Building a System of CARE
Population Health Implications

Joan Moss, RN, MSN
Senior VP, CNO
The Changing Health Care Landscape

Building Out a System of CARE
In Health Care, Change Is Coming at Us Fast

Slumping Inpatient Volumes

Inpatient Volumes Forecast:
- 2014: 30 million
- 2019: 32 million (5-year forecast, +2%)
- 2024: 33 million (10-year forecast, +3%)

Proliferating Virtual Health

Continuing M&A

Increasing Consumerism

Population Health

A Framework for Population Health Management

- Population Identification
- Health Assessment
- Risk Stratification

Health Continuum:
- Low or No Risk
- Moderate Risk
- High Risk

Portfolio of Health Management Interventions:
- Preventive Services
- Lifestyle Coaching
- Transitional Care
- Complex Care Management
- Palliative and End-of-Life Care

Note: Forecast excludes ages 0–17. IP = inpatient; M&A = mergers and acquisitions. Sources: Impact of Change® v14.0; NIS; PharMetrics; CMS; Sg2 Analysis, 2014; American Hospital Association. Trendwatch: Are Medicare Patients Getting Sicker? December 2012.
Deteriorating Inpatient Volumes Cut Bed Need; Outpatient Volumes Continue to Grow

**Adult Inpatient Forecast**
US Market, 2014–2024

<table>
<thead>
<tr>
<th></th>
<th>Discharges</th>
<th>Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Millions</td>
<td>Billions</td>
</tr>
<tr>
<td><strong>2014</strong></td>
<td>30</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>2019</strong></td>
<td>32</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>2024</strong></td>
<td>34</td>
<td>3.5</td>
</tr>
</tbody>
</table>

5-Year Forecast:
- +7%
- +14%
- -2%
- -3%

10-Year Forecast:
- +15%
- +14%
- -3%

**Adult Outpatient Forecast**
US Market, 2014–2024

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<tr>
<td><strong>2024</strong></td>
<td>34</td>
<td>3.5</td>
</tr>
</tbody>
</table>

5-Year Forecast:
- +14%
- +7%

10-Year Forecast:
- +21%
- +14%

Note: Forecast excludes ages 0–17. IP = inpatient; OP = outpatient.
Sources: Impact of Change® v14.0; NIS; PharMetrics; CMS; Sg2 Analysis, 2014.
Deteriorating Inpatient Volumes Cut Bed Need; Outpatient Volumes Continue to Grow

Adult Inpatient Forecast
Lane County Market, 2014–2024

<table>
<thead>
<tr>
<th>Discharges</th>
<th>5-Year</th>
<th>10-Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thousands</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>19</td>
<td>-1%</td>
</tr>
<tr>
<td>2019</td>
<td>27</td>
<td>9%</td>
</tr>
<tr>
<td>2024</td>
<td></td>
<td>18%</td>
</tr>
</tbody>
</table>

Note: Forecast excludes ages 0–17. IP = inpatient; OP = outpatient. Service area for analysis = Lane County.
Sources: Impact of Change® v14.0; NIS; PharMetrics; CMS; Sg2 Analysis, 2014.

Adult Outpatient Forecast
Lane County Market, 2014–2024

<table>
<thead>
<tr>
<th>Volumes</th>
<th>5-Year</th>
<th>10-Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Millions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>3</td>
<td>6%</td>
</tr>
<tr>
<td>2019</td>
<td></td>
<td>12%</td>
</tr>
<tr>
<td>2024</td>
<td></td>
<td>19%</td>
</tr>
</tbody>
</table>

Note: Forecast excludes ages 0–17. IP = inpatient; OP = outpatient. Service area for analysis = Lane County.
Sources: Impact of Change® v14.0; NIS; PharMetrics; CMS; Sg2 Analysis, 2014.
2014 Site of Care Volumes and 5-Year Forecast, Adults
US Market, 2014–2019

- **Office/Clinic**: Volume 2.2 Billion, +12%
- **Urgent/Retail Care**: Volume 193M, +17%
- **SNF**: Volume 193M, +14%
- **Inpatient**: Volume 27M, -3%
- **Hospital OP/ASC**: Volume 393M, +11%
- **Virtual**: Volume in 2019 50M, +5%
- **In 2019, 4% of all E&M visits will be delivered in a virtual care setting.**

Note: The analysis excludes ages 0–17. ASC = ambulatory surgery center; E&M = evaluation and management; *IR=IP rehab; SNF = skilled nursing facility. Sources: Impact of Change® v14.0; NIS; PharMetrics; CMS; Sg2 Analysis, 2015.

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System of CARE Builds the Foundation for Success

2013 Site of Care Volumes and 5-Year Forecast, Adults
Lane County Market, 2014–2018

Note: The analysis excludes ages 0–17, Obstetrics and Psychiatry. ASC = ambulatory surgery center; E&M = evaluation and management; *IR=IP rehab; SNF = skilled nursing facility. Analysis service area = Lane County. Sources: Impact of Change® v14.0; NIS; PharMetrics; CMS; Sg2 Analysis, 2015.

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## Evolution of Volume to Value Shift: Population Health Leads the Effort

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>ACA signed into law</td>
</tr>
<tr>
<td>2011</td>
<td>CalPERS reference pricing launches.</td>
</tr>
<tr>
<td>2012</td>
<td>Medicare Shared Savings ACOs begin</td>
</tr>
<tr>
<td>2013</td>
<td>Bundled Payments for Care Improvement (BPCI) initiative starts.</td>
</tr>
<tr>
<td>2016</td>
<td>30% of Medicare payments tied to value-based models</td>
</tr>
<tr>
<td>2018</td>
<td>Medicare Advantage will be the pervasive reimbursement.</td>
</tr>
<tr>
<td>2020</td>
<td>50% of Medicare payments in value-based models</td>
</tr>
</tbody>
</table>

*CalPERS = California Public Employees’ Retirement System.*

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ACOs Are a First Step Towards Population Health

Number of ACOs Over Time

- **Q1 2011**: 65
- **Q1 2012**: 148
- **Q1 2013**: 456
- **Q2 2014**: 626

Nationally, 6% of the population is estimated to be enrolled in an ACO.

ACO = accountable care organization.
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What Have We Learned?

**MEDICARE ACO UPDATE**

- Both Medicare ACO programs showed significant improvement in quality metrics
- Pioneer ACO results
  - Year 1: 12 of 32 (37%) earned shared savings
  - Year 2: 11 of 20 (55%) earned shared savings
- MSSP results
  - 53 of 220 (24%) qualified for shared savings

**TAKEAWAYS**

- Opaqueness of attribution models
- Continued claims lag
- Persistent leakage challenges
- Push toward broader risk models (eg, Medicare Advantage)

MSSP = Medicare Shared Savings Program.
What Have We Learned?
The Good News

CalPERS ACO, NORTHERN CA

$105 million in gross savings

+3% annualized cost trend

-25% days/1,000

-25% out-of-network claims

23% increase in ED visits/1,000

CalPERS = California Public Employees' Retirement System.
Sources: Melnick G and Green L. Four Years Into a Commercial ACO for CalPERS: Substantial Savings and Lessons Learned. Health Affairs blog. April 17, 2014.
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Expect Increased Use of Home Health and SNF with New Value Based Payment Models

Differences in PMPM Spending Growth for All Pioneer ACO-Aligned and Comparison Market Beneficiaries, 2011–2012

<table>
<thead>
<tr>
<th>Service</th>
<th>Difference Compared to Local Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>–$19.97</td>
</tr>
<tr>
<td>Outpatient</td>
<td>–$3.10</td>
</tr>
<tr>
<td>Physician</td>
<td>–$2.34</td>
</tr>
<tr>
<td>Inpatient</td>
<td>–$3.91</td>
</tr>
<tr>
<td>SNF</td>
<td>$0.98</td>
</tr>
<tr>
<td>Home Health</td>
<td>$0.84</td>
</tr>
<tr>
<td>Hospice</td>
<td>–$0.10</td>
</tr>
<tr>
<td>DME</td>
<td>$0.04</td>
</tr>
</tbody>
</table>

ACO = accountable care organization.

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The Changing Health Care Landscape

Building Out a System of CARE
### Planning for Systems of CARE

<table>
<thead>
<tr>
<th>Step</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Find the right starting point.</td>
</tr>
<tr>
<td>2</td>
<td>Profile your current System of CARE.</td>
</tr>
<tr>
<td>3</td>
<td>Identify gaps and set priorities.</td>
</tr>
<tr>
<td>4</td>
<td>Forge and manage partnerships.</td>
</tr>
<tr>
<td>5</td>
<td>Design a leadership model.</td>
</tr>
<tr>
<td>6</td>
<td>Update your performance management system.</td>
</tr>
<tr>
<td>7</td>
<td>Develop an implementation road map.</td>
</tr>
<tr>
<td>8</td>
<td>Communicate.</td>
</tr>
</tbody>
</table>
Why Refocus Population Health Efforts?

Determinants of Health

- Shortfalls in Medical Care 10%
- Behavioral Patterns 40%
- Genetic Predispositions 30%
- Social Circumstances 15%
- Environmental Exposures 5%

Sg2 Sites of Care Highlight Growth Opportunities Across the Continuum

2014 Site of Care Volumes and 5-Year Forecast, Adults
US Market, 2014–2019

- **Volume in 2019**
  - **Virtual**
    - **Office/Clinic**: +12% Volume 2.2 Billion
    - **Urgent/Retail Care**: +9% Volume 10M
    - **SNF**: +7% Volume 193M
    - **Inpatient**: +3% Volume 27M
  - **Hospital OP/ASC**: +11% Volume 393M
  - **Home**: +17% Volume 6M
  - **Other**: +14% Volume 180M

Note: The analysis excludes ages 0–17. ASC = ambulatory surgery center; E&M = evaluation and management; SNF = skilled nursing facility.

Sources: Impact of Change® v14.0; NIS; PharMetrics; CMS; Sg2 Analysis, 2014.

In 2019, 4% of all E&M visits will be delivered in a virtual care setting.
Navigation Model Evolves to Address Workforce Sustainability

HEALTH EAST CARE SYSTEM, TWIN CITIES’ EAST METRO AREA, MINNESOTA

Background
• System desired effective strategies to coordinate care of medical home patients.
• It employs over 300 physicians, primarily PCPs.

Program Design
• “Care guides” form central hub of patient care.
  • Embedded in PCP clinics (about 1 per 5 PCPs)
• Panel size is 100 to 125 patients.
  • Develop plan with patient prior to physician visit.
  • Meet monthly with medical team for case review.
• PMPM payment offered for Medicaid and (via waiver) Medicare.

Results Cohort 1
31%↓ in ED visits
45%↓ in admissions
Improvement in statewide diabetes measures

PCP = primary care physician; PMPM = per member per month. Note: Care guides are nonclinical patient navigators. Source: Sg2 Interview With HealthEast Care System, March 2014.
By 2020, Walmart and pharmacy-based clinics combined will be the largest providers of primary care services.

WALGREENS HEALTHCARE CLINICS

Annual percentage of return patient visits increased from 15% in 2007, to more than 50% in both 2012 and 2013.

CASE STUDY
Remote Monitoring Drives Down Readmissions

LEE MEMORIAL HEALTH SYSTEM, FLORIDA

Challenge
• Controlling readmission rates for patients who have CHF (national average of 22% to 25%)

Program Development
• Remote monitoring pilot program for CHF patients began with 50 units in 2010.
• Patients transmit weight and vitals daily by 10:00 am; RNs analyze data.
• Each patient has an individualized range of acceptable values.
• Program cost $388,000 in FY 2013.

Results
• Readmission rates for telehealth patients were cut in half (now 9% to 12%).
• $1.9 million was saved in FY 2013.
• Program has expanded to include patients with COPD, AMI and pneumonia.

Key Lesson Learned
• Medication management is critically important.

AMI = acute myocardial infarction; CHF = congestive heart failure; COPD = chronic obstructive pulmonary disease; FY = fiscal year.
Source: Sg2 Interview With Lee Memorial Health System, 2014.
## Case Study: Build Out Your Post-Acute Care Network Through Partnerships

### Advocate Health Care, Downers Grove, IL

Tiered SNFs based on discharge volumes and available services

<table>
<thead>
<tr>
<th>Tier 1</th>
<th>Tier 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>• SNFists round on attributed patients, visits within 48 hours of admission and three times weekly</td>
<td>• Reviews SNF report card: 30-day readmission, average LOS; Advocate captures rate postdischarge.</td>
</tr>
<tr>
<td>• Assures continuity of care through participation in SNF weekly interdisciplinary meetings</td>
<td>• Provides clinical education: SBAR, CHF management, pain assessment</td>
</tr>
<tr>
<td>• Identifies educational needs of SNF staff and provides on-site training</td>
<td></td>
</tr>
</tbody>
</table>

### Results

- 2013 data show that 6,145 Advocate patients were admitted to partner SNFs.
- SNF LOS was 18.3 days (national average of 27.2 days for Medicare FFS beneficiaries).
- Upon SNF discharge, 75.4% of patients transitioned to Advocate home-based services.
- 30-day readmission rate was 14.7% (national average ~20%).

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CHF = congestive heart failure; FFS = fee for service; LOS = length of stay; SBAR = situation, background, assessment, recommendation; SNF = skilled nursing facility.

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Future-Focused Organizational Structure Emphasizes Alignment With System Goals

Organization Chart: Fully Integrated, Ambulatory Focused

- **Chief Executive Officer**
- **Chief Medical Officer**
  - Owns care coordination strategy, physician clinical alignment and PCMH initiatives
- **Chief Financial Officer**
- **Chief Information Officer**
- **Director, Clinical Service Operations**
  - Oversees care coordination across all sites
- **Clinical Team Managers/Care Coordinators**
  - Ambulatory, extending across continuum
- **Clinical Team Managers/Care Coordinators**
  - Inpatient
- **Clinical Team Managers/Care Coordinators**
  - Post-acute and palliative

**PCMH = patient-centered medical home.**
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Innovative Physician Group Manages Utilization and System of CARE Gaps

MONARCH HEALTHCARE, ORANGE COUNTY, CALIFORNIA

Initiative

- All 185,000 members are risk stratified.
- Care coordinators manage post-acute care transitions for 1,600 high-risk patients.
- An additional 800 to 1,000 high-risk patients receive longer-term active case management for chronic conditions.

Services Include

- Assessing postdischarge needs
- Ensuring pharmacist reconciles medications
- Scheduling PCP follow-up visits within one week
- Facilitating connections with other care team members

<table>
<thead>
<tr>
<th>Utilization Benchmark</th>
<th>2011 Orange County Medicare FFS</th>
<th>2013 Monarch Pioneer ACO Target Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital Admissions/1,000</td>
<td>277</td>
<td>230–250</td>
</tr>
<tr>
<td>30-Day Readmissions</td>
<td>16.7%</td>
<td>15.0%–15.5%</td>
</tr>
<tr>
<td>SNF Admissions/1,000</td>
<td>239</td>
<td>205–215</td>
</tr>
</tbody>
</table>

FFS = fee-for-service.
Source: Sg2 Interview With Colin LeClair, Executive Director, ACO, Monarch HealthCare, OptumHealth, 2013.
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Performance Metric Development Timeline

CURRENT (1–2 years)
- Site-specific performance metrics
- EMR rollout and training completion

EVOLVING (2–4 years)
- Site-neutral performance metrics
- EMR interoperability across owned sites of care

FUTURE (4–5 years)
- System of CARE performance metrics
- EMR connectivity at affiliate sites

Update your performance management system
Implementation: Insights and Challenges

1. Be deliberate in your path to evolving your System of CARE by aligning with the organization’s strategic plan.

2. Initial efforts will likely be funded from the bottom line; long-term ROI may depend on organizational willingness to assume risk and emerging payment models.

3. Effective initiatives will require strong physician leadership, alignment, buy-in and participation.

4. Be creative and seek out symbiotic partnerships; owning every node on the System of CARE is not the only option.
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