulative over last 10 years

Cumulative Count

Isolated CAB

2008 2016
Major Procedures (2015-H4)
Intraop Blood Products Used

<table>
<thead>
<tr>
<th>Year</th>
<th>Participant</th>
<th>Like</th>
<th>STS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>14.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>8.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>24.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>27.5%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Radial Artery Used

<table>
<thead>
<tr>
<th>Year</th>
<th>Participant</th>
<th>Like</th>
<th>STS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>4.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>5.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>4.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>6.9%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Cross-Clamp Time (min)
Median + 25th/75th Percentiles

Minutes

Participant Like STS
Intraop/Postop Products Used

- 2013: 24.5%
- 2014: 30.0%
- 2015: 40.0%
- 2015 Like: 43.1%

Percent of Patients

Day 1: Track 3 – Measuring Care, Quality and Outcomes with Data
Any Reoperation
Observed rate

Percent of Patients

<table>
<thead>
<tr>
<th>Year</th>
<th>Participant</th>
<th>Like</th>
<th>STS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>0.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>0.6%</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>3.9%</td>
<td>5.5%</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

CAB (2015-H4)
Deep Sternal Infx/Mediastinitis

Observed rate

Percent of Patients

<table>
<thead>
<tr>
<th>Year</th>
<th>Participant</th>
<th>Like</th>
<th>STS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>2014</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>2015</td>
<td>0.8%</td>
<td>0.8%</td>
<td>0.8%</td>
</tr>
</tbody>
</table>
Major Complication or Mortality
Risk–adjusted rate + 95% CI

Percent of Patients

25.0%
20.0%
15.0%
10.0%
5.0%
0.0%

Participant Like STS

CAB (2015-H4)
30-Day Readmission

- 2013: 7.7%
- 2014: 8.3%
- 2015: 9.7%
- 2016: 10.0%

Percent of Patients
MVR (2015-H4)
ImproveCareNow: A Collaborative Chronic Care Network

Jillian Sullivan, MD MSCS
Physician Site Leader, ImproveCareNow
Associate Professor of Pediatrics
Pediatric Gastroenterology and Nutrition
UVM Children’s Hospital
# Smartform

## IBD Registry

### Background Information

- **Current diagnosis**
  - Crohn’s disease
  - Ulcerative colitis
  - Indeterminate colitis

- Has the patient had a complete colectomy? (If correct information appears in the sidebar, it is okay to leave this response blank.)
  - Yes
  - No
  - Unknown

- Does the patient currently have an ileostomy or colostomy?
  - Yes
  - No
  - Unknown

### Current Symptoms

**Describe the IBD symptoms on the WORST day in the last 7 days:**

- **General well-being**
  - Normal
  - Fair
  - Poor
  - Unknown

- **Limitations in daily activities**
  - No limitations
  - Occasional
  - Frequent
  - Unknown

- **Abdominal pain**
  - None
  - Mild
  - Moderate to severe
  - Unknown

- **Description of abdominal pain**

### Stool Characteristics

**Describe the stools on the WORST day in the last 7 days:**

- **Total number of stools**

- **Most stools were**
  - Formed
  - Partially formed
  - Watery
  - Unknown

- **Number of liquid/watery stools per day (0 if none)**
  - Not available/assessed

- **Did the patient report bloody stools?**
  - Yes
  - No
  - Unknown

- **Did the patient report nocturnal diarrhea?**
  - Yes
  - No
  - Unknown

### Extraintestinal Manifestations (current)

- **Fever >38.5°C for 3 of the last 7 days?**
  - Yes
  - No
  - Unknown

- **Definite arthritis?**
  - Yes
  - No
  - Unknown
Population Management Example: Care Stratification Score (CSS)
### Pre-Visit Planning

#### Case Study:

**Diagnosis:** Crohn's Disease - 2/2008
**Phenotype:** Inflammatory, non-penetrating, non-stenosing
**Lower:** Ileocolonic
**Upper Proximal:** No
**Upper Distal:** No
**Perianal Phenotype:** No

<table>
<thead>
<tr>
<th>Last Visit:</th>
<th>5/6/2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wt (kg):</td>
<td>62.50</td>
</tr>
<tr>
<td>Ht (cm):</td>
<td>177.20</td>
</tr>
<tr>
<td>BSA:</td>
<td>1.754</td>
</tr>
<tr>
<td>Date of last hospitalization:</td>
<td>Not Recorded</td>
</tr>
<tr>
<td>Last Gold Test &amp; Date:</td>
<td>Indeterminate 5/3/2015</td>
</tr>
</tbody>
</table>

#### Visits:

<table>
<thead>
<tr>
<th>Date</th>
<th>04/07/2015</th>
<th>06/02/2015</th>
<th>07/31/2015</th>
<th>08/25/2015</th>
<th>11/20/2015</th>
<th>01/15/2016</th>
<th>03/11/2016</th>
<th>05/06/2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCDA</td>
<td>Present</td>
<td>Present</td>
<td>Present</td>
<td>Present</td>
<td>Present</td>
<td>Present</td>
<td>Present</td>
<td>Present</td>
</tr>
<tr>
<td>PA</td>
<td>Satisfactory</td>
<td>Satisfactory</td>
<td>Satisfactory</td>
<td>Satisfactory</td>
<td>Satisfactory</td>
<td>Satisfactory</td>
<td>Satisfactory</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>Nutritional Status</td>
<td>Satisfactory</td>
<td>Satisfactory</td>
<td>Satisfactory</td>
<td>Satisfactory</td>
<td>Satisfactory</td>
<td>Satisfactory</td>
<td>Satisfactory</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>Growth Status</td>
<td>Satisfactory</td>
<td>Satisfactory</td>
<td>Satisfactory</td>
<td>Satisfactory</td>
<td>Satisfactory</td>
<td>Satisfactory</td>
<td>Satisfactory</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>Albumin</td>
<td>4.4</td>
<td>4.4</td>
<td>4.4</td>
<td>4.4</td>
<td>4.7</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>CRP</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>ESR</td>
<td>8.0</td>
<td>8.0</td>
<td>11.0</td>
<td>2.0</td>
<td>2.0</td>
<td>5.0</td>
<td>8.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Hematocrit</td>
<td>45.0</td>
<td>41.7</td>
<td>44.1</td>
<td>46.0</td>
<td>41.5</td>
<td>44.6</td>
<td>42.0</td>
<td>59.7</td>
</tr>
</tbody>
</table>

*Result dates may differ from visit dates*

**Lab ordering guidelines:** 5-ASA q8h, 6mp/ASA/MTX q3-4mo, Biologics q2-3mo

#### Care Stratification

<table>
<thead>
<tr>
<th>CS Score</th>
<th>CS Group</th>
<th>Current Disease Activity</th>
<th>12 Month Disease Activity</th>
<th>BMI Z-Score</th>
<th>M2 Velocity</th>
<th>Hospital Adm. within 3 months</th>
<th>Currently on Cortico</th>
<th>Cortico last 3 months</th>
<th>Psychosocial Risk Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0 (Low)</td>
<td>(Quiescent)</td>
<td>(Quiescent)</td>
<td>0 (BMI Score = 1 or Missing)</td>
<td>0 (M2 Velocity = 1 or Missing)</td>
<td>0 (Yes or Unknown)</td>
<td>0 (Yes or Unknown)</td>
<td>0 (Yes or Unknown)</td>
<td>No</td>
</tr>
</tbody>
</table>

#### Treatments

<table>
<thead>
<tr>
<th>Immunomodulators</th>
<th>Dose (mg)</th>
<th>mg/kg (last visit)</th>
<th>Guideline</th>
<th>Attention Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thiopurines</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TMTT date / result</td>
<td>2/6/08 (Normal)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Azathioprine</td>
<td>100.0</td>
<td>1.6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Biologics**

<table>
<thead>
<tr>
<th>Remicade/Infliximab</th>
<th>Last Infusion:</th>
<th>500.0</th>
<th>8.0</th>
<th>8.0</th>
<th>8.0</th>
<th>8.0</th>
<th>8.0</th>
<th>8.0</th>
<th>8.0</th>
<th>8.0</th>
<th>8.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interval (weeks)</td>
<td>8</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Other Labs**

<table>
<thead>
<tr>
<th>6MP Patients</th>
<th>TGN: 263.0</th>
<th>2/10/15</th>
<th>BMMPN: 1275.0</th>
<th>3/10/15</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infliximab Patients</td>
<td>Trough: 3.7</td>
<td>3/11/15</td>
<td>Antibodies: -BCL</td>
<td>3/11/15</td>
<td>Notes</td>
</tr>
</tbody>
</table>
# Pre-Visit Planning

## Laboratory Results

<table>
<thead>
<tr>
<th>Test</th>
<th>Last Done</th>
<th>5-ASA</th>
<th>6MP/AZA/Mtx</th>
<th>Biologics</th>
<th>Notes</th>
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<tr>
<td>Liver Panel</td>
<td>5/6/16</td>
<td>q 6</td>
<td>q 3-4</td>
<td>q 2-3</td>
<td></td>
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<tr>
<td>Creatinine</td>
<td>1/23/13</td>
<td>q 6</td>
<td>q 3-4</td>
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<td>Urinalysis</td>
<td>N/A</td>
<td>q 6</td>
<td>q 3-4</td>
<td></td>
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<td>Thyroid</td>
<td>N/A</td>
<td>q 6</td>
<td>q 3-4</td>
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<td>25 OH Vit D</td>
<td>5/6/16</td>
<td>q 6-12</td>
<td>q 6-12</td>
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<td>Folate</td>
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<td>Iron</td>
<td>5/6/16</td>
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<td>5/6/16</td>
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<tr>
<td>6TG</td>
<td>285.0 (2015-02-10)</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

## Miscellaneous Considerations

- DEXA
- Optica
- Flu Shot

## Considerations

The following are general items for your consideration as you establish a plan for your patient. They are not applicable to all patients. Similarly, evaluation and testing beyond those noted below may be indicated. These considerations should not be used in place of your clinical judgment.

JSS Note 5/6/16:

Assessment:

17 yo male with ileocolonic Crohn's; very mild symptoms following most recent infusion.

Dose was increased today to 8 mg/kg given low trough at last check and symptoms prior to this infusion.
Clinical remission rate in CD and UC

PGA = Inactive (Physician Global Assessment)

Centers >75% registered
**UVM QI Tools**

- Weekly IBD QI (core team) meetings
  - Review population management
  - Set 90 day and annual QI goals (submitted to ICN)
  - Use workflow charts
  - Complete PDSAs for QI projects
  - Current projects
    - Medication adherence
    - Informational packet for newly diagnosed patients
    - Incorporating parents/patients (Engagement project)
    - Improving medication reconciliation
    - Developing infliximab trough protocol
UVM QI Tools

- **Weekly divisional meeting**
  - Discuss patients reviewed during PMR
  - Discuss patients coming in for visits during the current week
  - Address other non-IBD related team concerns

- **Monthly IBD QI meetings**
  - Core team + 2 parents + UVMCH quality council + VCHIP

- **Parent/Patient Engagement**
  - Working with ICN with specific attention to this
  - 2 Parent Mentors
    - Available for families to contact
    - UVMCH Parents are active regionally and nationally (fundraising—music and racing team, committees)
UVM QI Outcomes

Clinical Measures

Percent of patients in remission

[Graph showing data over time]

Day 1: Track 3 – Measuring Care, Quality and Outcomes with Data
### UVM QI Measures (compared to ICN)

#### Back to home...

- **Center**: Vermont
- **Month**: 2016-05

<table>
<thead>
<tr>
<th>Measure Group</th>
<th>Sub Group</th>
<th>Measure Title</th>
<th>Network Target</th>
<th>&gt;=5% cohort Performance</th>
<th>Team's Performance</th>
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</thead>
<tbody>
<tr>
<td>Clinical Measures</td>
<td>Clinical Remission</td>
<td>Percent of patients in remission</td>
<td>80</td>
<td>81</td>
<td>89</td>
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<tr>
<td></td>
<td></td>
<td>Percent of patients with prednisone-free remission</td>
<td>76</td>
<td>79</td>
<td>87</td>
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<tr>
<td></td>
<td></td>
<td>Percent of patients with sustained remission</td>
<td>45</td>
<td>52</td>
<td>42</td>
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<tr>
<td></td>
<td></td>
<td>Percent of patients not taking prednisone</td>
<td>95</td>
<td>95</td>
<td>97</td>
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<tr>
<td></td>
<td>Adequate Nutrition and Growth</td>
<td>Percent of patients with satisfactory nutritional status</td>
<td>90</td>
<td>91</td>
<td>90</td>
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<tr>
<td></td>
<td></td>
<td>Percent of patients at risk of nutritional failure</td>
<td>6</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Percent of patients in nutritional failure</td>
<td>1</td>
<td>0</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Percent of patients with satisfactory growth status</td>
<td>90</td>
<td>94</td>
<td>99</td>
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<tr>
<td></td>
<td></td>
<td>Percent of patients at risk of growth failure</td>
<td>5</td>
<td>2</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Percent of patients in growth failure</td>
<td>2</td>
<td>0</td>
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<tr>
<td></td>
<td>Model Classification</td>
<td>Percent of visits with a complete bundle</td>
<td>95</td>
<td>91</td>
<td>100</td>
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<tr>
<td></td>
<td>Model Treatment</td>
<td>Percent of patients with a documented visit within the last 280 days</td>
<td>80</td>
<td>75</td>
<td>88</td>
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<tr>
<td></td>
<td></td>
<td>Percent of visits where TPMT has been measured when treatment with thiopurine is started</td>
<td>90</td>
<td>82</td>
<td>100</td>
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<tr>
<td></td>
<td></td>
<td>Percent of patients whose dose of thiopurine is at least the dose recommended in the ICN Model Care Guidelines</td>
<td>80</td>
<td>65</td>
<td>79</td>
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<tr>
<td></td>
<td></td>
<td>Percent of visits where initial dose of anti-TNF therapy is given that patient had a TB test within the prior 12 months</td>
<td>95</td>
<td>78</td>
<td>100</td>
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<tr>
<td></td>
<td></td>
<td>Percent of Patients where the dose of infliximab is at least 4.5 mg/kg</td>
<td>95</td>
<td>96</td>
<td>96</td>
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<tr>
<td>Data Quality</td>
<td></td>
<td>Percent of population registered AND active in registry</td>
<td>84</td>
<td>104</td>
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<td></td>
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<td>Percent of actual visits recorded in registry</td>
<td>87</td>
<td>109</td>
<td></td>
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<td></td>
<td></td>
<td>Percent of visits with all critical data recorded</td>
<td>86</td>
<td>94</td>
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<tr>
<td></td>
<td></td>
<td>Percent of visits meeting the consistency bundle</td>
<td>86</td>
<td>82</td>
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<tr>
<td></td>
<td></td>
<td>Percent of active patients in registry with visit recorded in last 13 months</td>
<td>93</td>
<td>99</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Was there at least one hospital discharge within the last 90 days?</td>
<td>73</td>
<td>109</td>
<td></td>
</tr>
</tbody>
</table>

**Key:**
- At or above Network Target
- Scoring below the Cohort Team Performance and Network Target

*Please note aggregate data quality measures are calculated for all centers regardless of registration percentage*
Example of completed QI project: Screening for TB Infection Prior to Initiation of anti-TNF Therapy

• Why did we consider this project?
  o We were frequently under the network target of having 95% of visits where first dose of anti-TNF given that a patient had a TB test within the prior 12 months
  o Recent TB exposures at local elementary school

• Interventions
  o TB education at noon divisional meeting
  o Development of a “dotphrase” in PRISM
    ▪ Also addressed other issues with initiation of anti-TNF therapy including prior authorization and physician completion of the infusion bay therapy plan
TB Testing QI project: Outcome

Visits with a Negative TB Test Prior to Starting α-TNF

Lag Time

0% 20% 40% 60% 80% 100% 120%


% Goal
Future Projects

- Improve growth monitoring in patients with IBD
  - Document mid-parental height
  - Establish standards for endocrine referral
  - Decide on need for routine imaging (?bone age/DEXA)
- Improving transition of pediatric GI patients to adult GI practices
  - Hospital/VCHIP initiatives underway
- Expanding medication adherence tool to research study
  - Testing effect of our interventions
    - Outcomes could include medication refill data, drug levels, disease outcome measures
You can’t improve what you don’t measure.....
Summary

- The most important reason to measure is to drive improvement
- Use measures that have limited administrative burden:
  - Easily validated and do not require extensive chart review.
- Select a number that is manageable:
  - “A few good measures that are aligned to optimize improvement”
- Monitor the selected measures over time:
  - Don’t change the measures or add new ones for at least 36 months so that performance may be tracked over time
- The process takes time and resources and when done well the results can be profound
Population Health Alliance
Population Health Alliance (PHA) Data Use

Source Layer
- EHR
- Medent
- eClinical
- NextGen

Data Gathering Phase

Data Curation Phase (VITL)

Staging Layer

Data Management Phase

Application Layer
- Virtual EDW
- QVD

App Logic Phase

Retrospective Prospective Predictive Analytic Phase
- IF phq9 > 3.5 THEN ED

Revenue Distribution

Note: The information contained here is based on fictional data, but using the live AHA data schema.
Measuring Care, Quality and Outcomes with Data: Using Data to Improve the Quality of Care

Toby Sadkin, MD
Primary Care Health Partners
Measuring Care, Quality and Outcomes with Data: Using Data to Improve the Quality of Care

Objectives:

• Understand how data from EHR can be used as a tool to implement change, leading to improved patient care and quality measures

• Identify strategies for using a combination of practice EHR and data from ACO information systems to coordinate and improve care for high risk patients
The largest physician-owned primary care group in Vermont

25 physicians ● 13 NP’s ● 5 PA’s
33,000 active patients

Primary Care Health Partners (PCHP)

<table>
<thead>
<tr>
<th>PCHP offices</th>
<th>FP</th>
<th>Peds</th>
<th>IM</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. Albans</td>
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</tr>
<tr>
<td>Milton</td>
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<td>x</td>
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<tr>
<td>South Burlington</td>
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<td>x</td>
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<td>Burlington North End</td>
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<td>Hoosick Falls, NY</td>
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<td>x</td>
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</tr>
<tr>
<td>Plattsburgh, NY</td>
<td></td>
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</tbody>
</table>
Our Mission

We are a group of physician-owned, independent primary care practices. Through our patient centered medical home model, we work collaboratively to provide compassionate, accessible, high quality healthcare. We believe that through this work we can enhance the well-being of our patients, and the quality of health in our communities.
Our Vision

Primary Care Health Partners will remain an independent physician-owned model for integrated quality health care. We will strive to remain adaptable, resilient and fiscally responsible. We will stay at the forefront of primary care using an evidence-based approach and embrace quality improvement tools and new technologies. As healthcare evolves, we will continue to advocate for independent primary care at local, state, and national levels.
Our Core Values

• Patient and family-centered care
  o Compassion
  o Collaboration
  o Prevention
  o Wellness

• Cost effective quality care

• Health education and advocacy

• Promote care using technology
St. Albans Primary Care

• Located in St. Albans-Doctors Office Common
  • Level 3 Patient-Centered Medical Home
    • 7100 active patients

Our Staff

- 3 physicians
- 3 nurse practitioners
- 1 per diem PA
- 3 nurses
- 4 LPN/MA
- 4 Receptionist
- 1 office administrator
- Community Health Team, part time (Need More!!!)
Illustration #1:
How we used data from our EHR as a tool to implement change, leading to improved patient care and quality measures
### Learning Sessions:

**Session 1 - Prevention and Screening Only Measures - 05/15/2015**

- **Day 1: Track 3 – Measuring Care, Quality and Outcomes with Data**

<table>
<thead>
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<th>Measure Domain</th>
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<td>0057</td>
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<td>Core 13</td>
<td>0059</td>
</tr>
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<td>Core 14</td>
<td>0060</td>
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<td>Core 29</td>
<td>0075</td>
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</table>

**Session 2 - Screening and Intervention Measures - 08/28/2015**

**Session 3 - At-Risk Population Measures - 10/30/2015**

**Session 4 - Utilization and Cost Measures - 01/29/2016**

**St. Albans Blueprint/ACO Collaborative**
Plan-Do-Study-Act (PDSA) Cycle

A systematic series of steps for gaining valuable learning and knowledge for the continual improvement of a process.
St. Albans Primary Care

Blueprint-ACO Learning Collaborative

Action Period 3:
Improving Outcomes for High-Risk Populations
3/18/16
St. Albans Primary Care

Learning Collaborative: Reporting Period 3

Selected Projects

- Diabetic Retinal Exams
- CHF Beta Blocker Therapy: LVEF less than 40%

***bonus project***
- Diabetes: Hgba1c poor control
Diabetic Retinal Exams

Our Aim:
Increase the number of completed and documented diabetic retinal exams

Goal: 5% increase
Diabetic Retinal Exams

What did we do?

- We ran a report to identify all of our diabetic patients (459)
- The report was refined to identify those who did not have a retinal exam documented in the EHR over the preceding 12 months (222)
- Chart review was done to confirm this list
  - Some were simply not done
  - Some reports were filed in the EHR but not recorded in a format to allow data extraction/reporting
  - Some exams may have been done but no report received

At baseline: 222 not complete and documented
237 complete and documented (52%)

- Patients due for eye exam were contacted by phone and offer made to schedule exam
Diabetic Retinal Exams

We developed a Visio to map our workflow

1. All Patients w/active DX of Diabeties
2. View report of DM Patients due for retinal eye exam
3. Manual chart review to validate if eye exam was done
4. Contact patient to verify if retinal exam has been done w/in the current year
5. Offer to schedule appointment w/eye care provider
6. Patient declines appointment, Document in chart using Retinal exam result workflow

- Enter result in the EHR using the Retinal Exam result workflow
- Request report from eye care provider
How did we measure change?

- After approximately 3 months, we ran the report again to identify diabetic patients who did not have a retinal exam documented in the EHR over the preceding 12 months (93).

- Those with no documented exam were contacted by phone and offered to scheduled:
  - 25 had been done but no documentation received from eye doctor
  - 68 had not been done
# Diabetic Retinal Exams

## Results

<table>
<thead>
<tr>
<th></th>
<th># Patients</th>
<th>Documented</th>
<th>Not Documented</th>
<th>% Documented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>459</td>
<td>237</td>
<td>222</td>
<td>52%</td>
</tr>
<tr>
<td>3 Month Follow Up</td>
<td>459</td>
<td>366</td>
<td>93</td>
<td>80%</td>
</tr>
</tbody>
</table>

## Improvement

- **Goal**: 5%
- **Actual**: 28%

**Baseline**

- Documented: 237
- Not Documented: 222

**3 Month Follow Up**

- Documented: 366
- Not Documented: 93
What Changes did we implement?

• When diabetic eye exam reports come into office they are recorded on the screening flowsheet in a standardized way that is reportable from EHR

• Letter was developed and sent to all area eye doctors, seeking collaboration to help consistently receive reports back on our diabetic patients

• Re-focus on pre-visit planning
  o additional way to ensure reports are received and recorded
  o improve the number eye exams scheduled for patients when they are in our office
Diabetic Retinal Exams

Lessons Learned

What worked?

• Visio workflow for standardized process
• Pre-visit planning
• Offering to schedule eye appointments for the patients
• Contacting the eye doctors’ offices to foster collaboration (still needs some work)
Lessons Learned

What didn’t work?

• Depending upon patients to schedule their own eye appointment
• Still need more work on collaboration with the eye doctors to ensure we consistently get reports on our patients

What did the team learn?:

Standardized workflow is the key to success!
Illustration #2:
A strategy we tried, using data from our practice EHR in combination with data from the ACO information system to coordinate and improve care for high risk patients.
The Project Focus:
Care Coordination for High Risk Patient Populations

**Goal**: Identify high-risk patient populations and optimize their care through coordination among PCP, CHT, VCCI, and other community agencies.
What did we do?

Assembled our team

<table>
<thead>
<tr>
<th>Role</th>
<th>Team Member</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician Manager</td>
<td>Toby Sadkin, MD</td>
</tr>
<tr>
<td>Nurse Manager</td>
<td>Renee Trombley, LPN</td>
</tr>
<tr>
<td>Office Manager</td>
<td>Sue Bluto</td>
</tr>
<tr>
<td>Community Health Team (CHT)</td>
<td>Heidi Luneau, RN</td>
</tr>
<tr>
<td></td>
<td>Matt Perret, MSW</td>
</tr>
<tr>
<td>Vermont Chronic Care Initiative (VCCI)</td>
<td>Louanne Wood, RN</td>
</tr>
</tbody>
</table>
What did we do?

- Used the OCV Utilization Detail Report to identify patients with the top 5% risk score
- Team went through this list to identify what services were already in place and what additional services might be helpful
- Among all of us, we knew the background on most of the patients
- When additional info was needed:
  - St. A Primary Care able to check practice EHR
  - CHT social worker able to check NCSS records
  - VCCI nurse able to check Medicaid records
- CHT reached out to patients to implement plan
This is what happened....

<table>
<thead>
<tr>
<th>Patient</th>
<th>Diagnosis (Dx)</th>
<th>CHT (VCCI) Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>RD</td>
<td>• IDDM&lt;br&gt;• Retinopathy (severe visual impairment)&lt;br&gt;• Nephropathy (on dialysis)&lt;br&gt;• Neuropathy&lt;br&gt;• Multiple Sclerosis&lt;br&gt;• Depression&lt;br&gt;• Frequent Falls</td>
<td>• Assisted with housing&lt;br&gt;• applications for safer housing&lt;br&gt;• work with current landlord to improve safety in meantime&lt;br&gt;• Collaborated with Dialysis, Choices for Care, FCHH&lt;br&gt;• obtained wheelchair&lt;br&gt;• arranged van transport to dialysis</td>
</tr>
<tr>
<td>AG</td>
<td>• Migraines&lt;br&gt;• Morbid Obesity (s/p gastric sleeve)&lt;br&gt;• Pregnancy&lt;br&gt;• Depression&lt;br&gt;• CHT (VCCI) Intervention:</td>
<td>• Connected with MOMS program&lt;br&gt;• weekly home visits x 3 months&lt;br&gt;• Collaborated with OB, PCP, Neuro on migraine management</td>
</tr>
<tr>
<td>TN</td>
<td>• COPD (severe)&lt;br&gt;• Smoker&lt;br&gt;• Chronic Pain&lt;br&gt;• CHT (VCCI) Intervention:</td>
<td>• Goal setting&lt;br&gt;• Adhere to PCP visits (seeing NP regularly)&lt;br&gt;• Adhere to medications&lt;br&gt;• Adhere to referral visits&lt;br&gt;• assistance with transportation&lt;br&gt;• at times CHT attends appointments&lt;br&gt;• Tobacco cessation (down to 1 cigarette/day)</td>
</tr>
</tbody>
</table>

**ER Visits**
- 2012 – 53
- 2014 – 2
- 2015 – 19
- 2016 - 2

**Smoking**
- 1ppd
- Quit April 2016
This is what happened:

**RD**
- **Dx:**
  - Type 2 DM uncontrolled
  - SVT (multiple ER visits)
  - Asthma
  - Hypertriglyceridemia

- **CHT (VCCI) Intervention:**
  - Healthier Living Workshop (lifestyle changes/wt loss — pt lost 50+#)
  - Helped with techniques to address SVT sx’s (6 ER visit Jan-March 2015; none since)
  - DM education and insulin initiation (HgbA1c from 9% to 6.9%)
  - Helped obtain med for triglycerides

**50# weight loss**

**Hgba1c 9% to 6.9%**

**TG’s 596 to 166**

**WS**
- **Dx:**
  - Type 2 DM uncontrolled
  - SVT (multiple ER visits)
  - Asthma
  - Hypertriglyceridemia

- **CHT Intervention:**
  - Healthier Living Workshop (lifestyle changes/wt loss — pt lost 50+#)
  - Helped with techniques to address SVT sx’s (6 ER visit Jan-March 2015; none since)
  - DM education and insulin initiation (HgbA1c from 9% to 6.9%)
  - Helped obtain med for triglycerides

**DC**
- **Dx:**
  - Type 2 DM uncontrolled
  - Diabetic gastroparesis
  - Migraines
  - Depression
  - (Many ER visits)

- **CHT Intervention:**
  - Coordination with PCP, NCSS, NMC
  - ER social worker
  - NCSS mobile crisis nurse
  - Meds bubble packed
  - Regular PCP visits
  - Regular team meeting including pt (consistent message from all)
  - Careplan for ER (minimize IV meds/fluids, narcotics)
  - ER visits:
    - 2014 – 41
    - 2015- 49
    - 2016 so far - 3

**RP**
- **Dx:**
  - Rheumatoid Arthritis
  - Cervical Radiculopathy
  - Chronic Pain
  - Depression

- **CHT Intervention:**
  - Coordinated with NCSS for mobile crisis unit services
  - Connected with regular counseling
  - Helped with budget planning so able to cont. water exercise after PT benefits ran out
  - Helped obtain dentures
  - Healthier Living Workshop re: living with chronic pain
  - NCSS insomnia workshop
  - Regular meetings with CHT every 1-2 wks. to assess needs
This is what happened....

**Day 1: Track 3 – Measuring Care, Quality and Outcomes with Data**

**TD**
- **Dx:**
  - Seizure Disorder
  - Depression
  - Morbid Obesity

- **CHT Intervention:**
  - Connected with mental health counselor
  - Assisted with paperwork for financial assistance for housing/utilities/food
  - Coordinated transportation for PT
  - Coordinated care with DHMC Neuro-epilepsy clinic
  - Dietary counseling re: wt loss

**AB**
- **Dx:**
  - IDDM
  - Diabetic Nephropathy (s/p renal transplant)
  - Factor V Leiden Mutation
  - Depression
  - Bladder incontinence
  - (Had not been compliant with PCP or specialty visits and recommendations)

- **CHT Intervention:**
  - Connected with counseling
  - Assisted in getting to PT for bladder incontinence therapy
  - Clarified med list and educated on meds
  - Education/encouragement on diabetic compliance
  - Re-connected with Hematology for f/u on Factor V Leiden management
  - Connected with Voc Rehab

**DT**
- **Dx:**
  - ADD/ODD

- **CHT (VCCI) Interventions:**
  - Collaboration among VCCI, NCSS (including school-based services), DCF, PCP

**Out of control**

**Much Improved!!!**
What did we find out?

Benefits:
We were able to make some positive impacts (would not have been possible without CHT and VCCI)

Challenges:
So much to do,
So little time....
(and resources and funds are limited)
Lessons Learned So Far

- It takes a village... and a community
Next Steps

• Continue to use our collaborative model to look at additional high risk populations
  - many ways to filter the list
  - many projects to consider

• Use the OCV Beneficiary Report ...and upcoming new care coordination systems to improve the process
Measuring Care, Quality and Outcomes with Data

Leah Fullem, MHCDS- Director of Informatics
OneCare Vermont
Accountable Care Organization
What is OneCare Vermont?

- Statewide Network Composition:
  - 3,000 providers
  - 115,000 attributed lives
  - Full continuum of care:
    - Primary and specialty care
    - Hospitals
    - Home health; mental health; substance abuse treatment; long term care;
      Support and Services at home (SASH);
      area agency on aging

- Programs:
  - Medicare Shared Savings Program (SSP) since 2013
  - SSPs for Vermont Medicaid and Blue Cross since 2014
OneCare’s Informatics Strategies

- **Align health informatics with the provider network**, optimizing technology to manage provider, performance, outcomes, accountability, and transparency of data.

- **Identify and prioritize care gaps**, assessing utilization and risk stratification data to identify at-risk patients in greatest need of point-of-care intervention.

- **Provide an efficient care coordination platform**, supporting information continuity across settings and caregivers to enable seamless, scalable care management activities across the delivery network.

- **Monitor and learn from results**, providing contract-specific performance data to track utilization and outcomes for each defined population a provider manages.
How does OneCare use Data to Improve Care?

- OneCare is providing support to Vermont providers to improve care coordination, facilitate quality improvement, and provide important information and analysis in these ways:
  - Integrating claims and clinical data in a comprehensive informatics platform
  - Developing and providing sophisticated analytic tools
  - Strengthening Community Collaboratives by providing resources, data analytics, and QI support
  - Engaging the Top 5% of high utilizers in care coordination activities
  - Facilitating communication & comprehensive integrated care coordination (i.e. Care Navigator, RWJF Grant)
Supporting Integrated Care Management and QI

**Data Sources**
- Claims Data
- Clinical Data (HIE and direct EMR feeds)
- OneCare Data Warehouse & Analytics Platform

**Data Access**
- Accessible by Care coordinators in the continuum of care and patients
- Accessible using pc and mobile devices

**Outputs**
- Care Coordinator and Patient work on assessment and build shared care plan
- Assessment
- Care Plan

**Data Access Outputs**
- Analytic tools to support QI

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Day 1: Track 3 – Measuring Care, Quality and Outcomes with Data
Transforming Complex Care Grant

- Robert Wood Johnson Foundation: May 2016 – May 2018
- Four Communities: Bennington, Berlin, Burlington, and St. Albans
- Supports communities to:
  - Refine and expand approaches to providing care coordination for patients with complex care needs
  - Build upon and expand the work of the Integrated Communities Care Management Learning Collaborative (ICCMLC)
  - Use high risk patient lists to identify individuals in need of care coordination and work to engage in cross organization care coordination activities
  - Inform the development and rollout of tools for Care Navigator, informing the successful deployment and future enhancements
Analytic tools to support Quality Measurement

ACO 27 2016 - Diabetes Mellitus: Hemoglobin A1c

Percentage of patients 18-75 years of age with diabetes who had hemoglobin A1c > 6.0%, the most recent HbA1c result is missing, or if there are no HbA1c tests performed and results documented during the measurement period.

**Measure Reason**
- Good Control
- Incorrect Code
- Missing Information Due to Timing
- No Data Found
- No Data in Measurement Period
- Non-Numeric Result Value
- Non-Standard Code in Measurement
- Poor Control

**Data Source**
- DHNC EPIC
- Henry
- No Data Available
- UVM MC EPIC
- VITL

**Measure Reason Detail**

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<tr>
<th>Patient Name</th>
<th>Attributed TIN</th>
<th>Provider Name</th>
<th>Data Reason</th>
<th>Result Date</th>
<th>Code</th>
<th>Result Value</th>
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<td>Central Vermont Medical Center, Inc.</td>
<td>ROBIESEN, ROBERT D</td>
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<td>Michael J. Corrigan, MD PC</td>
<td>CORRIGAN, MICHAEL J</td>
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<td>JACOBS, ALICIA A</td>
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**History**

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<th>Patient Name</th>
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<th>Code</th>
<th>Code Description</th>
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The ability to provide comprehensive and real-time clinical information to every care provider is an essential requirement of a system designed to provide better care and reduce costs.

There’s a lot more work to be done.