Transforming the Revenue Cycle

Four Key Imperatives for Increasing Revenue Capture
1. The Need for Revenue Cycle Excellence

2. Four Requirements of Transformational Performance

3. Identifying Strengths and Opportunities
Challenging Margin Environment Requires Refocus on Revenue Cycle

Hospital Total All-Payer Margin¹
2006-2015

Revenue and Expense Growth Rates for Non-Profit Hospitals
2009-2016


¹) Margin calculated as revenue minus costs, divided by revenue. Total margin includes all patient care services funded by all payers, plus nonpatient revenue. Analysis excludes critical access hospitals and Maryland hospitals.

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The Revenue Cycle Triple Play

Emerging Margin Pressures Require New Focus on Cost

Primary Revenue Cycle Focus

1. **Cash Acceleration**
   Reduce Days in Accounts Receivable and increase POS collections

2. **Contract Integrity**
   Prevent denials and underpayments and maximize contract yield

Secondary Focus

3. **Cost Reduction**
   Decrease cost-to-collect and increase efficiency of revenue cycle resources

Source: Financial Leadership Council interviews and analysis.
## Sizing the Potential Impact of Improvement

### Focus on Five Key Metrics To Improve Your Bottom Line

**From the Middle to the Head of the Pack**

Relative key-metric performance differences between 50th vs. 75th percentile

<table>
<thead>
<tr>
<th>Metric</th>
<th>Today</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denial Write Offs</td>
<td>2.1% NPR ($7M)</td>
<td>1.2% NPR ($4M)</td>
</tr>
<tr>
<td>Bad Debt*</td>
<td>3.7% NPR ($13M)</td>
<td>2.0% NPR ($7M)</td>
</tr>
<tr>
<td>Cost to Collect</td>
<td>3% NPR ($10M)</td>
<td>2.2% NPR ($8M)</td>
</tr>
<tr>
<td>Contract Yield</td>
<td>4.5% NPR ($16M)</td>
<td>2.8% NPR ($10M)</td>
</tr>
<tr>
<td>Days in AR</td>
<td>41 days</td>
<td>35 days</td>
</tr>
</tbody>
</table>

**The View From the Top**

Estimated financial impact associated with move from 50th to 75th percentile for all listed revenue cycle metrics

**Average Hospital**

- 350-bed standalone hospital
- $350M net patient revenue
- Operating margin 2.5%

**Estimated Total Opportunity**

Assuming improvement from 50th to 75th percentile for all listed revenue cycle metrics

- **$18M** Total Value of Financial Improvement
- **5.1** Estimated Percentage Point Increase in Operating Margin

1) Bad debt benchmarks for hospitals in states with Medicaid coverage expansion (61% of survey participants).

Source: 2017 Hospital Revenue Cycle Benchmarking Survey; Financial Leadership Council interviews and analysis.
Background on the Survey

Over a Decade of Revenue Cycle Benchmarking

The Hospital Revenue Cycle Benchmarking Survey

• Revenue cycle benchmarks span patient access, mid-cycle, and business office, as well as overall operational and financial metrics.
• Survey is conducted biennially (since 2006) and is limited to acute care hospitals.
• 2017 survey included 368 hospitals and health systems.
• 90 organizations answered the online survey.
• 297 organizations provided data through Advisory Board Technologies.
Over 350 Participating Hospitals and Health Systems

Reported Data Spans 12 Months Across 2016-2017

**Bed Size**

- 43% Fewer than 250 Beds
- 32% 250 to 500 Beds
- 24% More than 500 Beds

**Tax Status**

- 96% Not-for-Profit
- 3% For-Profit
- 1% Government

**System Affiliation**

- 46% Part of a Multi-Hospital, Multi-State System
- 28% Independent or Stand-Alone
- 26% Part of a Multi-Hospital, Single-State System

**Regional Breakdown**

- 34% Midwest
- 27% South
- 23% Northeast
- 16% West

Source: 2017 Hospital Revenue Cycle Benchmarking Survey; Financial Leadership Council interviews and analysis.
Four Requirements of a Transformative Revenue Cycle

1. Enhanced Integration and Efficiency
2. Superior Patient Experience
3. Data-Driven Payer Interactions
4. Strengthened Clinical Relationships

Source: Financial Leadership Council interviews and analysis.
The Need for Revenue Cycle Excellence

Four Requirements for Transformational Performance

Identifying Strengths and Opportunities
1. Enhanced Integration and Efficiency

A Sign of Strong Performance?

Recent Gains Making Up for Lost Ground in 2015

Trended Net AR Days from 2006 to 2017\textsuperscript{1,2}
n=60 (2006); n=35 (2008); n=98 (2011); n=47 (2013); n=58 (2015); n=154 (2017)

\textbf{Multiple Factors Improving AR}

1) Survey and Technology data.
2) Low, median, and high performance categories correspond to 75\textsuperscript{th}, 50\textsuperscript{th}, and 25\textsuperscript{th} percentiles, respectively.

Source: 2006-2017 Hospital Revenue Cycle Benchmarking Survey; Financial Leadership Council interviews and analysis.
Cost to Collect Holding Flat

Substantial Margin Ground to be Gained through Improved Performance

**Full Cost to Collect**

*Percentage of Net Patient Revenue*

n=51 (2011); n=31 (2013); n=59 (2015); n=48 (2017)

1) Survey data only.
2) Low, median, and high performance categories correspond to 75th, 50th, and 25th percentiles
3) As a percentage of Net Patient Revenue, for an average 350-bed hospital with $350M in Net Patient Revenue

**Revenue Impact of Improvement in Cost to Collect**

- 3% 50th Percentile
- 2.2% 75th Percentile
- $2M Incremental Revenue Gain from Performance Improvement

Source: 2011-2017 Hospital Revenue Cycle Benchmarking Survey; Financial Leadership Council interviews and analysis.
The Quest for Scale

Providers Attempting to Build Scale Through Consolidation

### Hospital M&A Activity

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Deal Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>66</td>
</tr>
<tr>
<td>2011</td>
<td>88</td>
</tr>
<tr>
<td>2012</td>
<td>95</td>
</tr>
<tr>
<td>2013</td>
<td>98</td>
</tr>
<tr>
<td>2014</td>
<td>95</td>
</tr>
<tr>
<td>2015</td>
<td>112</td>
</tr>
<tr>
<td>2016</td>
<td>102</td>
</tr>
</tbody>
</table>

### Number of Hospitals Part of a Health System

<table>
<thead>
<tr>
<th>Year</th>
<th>Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>2,716</td>
</tr>
<tr>
<td>2010</td>
<td>2,716</td>
</tr>
<tr>
<td>2015</td>
<td>3,198</td>
</tr>
</tbody>
</table>

Source: Kaufmann Hall, *Hospital Merger and Acquisition Activity Continues Upward Momentum, According to Kaufman Hall Analysis*; American Hospital Association, "2016 Chartbook: Trends Affecting Hospitals and Health Systems;" Health Care Advisory Board interviews and analysis.
Revenue Cycle Not Fully Realizing Economies of Scale

Untapped Opportunities for Centralization in the Business Office

Revenue Cycle Functions Centralized at the System Level

*Percentage of Survey Respondents Part of a Health System*

n=65

102 M&A in 2016
8% increase in Q1 2017 from prior year

<table>
<thead>
<tr>
<th>Function</th>
<th>2008</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scheduling</td>
<td>21%</td>
<td>26%</td>
</tr>
<tr>
<td>Pre-Registration</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Registration</td>
<td>21%</td>
<td>21%</td>
</tr>
<tr>
<td>Case Management</td>
<td>0%</td>
<td>N/A</td>
</tr>
<tr>
<td>Medical Records</td>
<td>38%</td>
<td>35%</td>
</tr>
<tr>
<td>Coding</td>
<td>9%</td>
<td>51%</td>
</tr>
<tr>
<td>Billing</td>
<td>60%</td>
<td>71%</td>
</tr>
<tr>
<td>Collections (Early Out)</td>
<td>49%</td>
<td>71%</td>
</tr>
<tr>
<td>Collections (Long Term)</td>
<td>49%</td>
<td>71%</td>
</tr>
<tr>
<td>Denials</td>
<td>59%</td>
<td>57%</td>
</tr>
<tr>
<td>Payer Contracting</td>
<td>68%</td>
<td>49%</td>
</tr>
<tr>
<td>Physician Management</td>
<td>43%</td>
<td>75%</td>
</tr>
</tbody>
</table>

What Do We Mean by Integration?

Commonalities of Top Performers

Three Characteristics of Integrated Revenue Cycle Operations

1. **Shared reporting structures**
   - Reduces conflicts between facility and system priorities and decreases feedback time for process improvement.

2. **Shared economies of intellect**
   - Allows identification, development, and implementation of standardized best practices system-wide.

3. **Shared accountability**
   - Creates common performance standard; requires shared metrics and cross-system visibility.

Source: Financial Leadership Council interviews and analysis.
# IT Not a Prerequisite for Basic Efforts

But Serves as Significant Value-Add to Further Integration

## Improvement Areas Not Dependent on IT

*By Revenue Cycle Area*

<table>
<thead>
<tr>
<th>Patient Access</th>
<th>Midcycle</th>
<th>Business Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Training in point-of-service collection</td>
<td>• Prioritization of diagnoses</td>
<td>• Outbound calls for patient collection</td>
</tr>
<tr>
<td>• Payment expectations</td>
<td>• Method of chart flagging</td>
<td>• Appeals escalation process</td>
</tr>
<tr>
<td>• Payment plans</td>
<td>• Physician feedback and education</td>
<td>• Standard for AR follow-up</td>
</tr>
<tr>
<td>• Charity care policy</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Critical Value-Adds from IT

| Patient obligation estimates  | Improved charge capture | Automated cash posting |
| Scheduling portal            | Automated chart review  | Unified bill            |
| Performance tracking         | Standard queries        | Performance tracking     |

Source: Financial Leadership Council interviews and analysis.
Two Models of Integration

Geographical Integration
*Reduction of Duplicative Services*

1. Where **across sites** are there opportunities for revenue cycle integration?

Functional Integration
*Alignment of Multiple Processes*

2. Where **within the revenue cycle** are there opportunities for integration?

3. **In Search of Positive Externalities**

   How does integrating this function across sites, or functions across our system, help further other strategic goals?

Source: Financial Leadership Council interviews and analysis.
Patient Debt Neutralizing Benefits of Coverage Gains

High Deductibles Impact Commercial Collections Performance

Coverage Expansion Met with Rise in HDHPs

- U.S. Uninsured Rate
- % Workers With Deductible>$2,000

More Commercial Patient Obligations Going to Bad Debt

>Hospital Potential Revenue from Patient Obligations

n=700,000 commercial patient accounts, 21 facilities

Many Americans Lack Cash Flow to Cover Potential Out-of-Pocket Costs

- 35% Households without enough liquid assets to pay $2,500 deductible

Source: Financial Leadership Council interviews and analysis.
## Ending CSRs Only Amplifies Patient Obligations

### Bad Debt Likely to Increase for Many Hospitals

<table>
<thead>
<tr>
<th>Cost-Sharing Reductions</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACA requirement that insurers reduce OOP costs for silver plan enrollees with household incomes &lt;250% FPL</td>
</tr>
</tbody>
</table>

*Impact*
- **6.4M** people enrolled in plans with reduced cost-sharing in 2016
- **~$7B** in annual insurer CSR payments
- In 2016, CSRs reduced the average deductible for those with incomes below 150% of poverty from **$3,609** to **$255**

"Based on guidance from the Department of Justice, the Department of Health and Human Services has concluded that there is no appropriation for cost-sharing reduction payments to insurance companies under Obamacare. In light of this analysis, **the Government cannot lawfully make the cost-sharing reduction payments.**"

White House Press Office, Oct. 12th

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### CBO Projects Rise in Premium Tax Credits Will Outweigh Savings From CSRs

- **20%** Projected increase in gross silver plan premiums for 2018
- **$194B** Projected increase to federal deficit, 2017-2026

Source: CBO, Kaiser Family Foundation, White House Press Office: Health Care Advisory Board interviews and analysis.
Reduction in Bad Debt Driven by Medicaid Expansion

Bad Debt as a Percentage of Net Patient Revenue\(^1,2,3\)
n=79 (2011); n=43 (2013); n=67 (2017)

<table>
<thead>
<tr>
<th>Year</th>
<th>Low Performance</th>
<th>Median</th>
<th>High Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>7.5%</td>
<td>9.0%</td>
<td>8.5%</td>
</tr>
<tr>
<td>2013</td>
<td>5.0%</td>
<td>5.0%</td>
<td>5.0%</td>
</tr>
<tr>
<td>2017: States With No Medicaid Expansion</td>
<td>2.5%</td>
<td>2.0%</td>
<td>2.0%</td>
</tr>
<tr>
<td>2017: States With Medicaid Expansion</td>
<td>4.0%</td>
<td>3.7%</td>
<td>5.1%</td>
</tr>
</tbody>
</table>

Change in bad debt for median hospital in a state with no coverage expansion since 2013: \(+2\%\)

Change in bad debt for median hospital in a state with coverage expansion since 2013: \(-26\%\)

1) Survey data only.
2) Low, median, and high performance categories correspond to 75\(^{th}\), 50\(^{th}\), and 25\(^{th}\) percentiles
3) 61\% of survey participants were located in a state with Medicaid coverage expansion.

Source: 2011-2017 Hospital Revenue Cycle Benchmarking Survey; Financial Leadership Council interviews and analysis.
Federal Medicaid Funding Set to Phase Down

ACA's Medicaid Cuts Poised to Take Effect Beginning in 2017

31 States and DC Have Approved Expansion
As of October 2017

- 31 States and DC have approved Medicaid expansion
- Expansion by waiver
- Not currently participating

Federal spending on Medicaid expansion population, FY2015:
- $68B

State spending on Medicaid expansion population, FY2015:
- $4.3B

Impending Federal Cuts to Safety Net Spending Threaten Stability

- $43B Cut to federal Medicaid DSH payments, 2018-2026
- 31 States face revenue shortfalls, Jan. 2017

“Medicaid could make up close to half of Louisiana's state budget”
“'We can't control our costs. We're growing out of control,' said state Rep. John Schroder, R-Covington.”

Employer-Sponsored Coverage Erosion Continues

Cost-Shifting Remains Dominant Response as Spending Grows

Average Annual Growth Rate Among Private Business’s Health Expenditures
FY 2014-2017

Percentage of Workers by Annual Deductible of $2,000 or More
By Firm Size, 2009-2016

Staffing Models Shifting to Patient Access

But Recent Plateau Signals Post-ACA Equilibrium

Median Number of FTEs per 100 Beds by Revenue Cycle Function\(^1\)

\(n=41\) (2013); \(n=63\) (2015); \(n=55\) (2017)

1) Survey data only.

Source: 2011-2017 Hospital Revenue Cycle Benchmarking Survey; Financial Leadership Council interviews and analysis.
Increased Success with Point-of-Service Collections

Common Deployment of Discounting Boosts Rates

**Point-of-Service Collections**\(^1,2\)

*Percentage of Net Patient Revenue*

n=72 (2011); n=38 (2013); n=54 (2015); n=83 (2017)

<table>
<thead>
<tr>
<th>Low Performance</th>
<th>Median</th>
<th>High Performance</th>
<th>Top 10th Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.12% 0.15% 0.27% 0.30%</td>
<td>0.24% 0.33% 0.57% 0.80%</td>
<td>0.44% 0.72% 1.10% 1.30%</td>
<td>N/A N/A</td>
</tr>
</tbody>
</table>

1) Survey and Technology data.
2) Low, median, and high performance categories correspond to 25\(^{th}\), 50\(^{th}\), and 75\(^{th}\) percentiles.

Prompt-Pay Discounts: An Effective Strategy to Boost Collections

- **44%** Hospitals offering discounts for full patient payments at point-of-service
- **20%** Average reported discount on patient obligation for full payment upfront
- **90%** Boost in point-of-service collections where prompt-pay discount is offered

Source: 2011-2017 Hospital Revenue Cycle Benchmarking Survey; Financial Leadership Council interviews and analysis.
But Collection Rates Insufficient

Upfront Payments Must Increase to Match Growing Patient Obligations

Probability of Eventually Collecting Total Patient Obligation (TPO) by POS Payment

Probability of Collecting Total Patient Obligation (TPO) by POS Payment

n=335,314 claims, 18 facilities

1. Analysis for commercial payers in a median back-end performing facility (collecting between 26.5 and 71.7% of total patient obligations when no POS payment is made).

2. On average.

Source: Financial Leadership Council interviews and analysis.
Bad Debt Not Limited to One Type of Patient

Top Commercial Sources of Inpatient Bad Debt From Predominantly Elective Services
FY 2015

*n=280,000 patient accounts, 21 facilities*

<table>
<thead>
<tr>
<th>Rank by Total Bad Debt</th>
<th>Service Line</th>
<th>DRG</th>
<th>Description</th>
<th>Percentage of Discharges Classified as Elective</th>
<th>Average Unpaid Patient Obligation per Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Obstetrics</td>
<td>775</td>
<td>Vaginal delivery w/o complicating diagnoses</td>
<td>50%</td>
<td>$260</td>
</tr>
<tr>
<td>2</td>
<td>Obstetrics</td>
<td>766</td>
<td>Caesarean section w/o CC/MCC</td>
<td>62%</td>
<td>$299</td>
</tr>
<tr>
<td>3</td>
<td>Orthopedics</td>
<td>470</td>
<td>Major joint replacement or reattachment of lower extremity w/o MCC</td>
<td>94%</td>
<td>$371</td>
</tr>
<tr>
<td>4</td>
<td>Obstetrics</td>
<td>765</td>
<td>Caesarean section w CC/MCC</td>
<td>54%</td>
<td>$368</td>
</tr>
<tr>
<td>5</td>
<td>Spine</td>
<td>460</td>
<td>Spinal fusion except cervical w/o MCC</td>
<td>92%</td>
<td>$614</td>
</tr>
<tr>
<td>6</td>
<td>Spine</td>
<td>473</td>
<td>Cervical spinal fusion w/o CC/MCC</td>
<td>92%</td>
<td>$944</td>
</tr>
<tr>
<td>7</td>
<td>Gynecology</td>
<td>743</td>
<td>Uterine &amp; adnexa proc for non-malignancy w/o CC/MCC</td>
<td>89%</td>
<td>$444</td>
</tr>
<tr>
<td>8</td>
<td>Neurosurgery</td>
<td>027</td>
<td>Craniotomy &amp; endovascular intracranial procedures w/o CC/MCC</td>
<td>81%</td>
<td>$2,114</td>
</tr>
<tr>
<td>9</td>
<td>Cardiac Services</td>
<td>235</td>
<td>Coronary bypass w/o cardiac cath w MCC</td>
<td>61%</td>
<td>$4,331</td>
</tr>
<tr>
<td>10</td>
<td>General Surgery</td>
<td>330</td>
<td>Major small &amp; large bowel procedures w CC</td>
<td>63%</td>
<td>$836</td>
</tr>
</tbody>
</table>

1) Percentage of discharges by DRG classified as elective in the 2013 National Inpatient Sample (NIS) from HCUPnet. National distribution matches sample distribution.

POS Collections Not Indicative of Positive Experience

More than Just Asking Nicely, and Posting the Cash

Provide a **Price Estimate**

To pay you blindly, without even knowing how much the procedure is, is just plain stupid. Or she did not know how to explain it right. She tried to give comfort by saying at least your deductible will be paid for the year...really?

Ensure Coordination Between Patient Access and Business Office

This place is actively collecting money that they aren't owed. This is the second time they have turned a bill of mine over to a collections agency. I PAID IN FULL IN THE OFFICE DURING THE VISIT.

Be Mindful of the **Care Setting**

A clerk came TO THE TRAUMA AREA and asked for money with a card scanner. I am insured but she wanted me to pay the "estimated total" upfront before receiving any care which seemed insanely callous given the situation.

Be Prepared for a **Cultural Shift**

They make you pay upfront for a procedure! I had to pay 100 dollars and I have insurance.

*Yelp Reviews For Five Different Hospitals, 2017*

Source: Yelp; Financial Leadership Council interviews and analyses.
Moving Beyond Pricing and Collections

Transparency Attracts Patients; Experience Drives Repeat Business

Experience Drives Loyalty…

60%
Percentage of top 10 loyalty drivers for primary care physicians that are related to experience (rather than cost or clinical quality)\(^1\)

66%
Percentage of top nine loyalty drivers for specialists that are related to experience (rather than cost or clinical quality)\(^1\)

…and Loyalty Drives Business

2x
Revenue growth rate for companies with loyal followings compared to those without

6x
Amount of revenue generated by a patient who returns within 18 months compared to one who doesn’t

25%
Increase in customer retention resulting from an organization’s commitment to customer experience

>25%
Predicted increase in profits due to a 5% increase in customer retention


1) Based on Advisory Board consumer conjoint surveys.
Building an Experience that Drives Loyalty

Financial Interactions an Integral Part of the Patient Experience

Patient Financial Experience Checklist

Transparent Search
- Do we provide price estimates on our website?

Convenient Access
- Do we provide price estimates during scheduling?
- Do we frontload patient payment?

Positive Encounter
- Do staff engage in respectful payment conversations with patients?
- Do we offer customized payment plans?

Durable Relationship
- Is each point of financial contact professional and of consistent quality?

Consumer Experience

1. Transparent Search
   - Compatibility
   - Reviews
   - Availability
   - Price transparency

2. Convenient Access
   - Expanded capacity
   - Convenient sites
   - Enterprise scheduling
   - Frontload payment

3. Positive Encounter
   - Navigable facilities
   - No-wait visits
   - Cost discussions
   - Respectful interactions
   - Customized payment plans

4. Durable Relationship
   - Care coordination
   - Personalization
   - Comprehensive services
   - Frictionless transactions

Source: Financial Leadership Council Interviews and Analysis
The Patient Financial Journey

Meeting Patients’ Expectations Requires a New Approach to Revenue Cycle

**Components of a Positive Experience**
- Price transparency
- Affordable, competitive prices
- OOP estimate
- Insurance verification
- Eligibility screening
- Discussion of payment options
- Smooth registration and POS collections
- Financial counseling
- Single bill
- Easy to access
- Easy to understand
- Customer service
- Multiple payment options
- Automatic withdrawal

**Revenue Cycle Functions**
- Scheduling and Pre-Registration
- Registration
- Documentation and Coding
- Billing and Collections
- Denials Management
Payers Also Feeling the Shifting Landscape

Health Plans No Longer Have a True Advocate

Signs of an Uncertain Market

**Risk Corridor Lawsuits**
- Federal government only allowed to pay 12.6% of insurers’ requests
- Many plans have filed lawsuits to collect risk corridor payments

**Cadillac Tax Delays**
- 40 percent excise tax on high cost employer plans likely leading to a shift to exchanges
- Delayed implementation from 2018 to 2020 due to political pressure

**Mega-Merger Deals**
- Anthem-Cigna and Aetna-Humana mergers announced in summer 2015
- Both deals dead due to antitrust concerns

Uptick in Denial Write-Offs Across the Cohort

Significant Increase in Write-Offs for the Median 350 Bed Hospital

<table>
<thead>
<tr>
<th>Category</th>
<th>2011</th>
<th>2013</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Performance</td>
<td>3.9%</td>
<td>2.2%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Median</td>
<td>4.0%</td>
<td>1.3%</td>
<td>2.1%</td>
</tr>
<tr>
<td>High Performance</td>
<td>3.9%</td>
<td>2.1%</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

1) Survey data only.
2) Low, median, and high performance categories correspond to 75th, 50th, and 25th percentiles.

Source: 2011-2017 Hospital Revenue Cycle Benchmarking Survey; Financial Leadership Council interviews and analysis.
**Medicare Advantage Increasing Scrutiny on Claims**

### Initial Denials, by Payer

<table>
<thead>
<tr>
<th>Year</th>
<th>Payer</th>
<th>Medicaid</th>
<th>Commercial</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>n=106</td>
<td>16%</td>
<td>24%</td>
<td>6%</td>
</tr>
<tr>
<td>2017</td>
<td>n=113</td>
<td>17%</td>
<td>33%</td>
<td>47%</td>
</tr>
</tbody>
</table>

### Denial Write-Offs, by Payer

<table>
<thead>
<tr>
<th>Year</th>
<th>Payer</th>
<th>Medicaid</th>
<th>Commercial</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>n=85</td>
<td>17%</td>
<td>27%</td>
<td>6%</td>
</tr>
<tr>
<td>2017</td>
<td>n=118</td>
<td>15%</td>
<td>41%</td>
<td>40%</td>
</tr>
</tbody>
</table>

1) Survey and Technology data.
2) Medicare Advantage.

Source: 2015-2017 Hospital Revenue Cycle Benchmarking Survey; Financial Leadership Council interviews and analysis.
Medical Necessity a Growing Driver of Denials

Initial Denials, by Reason

2015
n=103

- Eligibility: 16%
- Authorization: 11%
- Medical Necessity: 61%
- Technical/Demographic Errors: 12%

2017
n=108

- Eligibility: 14%
- Authorization: 16%
- Medical Necessity: 50%
- Technical/Demographic Errors: 20%

Denial Write-Offs, by Reason

2015
n=87

- Eligibility: 23%
- Authorization: 6%
- Medical Necessity: 28%
- Technical/Demographic Errors: 42%

2017
n=97

- Eligibility: 13%
- Authorization: 12%
- Medical Necessity: 27%
- Technical/Demographic Errors: 48%

Source: 2015-2017 Hospital Revenue Cycle Benchmarking Survey; Financial Leadership Council interviews and analysis.

1) Survey and Technology data.
2) Mistakes in patients' name, date of birth, insurance, etc.

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Focus on Denials Prevention Increasingly Important

**Appeal Success for Commercial Denials**

- **2015**: Low Performance 25%, Median 51%, High Performance 83%
- **2017**: Low Performance 21%, Median 41%, High Performance 70%

- **2015**: Low Performance 40%, Median 56%, High Performance 70%
- **2017**: Low Performance 29%, Median 45%, High Performance 59%

**Appeal Success for Medicaid Denials**

- **2015**: Low Performance 25%, Median 51%, High Performance 83%
- **2017**: Low Performance 21%, Median 41%, High Performance 70%

**Appeal Success for Medicare/MA Denials**

- **2015**: Low Performance 25%, Median 46%, High Performance 64%
- **2017**: Low Performance 25%, Median 50%, High Performance 73%

**Note:**

1) Survey and Technology data.
2) Low, median, and high performance categories correspond to 25th, 50th, and 75th percentiles.
3) Medicare Advantage.

Source: 2017 Hospital Revenue Cycle Benchmarking Survey; Financial Leadership Council interviews and analysis.

For commercial claims, higher initial denial rate for hospitals with appeal success rates higher than median (45%), compared to lower than median.
Hospitals Spending More Time on Claims Pre-Bill

Days in Unbilled AR On the Rise

Unbilled Accounts Receivable Days (DNFB)$^{1,2}$
n=76 (2011) n=31 (2013); n=140 (2015); n=133 (2017)

What Goes Into DNFB?
- Documentation and coding (DNFC)
- Claim review and editing (CNFB)

1) Survey and Technology data.
2) Low, median, and high performance categories correspond to 75th, 50th, and 25th percentiles, respectively.
Robust Denials Strategy Necessary

Common Elements of Successful Denials Programs

**Staff Distribution**
Balance patient access and business office resources to minimize errors and speed billing time

**Shared Accountability**
Entire revenue cycle responsible for denials performance, including front and mid cycle staff

**Denials Staff Specialization**
Separate clinical and technical denials teams to allow for efficiencies and specialization

**Standardized Process**
Hardwired denials prioritization and triage processes, and automated worklists

**Disciplined Data Tracking**
Monthly denials reporting according to payer/type of denial, with root causes identified
Denials Strategy Should Include Payer Strategy

1. **Quarterly Payer Scorecards**
   - Includes review of denials and underpayments, by payer, with source of denials identified

2. **Data-Informed Negotiation Prep**
   - Includes review of historical denials and underpayments, and impact on revenue

3. **Culture of Partnership**
   - Non-negotiation focused meetings includes discussion on issues around denials, and underpayments, but also on patient financial experience impacted by payer
4. Strengthened Clinical Partnerships

A Case for Change Beyond Quality

Reduction in Care Variation Required to Grow Margins Today

Traditional Margin Levers No Longer Sufficient

"The tactical cost levers that hospitals usually pull — supply chain savings initiatives, capital spending freezes and benchmark-driven headcount reductions — are neither sustainable nor significant enough to achieve the savings they need to survive and thrive."

60% Of hospitals projected to have negative profit margin in 2025 if they do not improve productivity or reduce costs

CFOs’ Estimated Breakdown of Cost Savings Opportunities

n=45

Building Further Clinical-Financial Alignment

Coding, Documentation Foundational to Achieving Other Strategic Aims

Growing Role of the Midcycle

Revenue Capture

Requires CDI staff with clinical skills/knowledge to ensure payment accuracy

Care Variation

Accurate coding, documentation necessary to identify sources of unwanted variation

Population Health Management

Full picture of patient conditions, care required to manage total cost of care
MACRA Dealing Physicians in on Risk

Greater Payment Updates, Bonuses Depend on Payment Migration

Annual Provider Payment Adjustments

### MIPS Bonuses/Penalties
- **+-4%**: Maximum annual adjustment, 2019
- **+-9%**: Maximum annual adjustment, 2022
- **$500M**: Additional bonus pool for high performers

### APM Bonuses/Penalties
- **5%**: Annual lump-sum bonus from 2019-2024 (plus any bonuses/penalties from Advanced Payment Models themselves)

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1) Relative to 2015 payment.

Source: The Medicare Access and CHIP Reauthorization Act of 2015; CMS, Merit-Based Incentive Payment System (MIPS) and Alternative Payment Model (APM) Incentive under the Physician Fee Schedule, and Criteria for Physician-Focused Payment Models, April 25, 2016; Health Care Advisory Board interviews and analysis.
Inpatient CDI Tried and True

Documentation Improvement Has Proven Its Value for Over a Decade

Inpatient Programs Well Adopted, Have Well Documented Impact

81% of providers have an inpatient CDI program in place

Example Member Results

$3.2M Increase in reimbursement in five months\(^1\)

1.12 Reduction in expected mortality ratio\(^2\)

13% Decrease in heart failure readmission rate\(^3\)

Advisory Board an Early Advocate

Spotlight on Advisory Board Inpatient CDI Resources

- Enfranchising Physicians in Documentation (FLC, 2006)
- Best in Class Clinical Documentation Programs (FLC, 2010)
- Making CDI a Finance Priority (FLC, 2010)
- Achieving Full Revenue Capture (HCAB, 2012)
- Re-thinking Clinical Documentation Improvement (FLC, 2014)
- The CFO's guide to the future of CDI (FLC, 2015)

\(^1\) Results of all efforts has meant a 0.72% reduction in use of unspecified codes and $3.2M increase in reimbursement following education, between July and December 2013 at Kelly Medical Center.

\(^2\) Charts with PSIs are re-examined for missed diagnoses; observed mortality over expected mortality ratio reduced from 1.8 to 0.68 at University of Kentucky Medical Center.

\(^3\) CDI specialists searched to identify patients with heart failure and alert Quality Management RNs, decreased heart failure readmission rate to 13% at Flynn Hospital.

Source: Financial Leadership Council 20614 CDI Benchmarking Survey; Financial Leadership Council interviews and analysis.
Few Organizations Moving Beyond Inpatient CDI

“Outpatient” CDI Defined by Many Settings

Adoption in the Outpatient Setting is Growing, But Still Limited

Hospitals currently possessing an outpatient CDI program

11% Hospitals with outpatient CDI programs, 2011

34% Hospitals with outpatient CDI programs, 2014

CDI Programs Have Potential for Many Outpatient Settings

Common Sites of Focus

- Hospital Outpatient Department
- Observation Unit/Beds
- Emergency Department
- Ambulatory Surgery Center

Emerging Site of Focus

- Physician Offices

## Conditions Ripe for Physician Office CDI

### Physician Documentation Plays Important Role in Strategy Delivery

#### Demographics of Physician Office Visits A Motivating Factor

*Physician/Patient Encounters, 2016*

<table>
<thead>
<tr>
<th>Category</th>
<th>Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician office visits</td>
<td>928.6M</td>
</tr>
<tr>
<td>Hospital outpatient visits</td>
<td>125.7M</td>
</tr>
<tr>
<td>Emergency department visits</td>
<td>136.3M</td>
</tr>
<tr>
<td>Inpatient surgical procedures</td>
<td>51.4M</td>
</tr>
</tbody>
</table>

#### Physician’s Play an Increasingly Important Role in Strategy Delivery

- 49% increase in percentage of physicians employed by hospitals, 2012-2015

#### Physician Office Documentation Impacts Key Strategic Imperatives

- Care delivery
- Care variation reduction
- Quality performance (MIPS/APMs, P4P)
- Medical necessity
- Maximizing accurate reimbursement

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An Opportunity for Finance Leaders to Improve Care

A Robust CDI Program Can Meaningfully Impact Patient Care Delivery

MLN Matters: Documenting Medical Necessity for Major Joint Replacement (Hip and Knee)

Example of a medical record that may result in a denied claim

Mrs. Smith is a female, age 70, with chronic right knee pain. She states she is unable to walk without pain and pain meds do not work. Therefore, she needs a total right knee replacement.

Example of a medical record with more detail and support of medical necessity

History
Mrs. Smith is a 70-year-old female who is suffering from end-stage Osteoarthritis (OA) of her right knee, worsening gradually over the past 10 years. Treatment has included …. She has also participated in an exercise program/physical therapy for the past 3 months without functional improvement. Sometimes the pain keeps her awake at night. She is using a cane and is no longer able... Personal safety is compromised as she had falls x 3 in attempting the stairs to her home entrance...

Physical Examination...
Investigations...
Impression...
Plan/Orders...
Building a Physician Office CDI Program

Five Steps Critical for Impactful Program Design

Blueprint for a Scalable Program

**Build Foundation**

1. Assess Focus Areas
2. Size Physician Opportunities

**Scale Across Organization**

3. Educate and Engage Physicians
4. Automate Workflow Support
5. Create Ongoing Accountability

Accuracy of Capture

Source: Financial Leadership Council interviews and analysis.
1. The Need for Revenue Cycle Excellence

2. Four Requirements of Transformational Performance

3. Identifying Strengths and Opportunities
Benchmarks Necessary, But Not Sufficient

Qualitative Assessment Also Required To See Full Picture of Performance

Key Quantitative Metrics

- Point-of-Service Collections
- Revenue Cycle Efficiency
- Initial Denials
- Denial Write-Offs
- Appeal Success Rate
- Bad Debt

Questions Unanswered by Benchmarks

- How integrated is my billing office?
- Are my front-office staff well-trained in customer service?
- How frequently should we be tracking denials data?
- Do I need to have prices available for all procedures on our website?
- Are other organizations using Financial Counselors?
- Is my CDI program well-integrated with my coders?
Introducing the Hospital Revenue Cycle Maturity Model

Tool to Identify Strengths and Unearth Opportunities

What is a maturity model?
A model that assesses current organizational capabilities and assets, gauging how current performance compares to peer organizations, and outlining the path for continuous improvement.

What is the Advisory Board’s Revenue Cycle Maturity Model?
The Maturity Model maps organizational capabilities within each revenue cycle component on a scale of one to four. A score of one indicates that the organization is lagging behind market peers, while a score of four indicates that the organization is transforming revenue cycle operations in that particular area.

Why is the Revenue Cycle Maturity Model necessary?
In the face of a wave of market and demographic forces that place downward pressure on reimbursement amid a rising tide of costs, the revenue cycle remains an important strategic lever for hospitals to bolster financial performance and overall margins.

Advisory Board’s Revenue Cycle Maturity Model provides a qualitative method for evaluating organizational capabilities across three key imperatives, critical for successful revenue cycle operations and effective revenue capture.
Assessing Capabilities Across Strategic Imperatives

<table>
<thead>
<tr>
<th>Superior Patient Financial Experience</th>
<th>Strengthened Clinical Partnerships</th>
<th>Data-Driven Payer Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Providers must manage consumers’ financial expectations and eliminate frustrations by ensuring reasonably accurate price estimates, offering easy point-of-service payments, and enabling a seamless payment process following discharge.</td>
<td>Both clinical and revenue cycle leadership must underscore the importance of mid-cycle functions to both quality and financial outcomes. Critical to this is a fully integrated CDI department, a robust physician education program for all physicians, and accurate and efficient coding.</td>
<td>While typically managed within the back office, denials originate at patient access or within the mid-cycle. Both staff and systems must have visibility into denials, with data being used to inform payer interactions, including contract negotiation.</td>
</tr>
</tbody>
</table>

**Common pain points**
- Inability to generate single patient bill
- Subpar staff customer service training
- Lack of accurate patient estimates

**Common pain points:**
- Lack of physician engagement
- Haphazard coding and documentation training
- Subpar technology solutions

Source: Financial Leadership Council interviews and analysis.
Model Defines Levels of Revenue Cycle Maturity

Comparing System Capabilities Against Market Peers

Revenue Cycle Maturity Model

1. **Lagging Behind Market Peers**
   Recognize well established trends and establish basic infrastructure to respond to market pressure, but unable to execute upon strategic goals or deploy infrastructure optimally.

2. **Reacting to Market Pressures**
   Achieve measurable performance improvement for defined goals by implementing a limited amount of foundational best practices—impact on competitive advantage depends on market maturity.

3. **Leading Peers in Best Practices**
   Lead market performance for defined goals by implementing best practices—typically progressive institutions with significant investment in capabilities and performance tracking.

4. **Transforming Revenue Cycle Performance**
   Redefine performance potential with true innovation to create a new aspirational standard—for example, creating a customized patient financial experience. Few institutions have transformative capabilities in place.

Source: Financial Leadership Council interviews and analysis.
Qualitative Performance Informs Final Maturity Level

Benchmarking Qualitative Performance Against Peers

Achieving a “Three” and a Leading ranking requires performance within the 75th percentile or above on five overall revenue cycle performance metrics.

- Days in AR
- POS Collections
- Initial Denials
- Cost-to-Collect
- Bad Debt

<table>
<thead>
<tr>
<th>Metric</th>
<th>75th Percentile</th>
<th>Your Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Days in AR</td>
<td>35 Days</td>
<td></td>
</tr>
<tr>
<td>POS Collections</td>
<td>2.68% of NPR</td>
<td></td>
</tr>
<tr>
<td>Initial Commercial Denials</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Cost-to-Collect</td>
<td>2.2% of NPR</td>
<td></td>
</tr>
<tr>
<td>Bad Debt</td>
<td>2.0% of NPR</td>
<td></td>
</tr>
<tr>
<td>DNFB</td>
<td>6 Days</td>
<td></td>
</tr>
</tbody>
</table>

Source: Financial Leadership Council interviews and analysis.
## A Closer Look at the Patient Financial Experience

### PFE Portion of Model Comprised of Three Parts

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effortless Patient Access</td>
<td>Accurate Picture of Financial Responsibility</td>
<td>Customized and Comprehensive Payment Options</td>
<td>Transforming</td>
</tr>
</tbody>
</table>

### Rank Statements

<table>
<thead>
<tr>
<th>1 - Lagging</th>
<th>2 - Reacting</th>
<th>3 - Leading</th>
<th>4 - Transforming</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front-end operations are disjointed, decentralized, and facility-, rather than patient-focused.</td>
<td>Leaders recognize the need for connectivity and consistency in front-end operations across sites of care, with some progress toward that goal.</td>
<td>Organization deploying consumer-focused best practices, elevating expectations of staff performance and removing barriers to care and payment</td>
<td>Organization has redesigned the front end to be entirely patient-centered, and has redefined the patient financial journey.</td>
</tr>
</tbody>
</table>

### Determining Capabilities

<table>
<thead>
<tr>
<th>1 - Lagging</th>
<th>2 - Reacting</th>
<th>3 - Leading</th>
<th>4 - Transforming</th>
</tr>
</thead>
<tbody>
<tr>
<td>No online scheduling available</td>
<td>Online scheduling limited to certain sites/schedulable procedures</td>
<td>Online scheduling across all hospital sites available on same website for schedulable procedures</td>
<td>Online scheduling across all sites of care/schedulable procedures</td>
</tr>
<tr>
<td>De-centralized call centers</td>
<td>Limited call center centralization</td>
<td>Centralized call center with customer service training, standardized scripting and protocols</td>
<td>Centralized call center, with protocols, scripting to allow customized patient experience</td>
</tr>
<tr>
<td>Lack of consistent staff training</td>
<td>Some training available</td>
<td>Integrated scheduling and pre-registration</td>
<td>Integrated scheduling, pre-registration, preauthorization</td>
</tr>
<tr>
<td>Lack of consistent scripting/protocols</td>
<td>Some scripting provided</td>
<td>Dedicated preauthorization staff centralized at hospital level</td>
<td>Staff able to triage certain conditions via protocols to optimal site of care</td>
</tr>
<tr>
<td>Physician offices retain preauthorization responsibilities</td>
<td>Preauthorization responsibility at hospital department level</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>