Triad HealthCare Network

Agenda

• Why the need for ACOs?
• THN – Structure and Contracts
• Evolution towards Risk and Next Gen ACO
• THN Performance to date
• Population Health Strategies to Manage Risk
• Lessons Learned along the way
• Vision for the Future
United States per capita healthcare spending is more than twice the average of other developed countries.

**Healthcare Costs per Capita (Dollars)**

- **Italy:** $3,207
- **U.K.:** $3,971
- **Japan:** $4,152
- **Australia:** $4,177
- **France:** $4,367
- **Canada:** $4,506
- **Sweden:** $5,003
- **Germany:** $5,119
- **Switzerland:** $6,787
- **United States:** $9,024
- **OECD Average:** $3,620

**SOURCE:** Organization for Economic Cooperation and Development, OECD Health Statistics 2016, June 2016. Compiled by PGPF.

**NOTE:** Data are for 2014 or latest available. Chart uses purchasing power parities to convert data into U.S. dollars.

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Exhibit 1. Health Care Spending as a Percentage of GDP, 1980–2013

Notes: GDP refers to gross domestic product. Dutch and Swiss data are for current spending only, and exclude spending on capital formation of health care providers.
Source: OECD Health Data 2015.
Total U.S. health spending (both public and private) is projected to rise to one-fifth of the economy by 2025.

**National Health Expenditures (% of GDP)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual</th>
<th>Projected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>17%</td>
<td>19%</td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td>20%</td>
</tr>
<tr>
<td>2025</td>
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</tbody>
</table>

Although the United States spends more on healthcare than other developed countries, its health outcomes are generally no better.

**Health Status**

**Life Expectancy at Birth**
- South Africa
- Switzerland
- U.S.

**Infant Mortality**
- India
- Iceland
- U.S.

**Quality of Primary Care**

**Unmanaged Asthma**
- Slovak Republic
- Italy
- U.S.

**Unmanaged Diabetes**
- Hungary
- Italy
- U.S.

**Quality of Acute Care**

**Safety During Childbirth**
- Switzerland
- Poland
- U.S.

**Heart Attack Mortality**
- Mexico
- Australia
- U.S.


NOTE: Data are not available for all countries for all metrics; all published data are shown. Data are for 2013 or latest available.
“Every system is perfectly designed to get the results it gets.”

- Paul Batalden, M.D.
Dartmouth Medical School

“If we keep doing what we have been doing, we'll keep getting what we've always gotten”—an expensive, high-tech, inefficient health-care system. "The health-care system needs to be redesigned."

Dartmouth Medicine, Spring 2006
Triad HealthCare Network
Two Roads....

Cuts

Realign Incentives through Reform
Triad HealthCare Network
Founding principles

• Empower physicians to lead and drive healthcare transformation
• Engage physicians to develop new, value-based models of care
• Provide resources to physicians to meet the growing demands of accountability and transparency
• Create greater collaboration and trust among physicians, hospitals, patients and payers
• Establish our brand as a clinically integrated system of care delivering superior value measured by high quality outcomes, affordability, and exceptional customer experience
Mission Statement:
We empower healthcare professionals to manage time, change, and complexity to deliver exceptional care.

What We Do: We provide tools, resources, and expertise to manage new reporting requirements and payment methods while improving quality and controlling costs of patient care.
Commander’s Intent:
THN exists to lower the cost of care and improve the quality/outcomes of the populations we manage.
Triad HealthCare Network
Structure and Membership (as of October 2017)

• 1,200+ Affiliated physicians representing 100+ entities across four counties
  – 500 employed by Cone/ARMC
  – 60% independent community physicians
  – 30+ EHR platforms

• 400+ Primary Care Physicians (Adult and Peds)

• Facilities
  – 6 Hospitals - 1,342 Acute Care Beds
  – 2 Ambulatory Surgery Centers - 187 beds
  – 2 Nursing Homes
  – 2 Freestanding Ambulatory Care Campuses, Inc a Freestanding ED
### Triad HealthCare Network

**Current Contracts (as of October 2017)**

<table>
<thead>
<tr>
<th>Contract Name</th>
<th>Patients</th>
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</thead>
<tbody>
<tr>
<td>Next Generation ACO</td>
<td>32,000</td>
</tr>
<tr>
<td>Cone Health employees/dependents</td>
<td>18,000</td>
</tr>
<tr>
<td>Cigna Accountable Care Collaborative</td>
<td>9,500</td>
</tr>
<tr>
<td>United Medicare Advantage</td>
<td>11,000</td>
</tr>
<tr>
<td>Humana Medicare Advantage</td>
<td>11,000</td>
</tr>
<tr>
<td>HealthTeam Advantage PPO MA</td>
<td>12,000</td>
</tr>
</tbody>
</table>

**Total Patients:** 93,500

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1. One of 44 ACOs in the country selected by CMS; Take 100% risk
2. Provide case management, disease management, wellness services
3. Commercial Shared Savings Agreement
4. 100% Risk Agreement – non-capitated
5. Take full global capitated risk on 10,000 Humana HMO Gold members; Shared savings agreement on 1,000 Humana Medicare Advantage PPO
6. Take full global capitated risk risk; Cone-based MA plan launched 1/1/16

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Triad HealthCare Network
Value for Physicians

- THN to provide value-added services and resources to assist practices
  - IT resources to support population management
  - Patient Engagement Tools
  - Care Management team
  - Coding assistance and education
  - Assistance to achieve Patient-Centered Medical Home recognition
  - Submission of quality measures for the Physician Quality Reporting System (PQRS)
  - Qualification as an Advanced Alternative Payment Model
  - Joint contracting for quality/cost savings incentive plans with payers
Triad HealthCare Network
Evolution Towards Risk Summarization

- **2012/2013** – MSSP Year 1- Shared Savings
- **2014** – MSSP Year 2; Began relationship with North Texas Specialty Physicians (NTSP)
- **2015** – MSSP Year 3; Global Risk for Humana MA HMO
- **2016** – Next Generation ACO Program; Humana MA HMO; HealthTeam Advantage PPO products
- **2017** – Next Generation ACO Program; Humana MA HMO; United MA HMO; HealthTeam Advantage PPO products
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Medicare Shared Savings Program: Challenges

- **Beneficiary Alignment** – Retrospective, Plurality of E&M Codes, includes Specialists, varies quarterly, final list unknown until last quarter

- **Timeliness of Data** – Receive quarterly reports and membership changes months after the fact, e.g., 2nd quarter received in Nov

- **Short term “shelf life”** – benchmark is historical which factors in savings generated; increases difficulty to earn savings

- **Minimum Savings Rate** - Can generate savings, but get no “share”

- **Difficult to achieve savings in already efficient areas** – historical benchmarks are lower ($8,600 THN versus $11,750 Houston)

- **Savings amounts limited** (50%-60%) and significantly impacted by quality scores
Next Generation ACO Program

- NGACO Program began in 2016 as part of Center for Medicare/Caid Innovation (CMMI) (18 ACOs)
- Tests theory whether strong financial incentives, coupled with tools to support better patient engagement and care management, can improve health outcomes and lower expenditures
- Annual Benchmark based on 2014 claims experience and trended for National & Regional factors
- 100% upside and downside risk
- Have to report on 33 Quality Metrics
- Special Waivers
ACO determines a percentage reduction to the base FFS payments of its Next Generation Participants and Preferred Providers for care supplied to Next Generation PY-aligned beneficiaries.

PBP-participating Next Generation Participants and Preferred Providers must agree in writing to the percentage reduction.

CMS will pay the projected total annual amount taken out of the base FFS rates to the ACO in monthly payments.
PBP Preferred Providers

• Skilled Nursing Facilities (SNF)
  – Total SNFs Participating: 30 Contracted
    • 21 Available for SNF Waiver

• Home Health Agencies (HHA)
  – Total HHAs Participating: 6 Contracted
**Triad HealthCare Network**

**MSSP vs NextGen ACO**

- **Benchmark:**
  - *Next Gen uses experience for 2014*, which was a high expenditure year for THN and projects forward.
  - *MSSP Track 3 uses a weighted experience of three years*, with shared savings added back in; 2013 was a favorable year, with low expenditures, even with earned shared savings added resulting in a lower benchmark.

- **Risk Scores:** NextGen allows up to a 3% increase in benchmark due to risk scores; MSSP only adjusts downward.

- **Regional Trends:**
  - *Next Generation benchmark uses national trends, adjusted for regional performance.*
  - These trends would be much higher than the assumed ACO trend, thus favoring NextGen compared to MSSP.

- **Projections:**
  - All projections favored NextGen over MSSP Track 3
THN Performance
To date
Triad HealthCare Network
MSSP Performance

• Performance: $25M saved through PY2 (2014)
  – PY1: July 2012 - December 2013 (18 months)
    Historical Benchmark $463,194,583
    Actual Performance $441,688,961
    Savings of 4.6%: $ 21,505,622
  – PY2: January 2014 – December 2014
    Historical Benchmark $307,105,802
    Actual Performance $303,532,135
    Savings of 1.16%: $ 3,573,667

• Financial Performance: 2015
  – PY3: January 2015 – December 2015
    Historical Benchmark $316,422,097
    Actual Performance $316,528,097
    Over budget: $ -105,754
## 2015 MSSP Quality Performance

<table>
<thead>
<tr>
<th>Domain</th>
<th>Points Earned without Quality Improvement Points</th>
<th>Total Possible Points</th>
<th>Quality Improvement Points</th>
<th>Points Earned</th>
<th>Domain Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient/Caregiver Experience</td>
<td>15.4</td>
<td>16</td>
<td>0.48</td>
<td>15.88</td>
<td>99.25%</td>
</tr>
<tr>
<td>Care Coordination/Patient Safety</td>
<td>20.5</td>
<td>22</td>
<td>1.8</td>
<td>22</td>
<td>100%</td>
</tr>
<tr>
<td>Preventive Health</td>
<td>14.2</td>
<td>16</td>
<td>2.24</td>
<td>16</td>
<td>100%</td>
</tr>
<tr>
<td>At Risk Population</td>
<td>10.95</td>
<td>12</td>
<td>2.24</td>
<td>12</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td><strong>61.05</strong></td>
<td><strong>66</strong></td>
<td><strong>6.76</strong></td>
<td><strong>65.88</strong></td>
<td><strong>99.81%</strong></td>
</tr>
</tbody>
</table>

92%!!

Before Improvement Points

2013: 74%
2014: 85%
2015: 92%
Top MSSP ACOs in quality, shared savings for 2015

The following ACOs were top performers in terms of quality for 2015, with several ties putting the list at eleven total organizations.

1. Accountable Care Coalition of Greater Augusta & Statesboro (Albany, Ga.) — 100 percent
2. Rio Grande Valley Health Alliance (McAllen, Texas) — 100 percent
3. Southern Kentucky Health Care Alliance (Smiths Grove) — 100 percent
4. Coastal Medical (Providence, R.I.) — 100 percent
5. Triad HealthCare Network (Greensboro, N.C.) — 99.81 percent
6. Tidewater Accountable Care Organization (Newport News, Va.) — 99.53 percent
7. Collaborative Health ACO (Natick, Mass.) — 99.53 percent
8. Alexian Brothers ACO, renamed AMITA Health ACO (Arlington Heights, Ill.) — 99.53 percent
9. Reliance ACO (Farmington Hills, Mich.) — 99.51 percent
10. ProHealth Physicians ACO (Farmington, Conn.) — 99.34 percent
11. Billings (Mont.) Clinic — 99.34 percent
### 2016 Next Generation ACO Results

<table>
<thead>
<tr>
<th>ACO Name</th>
<th>Total Aligned Beneficiaries¹</th>
<th>Total Benchmark Expenditures²,³</th>
<th>Total Actual Expenditures for Aligned Beneficiaries</th>
<th>Total Benchmark Expenditures Minus Total Aligned Beneficiary Expenditures⁴</th>
<th>Total Benchmark Minus Aligned Beneficiary Expenditures as % of Total Benchmark⁵</th>
<th>Earned Shared Savings Payments/Owe Losses⁶</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baroma</td>
<td>26,839</td>
<td>$409,714,191</td>
<td>$394,083,864</td>
<td>$15,630,327</td>
<td>3.8%</td>
<td>$12,254,177</td>
</tr>
<tr>
<td>THN</td>
<td>27,780</td>
<td>$265,825,827</td>
<td>$254,870,817</td>
<td>$10,955,011</td>
<td><strong>4.1%</strong></td>
<td><strong>$10,735,910</strong></td>
</tr>
<tr>
<td>Iowa Health</td>
<td>67,919</td>
<td>$615,801,716</td>
<td>$602,373,441</td>
<td>$13,428,275</td>
<td>2.2%</td>
<td>$10,527,767</td>
</tr>
</tbody>
</table>

- THN was **number two (2)** in country for Total Shared Savings with a Savings Of **$10.7 Million**!
- THN was number (1) in the country for Total Savings Percentage with a savings rate of **4.1%**!
  - (Note that the #1 NGACO had a benchmark of over $15,000 as compared to ours, which was about $9,500.)
THN Secret Sauce
Sample Clinical Decision Support at the Point-of-Care

Diagnoses and Meds are prioritized to highlight chronic conditions.

Labs, Calculations and Diagnostic Procedures pertinent to the Action Items are displayed for easy reference.

Action Items and Goals are highlighted for quick reference and visibility.

Targeted reminders for nursing staff allow better leverage of provider time and more efficient workflow.

### Patient Recommendation Report

**Diagnoses**

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypertension</td>
<td>711.9</td>
</tr>
<tr>
<td>3rd Stage chronic</td>
<td>711.5</td>
</tr>
<tr>
<td>Hyperlipidemia</td>
<td>E76.5</td>
</tr>
<tr>
<td>Hypertension</td>
<td>405.0</td>
</tr>
<tr>
<td>Acute kidney failure</td>
<td>403.0</td>
</tr>
<tr>
<td>Urinary tract</td>
<td>N06.1</td>
</tr>
<tr>
<td>Hypothyroidism</td>
<td>249.0</td>
</tr>
<tr>
<td>Acute renal failure</td>
<td>N11.1</td>
</tr>
<tr>
<td>UTI</td>
<td>N13.1</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>272.4</td>
</tr>
<tr>
<td>Calcium</td>
<td>264.0</td>
</tr>
<tr>
<td>Apo B</td>
<td>205.0</td>
</tr>
<tr>
<td>Apo A</td>
<td>205.0</td>
</tr>
</tbody>
</table>

**Medications**

<table>
<thead>
<tr>
<th>Medication</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspirin</td>
<td>325 mg</td>
</tr>
<tr>
<td>Acetaminophen</td>
<td>500 mg</td>
</tr>
<tr>
<td>Pantoprazole</td>
<td>40 mg</td>
</tr>
</tbody>
</table>

**Findings, Measures, and Calculations**

<table>
<thead>
<tr>
<th>Finding</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP</td>
<td>141/68</td>
</tr>
<tr>
<td>Weight</td>
<td>87 lbs</td>
</tr>
<tr>
<td>BMI</td>
<td>34.10</td>
</tr>
</tbody>
</table>

**Procedures, Screenings, and Tests**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mammogram</td>
<td>10/15</td>
</tr>
<tr>
<td>Diabetic Foot Exam</td>
<td>N/D</td>
</tr>
<tr>
<td>Diabetic Exam</td>
<td>N/D</td>
</tr>
</tbody>
</table>

**Laboratory Values**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Total Cholesterol</td>
<td>150 mg</td>
</tr>
<tr>
<td>Triglycerides</td>
<td>150 mg</td>
</tr>
<tr>
<td>HDL</td>
<td>60 mg</td>
</tr>
<tr>
<td>LDL</td>
<td>110 mg</td>
</tr>
</tbody>
</table>

**Clinical Decision Support**

- Lab results for quick reference and visibility.
- Targeted reminders for nursing staff.
- Highlighted chronic conditions and prioritized diagnoses.
- Easy reference for lab, calculation, and diagnostic procedures.
Triad HealthCare Network
2016 Projects to Manage Cost/Quality

- Congestive Heart Failure (CHF) patients
- COPD patients
- Sepsis (diagnosis, treatment, prevention)
- Transitions of Care (Inpatient to Outpatient)
- End of Life Planning
- Quality Metrics (HEDIS and Stars)
- Out of Network Utilization
- Skilled Nursing Facility Utilization
- Appropriate Coding (management of Risk Adjustment Factor (“RAF”))
ReDS™ Technology To Decrease Cost Of Heart Failure

**Worldwide**
- 19 Million People, 1 Million Hospitalizations
  - Increased Prevalence Among The Elderly
- Cost: $108 Billion Annually

**United States**
- 5.7 Million People
  - Significantly Impacts *Quality Of Life*
- Cost: $32 Billion Annually, Direct & Indirect

**Triad HealthCare Network**
- 4,000 Patients And Highest Cost ICD
- Cost $85M+ In Claims
  - Readmission Rate 19.6% And 90% Of HF Patients That Go To ED Get Admitted
“Lung Water Matters”

- HF Causes Fluid To Build Up In The Lungs Resulting In Severe Shortness Of Breath
  - Decrease Quality Of Life For Patients
  - Difficult For Provider To Assess
  - #1 Reason HF Patients Go To The Hospital

- No Standard Way To Measure The Amount Of Fluid In The Lungs
  - Chest X-Ray
  - Invasive Implantable Devices
  - Clinical Assessment

- Fairly Easy To Treat (Diurese) But No Standard Way To Measure When The Lungs Are “Dry”
Technology & Product

Radar (RF) monitoring and imaging technology
Military see-through-wall technology

ReDS™ System Technology

Cleared for market at the USA

www.TriadHealthCareNetwork.com
## ReDS Success at THN

<table>
<thead>
<tr>
<th>Location</th>
<th>Purpose</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharge From Moses Cone</td>
<td>Determine if patients are being discharged still congested</td>
<td>33% of patients discharged from Moses Cone are still volume overloaded</td>
</tr>
<tr>
<td>Advanced Heart Failure Clinic</td>
<td>Provider assessment</td>
<td>(200 Pts) HF specialist correct at assessment 77% of the time</td>
</tr>
<tr>
<td>ARMC ED</td>
<td>Determine moderate congestion and treat in ED</td>
<td>Only 14% of HF patients presenting to ED are moderately congested</td>
</tr>
<tr>
<td>Skilled Nursing Facility</td>
<td>Avoid Admits from SNF with vest</td>
<td>10 assumed avoided admissions in 6 months</td>
</tr>
<tr>
<td>Home Health Setting (Randolph)</td>
<td>Avoid Readmissions</td>
<td>55 patients with 18 avoided admits; decreased readmits from 23% to 8%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Avoided CMS penalty for 2016</td>
</tr>
</tbody>
</table>
Questions We Wanted To Answer

• Are We Discharging HF Patients From The Hospital who Still Have Fluid In Their Lungs?
  • YES

• Can This Device Be Utilized For Individual Patients At The Point Of Care, Rather Than One Patient / Vest?
  • YES

• Can The Vest Prevent An Admission Once Symptoms Begin?
  • YES

• Can We Keep Patients Out Of The Hospital By Utilizing This Technology?
  • YES

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ROI

Initial $100K Investment In August 2016

• 25 Assumed Avoided Admissions At $10K = $250K Savings

• Rural Hospital Penalized 3 Years For HF Readmissions, Avoided $800K Penalty In 2016

• ReDS™ Reading At Discharge May Help Identify The High Risk HF Patient

• Decrease average all cause HF Readmissions from 19.6% to 15.1% at Moses Cone Hospital

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THN Sepsis Project Objectives

• THN and Cone Health will develop a standardized, system-level approach for sepsis care that is both effective and sustainable in order to:
  • Reduce mortality for all coded sepsis patients
  • Reduce post-op sepsis
  • Appropriately and quickly identify sepsis “present on admission”, as well as identify sepsis in Inpatients to reduce healthcare acquired conditions

• Project Scope:
  • Adults >18 presenting to the ED or IP units at all Cone Health facilities with Pilot focus at Moses Cone Hospital
Sepsis Project Data Analysis

• Primary Metric One Analysis
  ▪ Overall Mortality reduced from 14% system wide to 10% which is top decile by end of FY 2016 (9/30/2016)
  ▪ Rate observed as of 9/30/2016 has fallen from 14% to 11.5% and continuing to decrease
  ▪ Comparison of actual cases since interventions began in April 2016:
    ▪ October 2015 – March 2016 = 12.7% mortality
    ▪ April 2016 – September 2016 = 10.3% mortality

  ▪ 19% drop in mortality since April 2016!!!

• Primary Metric Two Analysis
  ▪ Increase CMS Sepsis Bundle Compliance to 34%, reducing mortality rate by at least 15% per CMS guidelines by end of FY ’16 (September 30, 2016)
  ▪ Bundle Compliance rate as of 9/30/2016 has increased from 15% to 33% and continuing to climb
  ▪ Comparison of actual cases since interventions began in April 2016:
    ▪ October 2015 – March 2016 = 24.2% compliance
    ▪ April 2016 – September 2016 = 38.0% compliance

  ▪ 36% increase in bundle compliance since April 2016!!!
Cone Health System Sepsis Dashboard

**Project Goal:** Reduce overall mortality system wide for all coded sepsis from 14% to 10% (Top Decile)

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<tbody>
<tr>
<td>Overall Sepsis Mortality Rate Observed</td>
<td>10.4% 16.1% 14.4% 13.8% 11.5% 10.6% 9.7% 11.7% 10.4% 11.6% 8.8% 9.3%</td>
<td>11.5% 10.0%</td>
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<tr>
<td>Mortality Severe/Shock Observed</td>
<td>20.8% 20.8% 29.9% 30.8% 24.4% 23.8% 26.6% 30.0% 30.4% 29.3% 24.0% 23.0%</td>
<td>27.1% 21.3%</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Mortality Severe/Shock O/E</td>
<td>0.84 1.03 1.04 1.00 0.91 0.83 0.95 1.06 1.17 1.15 0.84 0.68</td>
<td>0.84 0.85</td>
<td></td>
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<tr>
<td>Overall Sepsis Mortality O/E</td>
<td>0.77 0.91 0.87 0.86 0.74 0.75 0.73 0.87 0.64 0.91 0.84 0.74</td>
<td>0.80 0.82</td>
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</tr>
<tr>
<td>Readmission O/E</td>
<td>0.58 0.69 0.76 0.90 0.31 0.44 0.49 0.78 0.34 0.37 0.59 0.86</td>
<td>0.59 0.86</td>
<td></td>
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</tr>
<tr>
<td>LOS O/E</td>
<td>0.73 0.80 0.79 0.83 0.76 0.98 0.95 0.97 0.95 0.95 0.95 0.95</td>
<td>0.89 0.91</td>
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**CMS Performance Project Goal:** Increase CMS Sepsis Bundle Compliance to 34%, reducing mortality rate by at least 15% per CMS guidelines

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<tr>
<td>Severe Sepsis/Septic Shock Early Management Bundle Compliance (SEP-1)</td>
<td>15.9% 17.4% 26.8% 23.9% 30.2% 25.3% 39.3% 47.6% 40.2% 34.3% 27.5% 39.7%</td>
<td>30.7% 34%</td>
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<tr>
<td>Numerator (100% Compliance)</td>
<td>7 8 11 21 26 29 42 49 35 36 30 46</td>
<td>351 3916 Total</td>
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<tr>
<td>Denominator (Total Cases)</td>
<td>44 46 41 88 86 79 107 103 87 105 109 116</td>
<td>3011 32.74%</td>
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**Emergency Department Process Measure Performance (ED to ICU pts)**

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<tr>
<td>Lactate drawn and resulted within 3-hours</td>
<td>71.0% 83.0% 92.0% 90.0% 89.0% 84.0% 85.0% 76.0% 73.0% 89.0% 96.0% 93.0%</td>
<td>84.3% 95%</td>
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<tr>
<td>Abx Admin within 3 hours</td>
<td>69.0% 80.0% 84.0% 85.0% 96.0% 92.0% 97.0% 94.0% 93.0% 96.0% 99.0% 97.0%</td>
<td>88.5% 95%</td>
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<td>Fluid Admin 30ml/kg</td>
<td>40.0% 34.0% 31.0% 35.0% 34.0% 42.0% 68.0% 36.0% 47.0% 51.0% 49.0% 43.0%</td>
<td>42.5% 95%</td>
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<tr>
<td>Obtain Blood culture prior to Abx</td>
<td>84.0% 79.0% 74.0% 83.0% 84.0% 82.0% 74.0% 75.0% 68.0% 86.0% 95.0% 85.0%</td>
<td>80.8% 95%</td>
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**Overall Sepsis Mortality Raw Data (Total)**

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<td>346 323 390 392 442 470 464 480 422 415 430 430</td>
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| Total Deaths for Outcome Cases | 36 52 56 54 51 50 45 56 44 48 38 40 |

| Overall Sepsis Mortality Rate Observed | 10.4% 16.1% 14.4% 13.8% 11.5% 10.6% 9.7% 11.7% 10.4% 11.6% 8.8% 9.3% |

**Significant Results**

**Overall Mortality Reduction (Goal = 10%)**

| Oct. 15’ - Mar. 16’ (Pre-Intervention) | 2363 299 12.7% |
| Apr. 16’ - Sept. 16’ (Post-Intervention) | 2641 271 10.3% |

**Overall % Reduction in Mortality** 18.9%
Full Project Improvement Plan
Implementation began October 2016

Moses H. Cone Memorial Hospital - Severe Sepsis / Septic Shock Mortality Rate

Results Significant!

www.TriadHealthCareNetwork.com
Learnings – Are we defining healthcare too narrowly?

Common Issues with High Utilizers – are these issues “healthcare”?

- Lack of social support
- Unsafe to remain at home
- Lack of transportation
- Financially challenged
- Health literacy and/or problem solving skills
- Family health education needs
- *Chronic health condition* with daily management challenges*
- *Poly-pharmacy*/ medication barrier issues*
- Patient linkage needed to community resources
- *Lack of patient follow-up with a primary provider*
What determines health?

- Genetics (20%)
- Social, environmental, and behavioral factors (60%)
- Health care (20%)

How does the US view Social Services?
- Employment programs,
- Supportive housing and rent subsidies,
- Nutritional support and family assistance, and
- Other social services that exclude health benefits.


www.TriadHealthCareNetwork.com
Exhibit 8. Health and Social Care Spending as a Percentage of GDP

Notes: GDP refers to gross domestic product.
Triad HealthCare Network
2015/2016 NextGen Learnings

• If you want to lower costs, keep people out of the hospital
  • Admitted patients account for 17% of the population (5k), but 62% of costs

• CHF/COPD patients account for almost 40% of costs

• The Myth of the 5%

• Traditional Care Management has not been very effective for highest risk as deployed

• Must monitor patient engagement/ readiness to change
Triad HealthCare Network
2017 Projects to Manage Cost/Quality

- Comprehensive Care Patient
  - Identify the patients who will have more cost in the future
    - They may or may not have CHF, COPD, CKD/ESRD
  - Identify what, if any, interventions will reduce that cost

- Post-acute care
  - Transition of Care, SNF
  - Reducing unnecessary utilization; better coordination

- Out of Network Utilization
- End of Life Strategies
- Variation Reporting

www.TriadHealthCareNetwork.com
Triad HealthCare Network
2017 Pilot Projects

• Paramedicine – EMS home visits for high complex
• Palliative Care Home Visits
• Telehealth – Video Visits
• Behavioral Health Integration/Expansion
  – Pushing out depression screening - proactive
  – Tele Psych – resource and follow up
• Automated Rx dispensing/reminders
• Medical Therapy Management – Improve Compliance
• Post Acute Care Incentive Program
  – Population Based Payments
Triad HealthCare Network
Paramedicine Pilot

Paramedicine ED visits and Admissions 3 months prior and 3 months post intervention

N=54

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<thead>
<tr>
<th>Category 1</th>
<th>ED prior</th>
<th>ED post</th>
<th>Admit Prior</th>
<th>Admit Post</th>
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<tr>
<td>40 ED visits prior</td>
<td>40%</td>
<td>24 ED visits after</td>
<td>98 Admits prior</td>
<td>70%</td>
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<td>29 Admits after</td>
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www.TriadHealthCareNetwork.com
Flu Vaccine Outcomes (6,743 patients in January 2017)

16% Patients not reached by Emmi Call, and
Have documented flu vaccine 120 day post Emmi Call

30% Patients who interacted with Emmi Call, and
Have documented flu vaccine 120 day post Emmi Call
Lessons Learned/Keys To Success

- Physician Leadership and Engagement is Paramount
- Information Technology Infrastructure is Key
- Focus on the entire continuum of care: End of Life and Post-acute Dollars are Big
- Culture Change as must Move Health System from Reactive to Proactive
- Transition from Individual Physicians Care to Care Management Team Approach
- Embrace Population Health Management Approaches
- Seek ways to engage patients (Engaged Practice results in Engaged patient)

Measure, Adjust and Improve....This is an ongoing process
Triad HealthCare Network
Vision for the Future

• Align provider behavior to improve quality, cost, and access
  – Develop and monitor outcomes that matter
  – Collaborate with physicians to improve efficiency across the continuum
  – Use incentives and capitation to promote innovation in care delivery

• Develop a high performing integrated network of preferred providers and community partners

• We believe that the highest quality and the most integrated care is, in fact, Exceptional Care!
Triad HealthCare Network

Questions

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336-663-5128