Healthcare Supply Chain Trends

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LEARNING OBJECTIVES:

• Analyze the supply chain trends affecting healthcare executives today.
• Identify key areas for improving supply chain efficiencies.
• Discuss the benefits of and the best ways to implement lean supply chain efficiencies.
2017 CAPS Research Trends Study: Managing Toward the Future

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&
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http://www.capsresearch.org/health-sector-advisory-group/
Organization for the Presentation

• CAPS Research Trends Study Background
• Findings
• Implications for Practice
• Are we Different From other Industries?
• Questions
CAPS RESEARCH
STUDY BACKGROUND AND METHODOLOGY
Study Background:
What we had observed prior to the study

- Collaboration with partners being reconsidered
- Mergers and acquisitions
- Integration on the minds of supply chain consultants and regulators
- Growing recognition of the strategic nature of health sector supply chain
- PPI Management  UDI application very uneven
- Analytics, big data, cloud computing other IT seen as a “solution”
What we had observed prior to the study

➢ Technological advances – such as 3D printing was appearing frequently
➢ Threat of counterfeiting and cybersecurity in the supply chain
➢ Huge pressures on SC to be both strategic and tactical
➢ Pressure SC to react to and buffer from uncertainties in the market
Drivers have changed

➢ Provider need to deal with the episode of care & cost
➢ Distributor need to deal with the full ecosystem distribution needs
➢ GPO need to buffer against the coming wave of electronic exchanges and stakeholder expectations
➢ Supplier challenged to meet goals of both economic and clinical customers

Source: KPMG 2017
A two pronged strategy by providers, distributors and suppliers

- Consolidate
  - Reconsideration of insource vs outsource options
  - Rationalization of care
  - Standardization
  - Move care to home
  - Hospital > Acuity

- Disintermediate
2017 CAPS Research Trends Study – Respondent Population

Types of Organizations Represented

- Health care provider (hospital/IDN), 63%
- Health care products and/or services...
- Health care products distributor, 1%
- IT hardware, services organization, 1%
- Other, 7%
- Group Purchasing Organization (GPO), 7%

115 Respondents

91% Of respondents consider themselves to be supply management/procurement professionals
Requested Respondent look at own supply chain

SUPPLIER’S OWN SUPPLY CHAIN
Upstream - tier partners
Networks – value & risk
Downstream o customer

PROVIDER’S OWN SUPPLY CHAIN
Downstream - To end-user
Trading partner relationships
Emerging technology
Predetermined Areas for inquiry

- Economic
- Management
- Integration
- Organization
- Technology
- Supplier Relationship Management
- Value-Based Purchasing
- Healthcare Reform
## Management trend and challenge items

- Entry Level SC Talent
- Global Sourcing
- Growth of UDI
- M&A Impact on SC
- Purchasing Services
- Succession Planning
- Supplier Rationalization

- SC Role in Managing Counterfeit Products
- Utilization Management
- SC Role with Patient Wearable Technologies
- Use of Data Analytics
- Use of Big Data
- Use of SC Performance Benchmarks
Organization & Reform Items

Organization Trends
  • Physician Leadership in SC Management
  • Repositioning SC as a Strategic Function

Reform Trends
  • Ongoing Health Reform
  • Potential Change/Repeal of the ACA
Relationship and Value-Based Purchasing Items

Supplier Relationship Management

• Building Trust with SC Partners
• Changing Role of Supplier Reps

Value-Based Purchasing

• Focusing on Triple Aim Goals
• Improving Data Transparency Across the SC
• Managing the Cost of Supply
• SC’s Role Across the Episode of Care.
FINDINGS
<table>
<thead>
<tr>
<th>The Top Trends</th>
<th>The Bottom Trends</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expectations for Savings from Supply Chain</td>
<td>SC Role in Managing Counterfeit Products</td>
</tr>
<tr>
<td>Performance</td>
<td></td>
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<tr>
<td>Managing the Cost of Supply</td>
<td>Involvement of Third Party Payors in Supply Chain</td>
</tr>
<tr>
<td>Use of Data Analytics</td>
<td>Decisions</td>
</tr>
<tr>
<td></td>
<td>Impact of 3-D Printing on Supply Chain</td>
</tr>
</tbody>
</table>

- **Expectations for Savings from Supply Chain Performance**: 5.73
- **Managing the Cost of Supply**: 5.67
- **Use of Data Analytics**: 5.66
- **SC Role in Managing Counterfeit Products**: 3.62
- **Involvement of Third Party Payors in Supply Chain Decisions**: 3.51
- **Impact of 3-D Printing on Supply Chain**: 2.83
Prevalent Economic items:
Important by 80% of either supplier or provider

<table>
<thead>
<tr>
<th>PREVALENT ECONOMIC ITEMS*</th>
<th>PERCENT PROVIDER FOCUS</th>
<th>PERCENT SUPPLIER FOCUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expectations for Savings from SC Performance</td>
<td>96%</td>
<td>96%</td>
</tr>
<tr>
<td>Managing the costs of supplies</td>
<td>94</td>
<td>88</td>
</tr>
</tbody>
</table>
## Prevalent Integration Items

<table>
<thead>
<tr>
<th>PREVALENT INTEGRATION ITEMS*</th>
<th>PERCENT PROVIDER FOCUS</th>
<th>PERCENT SUPPLIER FOCUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieving Information Technology Integration</td>
<td>93</td>
<td>79</td>
</tr>
<tr>
<td>Integration of SC Throughout the Organization</td>
<td>94</td>
<td>83</td>
</tr>
<tr>
<td>Managing Physician Preferences Items</td>
<td>89</td>
<td>77</td>
</tr>
<tr>
<td>Physician Alignment SC Goals</td>
<td>88</td>
<td>77</td>
</tr>
<tr>
<td>Integrating Sc Data with Clinical Data</td>
<td>87</td>
<td>87</td>
</tr>
</tbody>
</table>
Prevalent Management, Organization and Channel Partner Trends.

<table>
<thead>
<tr>
<th>PREVALENT MANAGEMENT, ORGANIZATION AND CHANNEL PARTNER ITEMS*</th>
<th>PERCENT PROVIDER FOCUS</th>
<th>PERCENT SUPPLIER FOCUS</th>
</tr>
</thead>
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<tr>
<td>Use of Data Analytics</td>
<td>94</td>
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<td>Use of SC Performance Benchmarks</td>
<td>93</td>
<td>83</td>
</tr>
<tr>
<td>Repositioning SC as a Strategic function</td>
<td>88</td>
<td>88</td>
</tr>
<tr>
<td>Building Trust with Supply Chain Partners</td>
<td>86</td>
<td>92</td>
</tr>
</tbody>
</table>

*A prevalent item is one scored as important or very important by at least 80% of either supplier or provider respondents.
## Prevalent Value-Based Purchasing Items.

<table>
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<th>PERCENT PROVIDER FOCUS</th>
<th>PERCENT SUPPLIER FOCUS</th>
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</tr>
<tr>
<td>Managing the Cost of Supply</td>
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<td>88</td>
</tr>
</tbody>
</table>
Top and Bottom Rated Items

 Suppliers

 Top Items
 • Building Trust With SC Partners
 • Expectations For Savings
 • Use Of Data Analytics

 Bottom Items
 • SC Role In Managing Counterfeit Items
 • Involvement Of Payors In SC Decisions
 • Impact Of 3D Printing

 Providers

 Top Items
 • Expectations For Savings From SC
 • Managing The Cost Of Supplies
 • Use Of Data Analytics

 Bottom Items
 • SC Role in Managing Counterfeit Items
 • Global Sourcing
 • Impact of 3D Printing
### What Is Not Important – Or Of Uncertain Importance

<table>
<thead>
<tr>
<th>SUPPLIERS</th>
<th>PROVIDERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact of 3D printing on SC</td>
<td>Impact of 3D printing on SC</td>
</tr>
<tr>
<td>• 8% NA – 20% DK</td>
<td>• 3% NA – 16% DK</td>
</tr>
<tr>
<td>Focusing of Triple Aim Goals</td>
<td>Supply Base Reduction</td>
</tr>
<tr>
<td>• 8% NA - 12% DK</td>
<td>• 0% NA – 14% DK</td>
</tr>
<tr>
<td>Physician Leadership in SC Mgt</td>
<td>Change/Repeal of the ACA</td>
</tr>
<tr>
<td>• 4% NA – 12% DK</td>
<td>• 3% NA – 7% DK</td>
</tr>
</tbody>
</table>
Implications for Practice
Clinical Integration as a Management Theme

- Integration of Supply Chain throughout the Organization
- Managing Physician Preference Items (PPI)
- Physician Alignment with Supply Chain Goals
- Integrating Supply Chain Data and Clinical Data
Externalities and the unknown as management themes

- Global Sourcing
- Growth of Consolidated Service Centers
- Mergers and Acquisition (M&A) Impact on Supply Chain Performance
- Ongoing reform
- Repeal of the ACA
SC Role – Orchestration to Connect the unconnected

- Repositioning SC
- Orchestration Role
- Managing Costs
- Big Data
- Metrics
Top Item Persistence is Not Reflecting Progress

The Persistence of ‘Classic’ Issues

Repositioning
SC Function

Supply Chain Performance Metrics
Managing Cost
Integration Items “Hang Together”

Managing Physician Preference Items

Integrating Supply Chain Data and Clinical Data

Multiple Dimensions to Integration

Integration of Supply Chain throughout the Organization

Physician Alignment with SC Goals
Industry Evolution items “Hang Together”

- Global Sourcing
- Mergers & Acquisitions

Industry Evolution & Externalities

- Growth of Consolidated Service Centers
SC Is Inward Looking

Ongoing Healthcare Reforms

Use of Big Data

Little attribution to Importance to the Unknown

Change/Repeal of the Affordable Care Act
ARE WE DIFFERENT FROM OTHER INDUSTRIES?
Why collaboration & integration is so difficult?

➢ Time span – Relationship building takes time.
➢ IT infrastructure – lack of connectivity & common platform for data communication and information exchange.
➢ Trust – an unwillingness to share core information
➢ Organization design – the “Functional” silos in organizations overpower the roles designed to foster collaboration between parties.

Why Collaboration & Integration So Difficult?

- Competition – fears that integration might limit responsiveness to major changes in the competitive environment.
- Powerhouses within the organization – different functional departments are eager to maintain their bargaining power.
- Conflicting business cultures; conflicting goals and values, etc.

DEALING WITH THE FUTURE IS DIFFICULT
Healthcare Supply Chain Trends

Ed Hisscock
VP, Strategic Sourcing & Transformation Officer, Trinity Health
Endeavor to One

Every physical handoff and information exchange represents added cost and creates opportunity for error and waste.
### Healthcare Trade Relationship Waste

#### SG&A Expense as a Percentage of Sales by Industry Sector

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>10% ile</th>
<th>Median</th>
<th>90% ile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td>2.49</td>
<td>9.37</td>
<td>29.11</td>
</tr>
<tr>
<td>Materials</td>
<td>4.45</td>
<td>10.15</td>
<td>25.52</td>
</tr>
<tr>
<td>Industrials</td>
<td>6.99</td>
<td>16.95</td>
<td>36.17</td>
</tr>
<tr>
<td>Consumer Discretionary</td>
<td>7.97</td>
<td>22.88</td>
<td>47.67</td>
</tr>
<tr>
<td>Consumer Staples</td>
<td>7.49</td>
<td>23.26</td>
<td>52.80</td>
</tr>
<tr>
<td>Health Care</td>
<td>12.83</td>
<td>38.50</td>
<td>67.34</td>
</tr>
<tr>
<td>Financials</td>
<td>6.60</td>
<td>38.85</td>
<td>53.32</td>
</tr>
<tr>
<td>Information Technology</td>
<td>14.14</td>
<td>37.61</td>
<td>74.02</td>
</tr>
<tr>
<td>Telecommunication Services</td>
<td>9.42</td>
<td>23.12</td>
<td>49.15</td>
</tr>
<tr>
<td>Utilities</td>
<td>3.81</td>
<td>17.10</td>
<td>46.45</td>
</tr>
<tr>
<td>Real Estate</td>
<td>3.54</td>
<td>8.80</td>
<td>26.03</td>
</tr>
<tr>
<td>All sectors combined</td>
<td>6.49</td>
<td>25.00</td>
<td>54.74</td>
</tr>
</tbody>
</table>
Cost of Revenue (31%): Impacted by SKU Reduction & Formulary Sourcing

SG&A (30%): Impacted by the DISC Strategy

Marketing and R&D (27%): Impacted by Patient Bill of Materials / Clinical Informatics

Profit (22%): Traditional Strategic Sourcing

IDN SUMMIT
AND REVERSE EXPO
Leaning Out The Trade Relationship

- Current state workshops with Supply Chain / S&OP team
  - How is demand expressed?
  - What are the resulting pick, pack & ship steps?
- Future state modeling
  - Optimize flow: Demand to Receipt into the Trinity DISC
  - Identify waste and negotiate share
  - Kickoff project to eliminate
Current State – 1 week of Orders - WORKSHOP
Future State
From this....

To this.......
Waste....
Healthcare Supply Chain Trends

Ed Hardin
Senior VP, Supply Chain Management, Beaumont Health
Beaumont Health Organizational Overview

• Michigan’s largest health system with
  – $4.5b in net revenue
  – 8 hospitals, 168 outpatient sites
  – 3,400 licensed beds
  – 87 accredited residency and fellowship programs
  – 5,000 staff physicians
  – 35,000 employees

• Service Statistics
  – 177,508 discharges
  – 567,658 emergency visits
  – 17,536 births
Beaumont Health Organizational Overview (cont.)

• *U.S. News & World Report* “America’s Best Hospitals” recognizes 4 Beaumont hospitals in the Top 10 in Metro Detroit

• World-class capabilities in the areas of:
  – Cardiology & Heart Surgery
  – Neurology & Neurosurgery
  – Orthopedics

• Our largest facility, Beaumont Health Royal Oak, is the recipient of the 2017 *Vizient Supply Chain Performance Excellence Award* (third straight year)
We have pictures too!

• Frequently have partnered with Halyard on optimizing our operations and particularly our CSC
• 59 SKUs for sterilized wrap, including 2 product lines
• $890,000 annual spend
• 48 pallet locations and 19 hand stack locations
Supplier Collaboration Gets Results...Sort Of

• Reduced the number of SKUs to 25 and 1 product line
• Reduced pallet and hand stack locations to 24 and 12, respectively, freeing up nearly 3,000 cubic feet
• Dropped annual spend by $11,800 as a result of aggregation
Does Collaboration Deserve the Positive Press?

• Fad Overload or Key to Unlocking Value
  – Is the juice worth the squeeze?
• Rob Cross examines this dilemma in his *HBR IdeaCast*:
  “Most every large organization is in some form of matrix-based structure that forces more collaborations throughout the enterprise, a greater usage of email today, greater social media usage, globalization efforts that force interactions across geography and time zones, a great complexity and interdependence of most forms of work...that really seem to create the overload on people today.”
  – Excessive Collaboration
• From 2011-2016, AHRMM research identified only 13 published healthcare articles that provided specific examples of supplier-customer collaboration leading to some measurable benefit
• From 2009-2016, ACHE, AHRMM and HFMA annual conferences have dedicated <3% of educational sessions to supplier-customer collaboration
• Yet we speak about it as if it happens every day...
Why So Few Transformative Examples?

• We confuse collaboration with daily work and contractual expectations...the very usual
• We want to tweak the current state not redefine the paradigm
  – this is often the case with Lean initiatives
  – we are extremely risk averse
• We have not identified (and measured) what is in it for all parties
• We pick the wrong suppliers to work with
So What Can Be Done?

1. Embrace three tenets:
   (1) at its core, collaboration is co-laboring – working together when there is no formal obligation to do so and oftentimes because you want others to experience success as much as you
   (2) for good ideas and true innovation, you need human interaction, conflict, argument, debate - Margaret Heffernan
   (3) while it is most true that innovation (aka transformation) cannot and will not come without collaboration, the corollary is not

2. Select BHAGs not the ho-hum
   – sometimes these may only be transformative relative to your current environment
   – triangulate the most relevant thought leaders you know and seek their input

3. Hire and develop unconventional talent – See 2/11/17 Modern Healthcare article by Adam Rubinfire

4. Select and work with the right supplier partner...
So What Can Be Done? (cont.)

Pick the Right Supplier Partner*
1. Selection of the relationship must be defensible
2. The relationship must be exclusive but not entitled
3. The relationship must be measurable with a formal rewards/recognition process
4. The relationship must be intentional
5. The relationship must be relentlessly and internally socialized (while avoiding entitlement messaging)
6. What is learned must be codified and adopted by the rest of the vendor community
7. Expectations for the relationship must grow

* Taken from Fall 2016 IDN Summit, “In Pursuit of Meaningful and Tangible Customer-Supplier Collaboration”