Using Data to Tell Your Story

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Session Objectives

To provide practical advice on using data to tell a story that leads to the best decisions and actions
Session Exercise

Upcoming Presentation:

Audience (How can they be the hero?):

Big Idea:

What Is and What Could Be:

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<tr>
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<th>Beginning</th>
<th>Middle</th>
<th>End</th>
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</thead>
<tbody>
<tr>
<td>Key Content</td>
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<tr>
<td>Use of Data</td>
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<tr>
<td>Emotional Evidence</td>
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Key Points

Know Your Story

Build Your Story

Tell Your Story
Know Your Story
Three Key Concepts

- Perform Your Analysis
- Write Out Your “Big Idea”
- Recite your “Big Idea” in 2 minutes or less
Build Your Story
Three Key Concepts

- Know Your Audience
- Great Stories Include Transformation (What Is and What Could Be) and Heroes
- Match The Analytical+Emotional Evidence to the Big Idea and the Transformation
Beginning

“Big Idea” and Define the Needed Transformation
<table>
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<tr>
<th>Beginning</th>
<th>Middle</th>
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<tbody>
<tr>
<td>“Big Idea” and Define the Needed Transformation</td>
<td>Analytical and Emotional Evidence That Will Transform Your Audience</td>
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Using Data In Your Story

✓ Relevant to the story
✓ Credible with audience
✓ Emphasizes the gap of What Is vs What Should Be
✓ Leads to the action (even if the action is no action)
✓ Visually supports the Big Idea
PHIS – Telling the Story of the Patient Encounter

Patient Abstract and ICD-9/10 Coding
- Patient Abstract
- Diagnoses (ICD-9/10)
- Procedures (ICD-9/10)

Billed Transaction/Utilization Data
(all items/services billed to the patient)
- Pharmacy
- Imaging / Radiology
- Lab
- Clinical
- Supplies
- Other
  - Room/Nursing
  - Surgical Svcs
  - Other Misc.

Hospital ID, Disposition, APR-DRG, MS-DRG, Age, Bw, Gest Age, Key Physicians, Payer, Principal Diagnosis, Principal Procedure

QUALITY AND SAFETY IN CHILDREN’S HEALTH CONFERENCE
<table>
<thead>
<tr>
<th>Hospital Name</th>
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<tbody>
<tr>
<td>Akron - Children’s Hospital Medical Center of Akron</td>
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<tr>
<td>Ann Arbor - C.S. Mott Children’s Hospital</td>
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<tr>
<td>Atlanta - Children’s Healthcare of Atlanta</td>
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<td>Austin - Dell Children’s Medical Center of Central Texas</td>
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<td>Birmingham - Children’s of Alabama</td>
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<td>Boston - Boston Children’s Hospital</td>
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<td>Buffalo - Children’s Hospital of Buffalo</td>
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<td>Chicago - Lurie Children’s Hospital of Chicago</td>
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<td>Cincinnati - Children’s Hospital Medical Center</td>
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<td>Cleveland - UH Rainbow Babies &amp; Children’s Hospital</td>
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<td>Columbus - Children’s Hospital</td>
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<td>Corpus Christi - Driscoll Children’s Hospital</td>
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<td>Dallas - Children’s Health Children’s Medical Center of Dallas</td>
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<td>Denver - The Children’s Hospital</td>
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<td>Fresno / Madera - Valley Children’s Hospital</td>
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<td>Ft. Worth - Cook Children’s Medical Center</td>
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<td>Hartford - Connecticut Children’s Medical Center</td>
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<td>Houston - Texas Children’s Hospital</td>
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<td>Indianapolis - Riley Hospital for Children at Indiana University Health</td>
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<td>Kansas City - Children’s Mercy Hospitals &amp; Clinics</td>
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<td>Knoxville - East Tennessee Children’s Hospital</td>
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<td>Little Rock - Arkansas Children’s Hospital</td>
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<td>Long Beach - Miller Children’s and Women’s Hospital Long Beach</td>
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<td>Los Angeles - Children’s Hospital Los Angeles</td>
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<td>Louisville - Kosair Children’s Hospital</td>
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<tr>
<td>Memphis - Le Bonheur Children’s Medical Center</td>
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<td>Miami - Miami Children’s Hospital</td>
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<tr>
<td>Milwaukee - Children’s Hospital of Wisconsin</td>
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<tr>
<td>Minneapolis - Children’s Hospitals and Clinics</td>
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<td>Nashville - Vanderbilt Children’s Hospital</td>
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<td>New Haven - Yale New Haven Children’s Hospital</td>
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<td>New Orleans - Children’s Hospital</td>
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<td>New York - New York Presbyterian-Morgan Stanley Children’s Hospital</td>
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<td>Norfolk - Children’s Hospital of The King’s Daughters</td>
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<td>Oakland - UCSF Benioff Children’s Hospital Oakland</td>
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<td>Omaha - Children’s Hospital and Medical Center</td>
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<td>Orange - Children’s Hospital of Orange County</td>
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<td>Palo Alto - Lucile Packard Children’s Hospitals</td>
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<td>Philadelphia - The Children’s Hospital of Philadelphia</td>
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<td>Phoenix - Phoenix Children’s Hospital</td>
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<td>Pittsburgh - Children’s Hospital of Pittsburgh</td>
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<td>Salt Lake City - Primary Children’s Hospital</td>
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<td>San Antonio - Children’s Hospital of San Antonio</td>
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<td>San Diego - Children’s Hospital and Health Center</td>
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<td>Seattle - Seattle Children’s Hospital</td>
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<td>St. Petersburg - All Children’s Hospital Johns Hopkins Medicine</td>
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<td>St. Louis - St. Louis Children’s Hospital</td>
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<tr>
<td>Washington D.C. - Children’s National Medical Center</td>
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Purpose of Presenting Data

- Inform
- Prioritize
- Improve
Informing the Board or Executive Level

Broad High Level Metrics

- Volume, CMI, ALOS,
- Readmissions, Financials, Organizational Targets

Visual Displays

- Bar graphs
- Trend Charts

Highlight Areas of Focus

- Variation over time
- Changes in areas where improvement work is active
Board View – Where Do I Look First?

CMI:
How different are we from our peers? Am I surprised by the trend?

ALOS:
Our LOS is 12% higher than expected. Do we have teams looking at opportunities?

Readmission:
We are lower than our peers but are we where we think we should be given our population?
National/Regulatory Standards

How Do We Compare?

What Audiences Should See the Data?

What Resources do We Have to Analyze & Use the Data?

Do Other Measures Have More Priority?
Executive Summary indicated LOS opportunities:
• Neonatal may be one of those.
• Even adjusted for CMI LOS is higher than expected

Inlier/Outlier: Similar to peer – peer has more low outliers – their CMI is lower than ours.

Similar CCCs: Infant may have more than one CCC
Prioritization and Improvement

Both focus on the gap between “what is” and “what could be” – the transformation in our story

Prioritization → Where do we allocate resources (time, $, etc)?

Improvement → Where do we focus our improvement for the prioritized area?
Gap – How are we different?

Looking at use of Cytogam with transplants. Target hospital highest in days received. Data Source: PHIS Slide provided by hospital.
Decrease the Gap: Success Story

Drug Cost Analysis (Identified APR-DRG of interest. BMT)

KPI/Comparative Analysis (What other PHIS hospitals perform BMTs?)

Drug Cost Analysis (Identified Drug Classes associated with BMTs)

Vendor Reports - High Cost/High Use

Resource Utilization Report to drilldown to Drug Level

Carbapenems, Proton Pump Inhibitors, Pegfilgrastin

Keys to Success:

• Used PHIS and other internal reports
• Involved key stakeholders
• Provided information for decision-making
• Order sets to support desired practice
• Preferred PPI in TPN
• Pegfilgrastin – administered at home

Met with BMT Director and Antibiotic Stewardship

Order Sets, TPN Modification, Home Administration

Physicians Recognizing Value of PHIS Data

Slide provided by hospital.
Clinical, Financial & Operational Improvement

- Participates in several databases and collaboratives to provide leaders and clinicians comparative data, so that they may systematically identify areas for improvement and drive performance
  - Children’s Hospital Solution for Patient Safety (CHSPS)
  - Pediatric Health Information System (PHIS)
  - Pediatric NSQIP
  - Society of Thoracic Surgeons (STS)
  - Specialty Patient Registries
  - Vermont Oxford Network
  - Virtual PICU Systems (VPS)

Slide provided by hospital.
Evolution of PHIS at Example Hospital

**FY2013**
- Built engagement in PHIS among senior leaders, physicians and other clinicians
- Established a group of core staff proficient in the use of PHIS
- Began networking and established relationships with other user institutions
- Explored use of PHIS for benchmarking and comparative analyses
- Utilized standard PHIS reporting, i.e. bronchiolitis, readmissions, asthma, key performance indicators

**FY2014**
- Increased engagement and participation of physicians, and expanded PHIS user base
- Launched targeted projects focused on clinical, operational and financial improvement

**FY2015**
- Established the Process Improvement Workgroup to drive clinical, financial and operational improvement
- Integrated PHIS use into hospital-wide Clinical Redesign initiative

Slide provided by hospital.
Review of PHIS Length of Stay data indicated opportunity within the sickle cell patient population.

### Length of Stay Report: Hospital Opportunity Details for Qualifying Cases

**Data Source:** PHIS  
**Dates:** Oct 01, 2013 - Sep 30, 2014

<table>
<thead>
<tr>
<th>Hospital City</th>
<th>APR-DRG</th>
<th>Sev Level</th>
<th>APR-DRG (abbreviated)</th>
<th>Qualifying Days</th>
<th>Qualifying Cases</th>
<th>ALOS</th>
<th>Median ALOS Across Hospitals</th>
<th>Actionable ALOS Across Hospitals</th>
<th>% Achieved Opportunity</th>
<th>% Actionable ALOS Across Hospitals</th>
<th>Stretch ALOS Across Hospitals</th>
<th>% Stretch Opportunity</th>
<th>Stretch Opportunity</th>
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<tbody>
<tr>
<td>662</td>
<td>SCA crisis</td>
<td>1</td>
<td>660 Maj hematol/immuno dx</td>
<td>423</td>
<td>98</td>
<td>4.3</td>
<td>3.6</td>
<td>70.2</td>
<td>17%</td>
<td>1.7</td>
<td>257.3</td>
<td>60.8%</td>
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<tr>
<td>420</td>
<td>Diabetes</td>
<td>2</td>
<td>812 Poisoning medicine</td>
<td>141</td>
<td>61</td>
<td>2.3</td>
<td>2.2</td>
<td>5.5</td>
<td>4%</td>
<td>1.3</td>
<td>60.0</td>
<td>42.5%</td>
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<tr>
<td>315</td>
<td>Shoulder/UA/FA px</td>
<td>1</td>
<td>315 Diabetes</td>
<td>73</td>
<td>61</td>
<td>1.2</td>
<td>1.2</td>
<td>0.0</td>
<td>0%</td>
<td>1.1</td>
<td>50.0</td>
<td>6.9%</td>
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<tr>
<td>420</td>
<td>Diabetes</td>
<td>2</td>
<td>251 Abdominal pain</td>
<td>123</td>
<td>59</td>
<td>2.1</td>
<td>2.2</td>
<td>-4.5</td>
<td>-4%</td>
<td>1.2</td>
<td>50.0</td>
<td>40.7%</td>
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<tr>
<td>722</td>
<td>Fever</td>
<td>1</td>
<td>722 HypoV &amp; elect disorders</td>
<td>111</td>
<td>60</td>
<td>1.9</td>
<td>2.0</td>
<td>-11.3</td>
<td>-10%</td>
<td>1.7</td>
<td>6.8</td>
<td>6.1%</td>
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<tr>
<td>422</td>
<td>2 HypoV &amp; elect disorders</td>
<td>2</td>
<td>53 Seizure</td>
<td>122</td>
<td>53</td>
<td>2.3</td>
<td>2.6</td>
<td>-14.3</td>
<td>-12%</td>
<td>2.0</td>
<td>17.0</td>
<td>14.0%</td>
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*Slide provided by hospital.*
Sickle Cell Redesign

Approach:
Understand current process and metrics
Understand patient population, i.e. high utilizers
Develop care plans
Establish metrics and reporting mechanisms

Financials:
Estimated potential savings of $299K due to reduction in length of stay of population
Tell Your Story
Key Concepts

- Practice/Rehearse with Trusted Colleague
- Anticipate Questions
- Always Have Your Two Minute Key Message Ready
- End With the Call to Action and Next Steps
Resource #1 – Resonate by Nancy Duarte

Resource #2 – HBR Guide to Persuasive Presentations
Resource #3 – Say It With Charts by Gene Zelazney
Table Discussion

Discuss examples where you have seen an effective use of data to tell a story
Thank You

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