From Volume to Value

Sharon Sanders, RN, BSN, MBA, MHA
Vice President, Clinical Integration
Carroll Hospital
Carroll Hospital, a LifeBridge Health center, is a nonprofit hospital centrally located in the county seat of Westminster, Maryland, providing preventative and medical care for people in every stage of life. The hospital is governed by a community board of directors in partnership with the LifeBridge Health board of directors.

<table>
<thead>
<tr>
<th></th>
<th>1961</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beds</td>
<td>50</td>
<td>193</td>
</tr>
<tr>
<td>Physicians</td>
<td>6</td>
<td>400+ in 38 specialties</td>
</tr>
<tr>
<td>Employees</td>
<td>125</td>
<td>2,025—2nd largest local employer in Carroll County</td>
</tr>
<tr>
<td>Emergency Visits</td>
<td>300</td>
<td>53,302</td>
</tr>
<tr>
<td>Admissions</td>
<td>2,773</td>
<td>14,813</td>
</tr>
<tr>
<td>Births</td>
<td>552</td>
<td>1,079</td>
</tr>
<tr>
<td>Inpatient &amp; Outpatient Surgeries</td>
<td>n/a</td>
<td>7,676</td>
</tr>
<tr>
<td>Cancer Center</td>
<td>n/a</td>
<td>18,710</td>
</tr>
<tr>
<td>Hospice Admissions</td>
<td>n/a</td>
<td>1,078</td>
</tr>
<tr>
<td>Hospital-Owned Private Practices</td>
<td>n/a</td>
<td>60 providers in 11 specialties through Carroll Health Group</td>
</tr>
<tr>
<td>Total Patient Encounters</td>
<td>More than 3,500</td>
<td>More than 460,000</td>
</tr>
</tbody>
</table>
• The goal of the TPR Agreement was to incentivize hospitals to provide high quality and reduce utilization

• **TPR revenue is 100% fixed, regardless of:**
  - Inpatient/Outpatient mix
  - Increases or decreases in volumes
  - Changes in case mix

• The majority of the TPR hospitals’ revenue capital was established on the FY 2010 revenue base
  - Transition funding based on historical volume and case mix growth
  - Some hospitals received additional adjustments in July 2011 to increase the TPR budget related to the opening of new services already planned

Since the hospital’s revenue base is fixed, TPR encourages cost-effective delivery of care
Mixed Results

• Among the lowest readmission rates in the state
• Improved PPC and high utilizers
• Enhanced HCAHPS
• Fixed revenue challenges
We Are Making Progress...

- Inpatient Admissions 33%
- Readmissions 25%
- Number of patients readmitted three times or more per year with Behavioral Health diagnosis – 42%
- SNF Readmissions – 20%
- ED Use Rates – 4%
- ED Admissions – 9.7%
- Chronic Heart Failure – 27%
- Adults who smoke – 19%
- Age-adjusted deaths from diabetes – 13%
# Carroll Healthy Vital Signs

## Indicator

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>DATA</th>
<th>TRENDS</th>
<th>TARGET &amp; Target Source</th>
</tr>
</thead>
</table>

### Obesity

1. % of adults who are overweight or obese: 61.6% (2013), 69.3% (2014)
   - Desired trend: Downward
   - Target Source: CB-HIP SHIP 2014 Healthy People 2020 ACS 2015

2. % of low-income preschool students who are obese: 14.4% (2010), 14.6% (2011)
   - Desired trend: Downward
   - Target Source: None.

3. % of adults who consume recommended amounts of fruits/vegetables: 24% (2009), 20.6% (2010)
   - Desired trend: Upward
   - Target Source: None.

### Diabetes

1. % of adults with diabetes: 7.5% (2013), 9.8% (2014)
   - Desired trend: Downward
   - Target Source: None.

2. Age-adjusted death rate due to diabetes - rate per 100,000: 12.6 (2013), 12.0 (2014)
   - Desired trend: Downward
   - Target Source: None.

3. Acute admissions and readmissions at CH for diabetes: 1.25% (2014), 1.52% (2015)
   - Desired trend: Downward
   - Target Source: None.

   - Desired trend: Upward
   - Target Source: None.

### Heart Disease and Stroke

1. % of adults with high blood pressure: 30.7% (2011), 32.2% (2013)
   - Desired trend: Downward
   - Target Source: None.

2. % of adults with high cholesterol: 33.8% (2011), 40.9% (2013)
   - Desired trend: Downward
   - Target Source: None.

3. Age-adjusted death rate due to CVA (stroke) - rate per 100,000: 44.8 (2013), 42.2 (2014)
   - Desired trend: Downward
   - Target Source: None.

4. Age-adjusted death rate due to heart disease - rate per 100,000: 171.9 (2013), 178.2 (2014)
   - Desired trend: Downward
   - Target Source: None.

### Mental Health & Substance Abuse (Behavioral Health)

   - Desired trend: Downward
   - Target Source: None.

   - Desired trend: Upward
   - Target Source: None.

   - Desired trend: Downward
   - Target Source: None.

4. # of patients re-admitted to CH inpatient unit 3+ times / year for Behavioral Health diagnosis: 39 (2014), 41 (2015)
   - Desired trend: Downward
   - Target Source: None.

5. % of adults with self-reported good mental health: 72.7% (2013), 76.2% (2014)
   - Desired trend: Upward
   - Target Source: None.

6. % of people 12+ who use pain relievers for non-medical reasons (north central Maryland): 4.1% (2010), 3.8% (2012)
   - Desired trend: Downward
   - Target Source: NCHS.

7. % of adults who smoke tobacco: 19.4% (2013), 17.3% (2014)
   - Desired trend: Downward
   - Target Source: NCHS.
## Carroll Healthy Vital Signs

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>DATA</th>
<th>TENDENCY</th>
<th>TARGET &amp; TARGET SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cancer</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. % of women 50+ in compliance with the mammogram recommendations of the American Cancer Society</td>
<td>87.3% (2012)</td>
<td>78.1% (2014)***</td>
<td>Upward 90%</td>
</tr>
<tr>
<td>2. Breast cancer early stage diagnosis</td>
<td>89.0% (2014)</td>
<td>87.7% (2015)</td>
<td>Upward 80%</td>
</tr>
<tr>
<td>3. % of adults in compliance with colon cancer screening recommendations of the American Cancer Society</td>
<td>79.2% (2012)</td>
<td>71.3% (2014)</td>
<td>Upward 75%</td>
</tr>
<tr>
<td>4. Colon cancer early stage diagnosis</td>
<td>50.0% (2014)</td>
<td>42.0% (2015)</td>
<td>Upward 38%</td>
</tr>
<tr>
<td>6. # of people educated on the importance of protective measures against skin cancer</td>
<td>2,711 (2014)</td>
<td>2,293 (2015)</td>
<td>Upward 1,883</td>
</tr>
<tr>
<td>7. Melanoma incidence - rate per 100,000</td>
<td>32.2 (2011)</td>
<td>32.2 (2012)</td>
<td>- Downward 24.8</td>
</tr>
</tbody>
</table>

**Lack of Exercise (Physical Activity)**

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>DATA</th>
<th>TENDENCY</th>
<th>TARGET &amp; TARGET SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. % of adults who engage in moderate physical activity *</td>
<td>29.6% (2009)</td>
<td>33.6% (2010)</td>
<td>Upward *</td>
</tr>
<tr>
<td>2. % of adults who engage in regular physical activity (150 min. moderate or 75 min. vigorous)</td>
<td>50.2% (2012)</td>
<td>52.3% (2013)</td>
<td>Upward 47.9%</td>
</tr>
</tbody>
</table>

**Access to Health Care**

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>DATA</th>
<th>TENDENCY</th>
<th>TARGET &amp; TARGET SOURCE</th>
</tr>
</thead>
</table>

**Elder Health**

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>DATA</th>
<th>TENDENCY</th>
<th>TARGET &amp; TARGET SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. % of adults 65+ who received a flu shot</td>
<td>62.7% (2013)</td>
<td>62.2% (2014)</td>
<td>Upward 90%</td>
</tr>
<tr>
<td>2. % of adults 65+ with diabetes</td>
<td>23.3% (2013)</td>
<td>18% (2014)</td>
<td>Downward 26.4%</td>
</tr>
<tr>
<td>3. Acute admissions to CH of adults 65+ for diabetes</td>
<td>0.89% (2014)</td>
<td>1.34% (2015)</td>
<td>Downward 1.0%</td>
</tr>
<tr>
<td>4. % of adults 65+ with high blood pressure</td>
<td>56.5% (2011)</td>
<td>60.2% (2013)</td>
<td>Downward 26.9%</td>
</tr>
<tr>
<td>5. % of adults 65+ with high cholesterol</td>
<td>47.5% (2011)</td>
<td>56% (2013)</td>
<td>Downward 13.5%</td>
</tr>
</tbody>
</table>
## Successful Strategies

### CARE COORDINATION
- Care Management re-design
- ED RN Case Management – 24/7
- Pharmacists in ED doing Medication Reconciliation
- Hospice/palliative care expansion
- Expanding Home Care resources to address dramatic increase in visits
- Behavioral Health focus
- Diabetic services in the community
- PCMH

### SAFETY & QUALITY
- Medication delivery to bedside
- Discharge patients with medications in hand
- Discharge planning to cover patients until they see their primary care provider – connecting patients to services they need post discharge
- Patient Safety Rounds
Operational Challenges

- Address high utilizers with multiple co-morbidities
- Maintain market share while reducing admissions
- Expand primary care access
- Focus on unnecessary utilization and appropriateness of admissions
- Decide what to do with volume growth programs
- Educate the internal stakeholders on the changes in care delivery
- Meet the challenge of health care change by reshaping the community’s approach to seeking care
Ongoing Challenges

- Use rates are still too high
- LOS has crept back up in some hospitals due to more complex patients
- Misaligned incentives with physicians
- Although improvements have occurred in the overall health of our population, much work still needs to be done
- Many social issues exist among our residents and patients; our hospitals have become the safety net for their regions
What’s Next?  
Creating More Value

• Adding community care coordination in primary care clinics and physician offices
• Using home monitoring technology linked through Home Care & Care Coordination
• Expanding SNF Care Transition Coordinator – Hospitalist consult
• Creating dedicated Palliative Care programs
• Some are establishing Accountable Care Organizations and Physician Hospital Organizations to align physicians
• Forming a Clinically Integrative Network with our physicians and other partners
In the last several years, Carroll Hospital has become a very different organization by focusing on a value-based care delivery system and one that has been able to embrace the components of the triple aim of health care reform.

It wasn’t easy in the beginning, but we are all now much better positioned for a challenging health care future.