

Hospital Supply Chain Software Sector Observations

February 2021

Pandemic Highlights Need for Supply Chain Software Solutions

Hospital supply chain management is at an inflection point and has proven to be a mission-critical function within the healthcare ecosystem.

- Supply chain is a critical and expensive function within the healthcare provider, with supply chain costs expected to surpass labor costs in 2020.
- The COVID-19 pandemic has underscored the importance of a symbiotic relationship between clinical operations, population health, and supply chain, while highlighting the importance of vendor diversification and supply chain transparency.
- While provider organizations are investing in tools that help to inform the decision-making process in advance of procurement, there are still areas for improvement. For example, to track margins by surgical procedure, 46% of hospitals are currently using in-house solutions based on manual or spreadsheet processes, which are often inefficient and do not enable complex analysis.⁽¹⁾
- Supply chain costs extend beyond goods to procured services—due to health system consolidation, lack of historical benchmarking data, and lack of internal oversight, excess and duplicative purchased services spending is estimated to exceed \$39B.⁽²⁾
- There are a varied group of both internal and external stakeholders that interact with the hospital supply chain and clinical operations that have a direct impact on improving care quality and controlling costs.
- Public technology companies addressing hospital supply chain challenges have bounced back even faster than the broader market, while M&A activity has continued at a rapid pace.

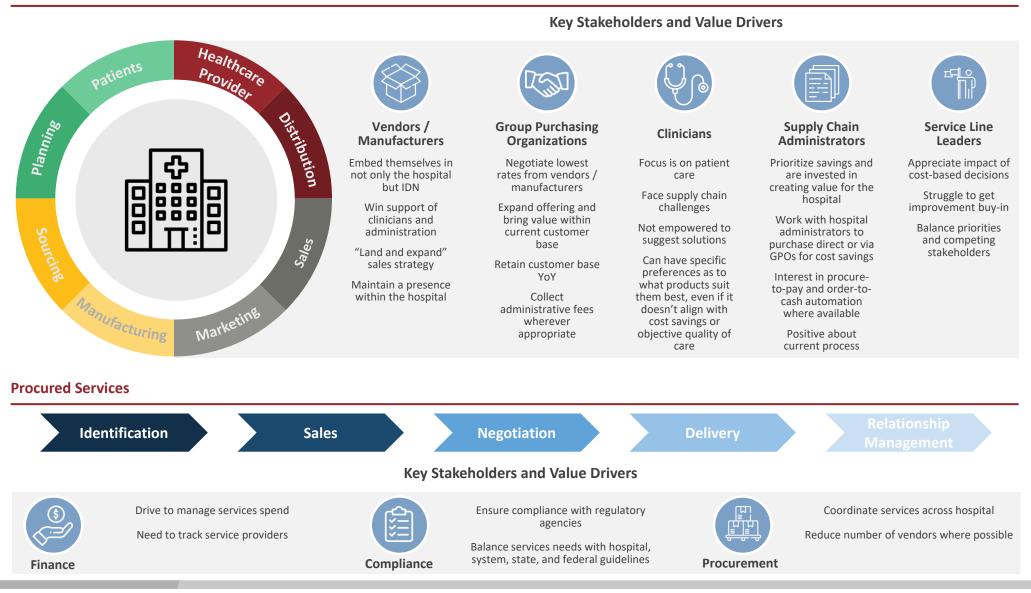


(2) Johns Hopkins Health System; Medpricer

Complexity Creating Opportunities for Software Providers

The complexity of the hospital supply chain and its numerous constituents create opportunities to drive efficiencies with software applications.

Consumables, Capital Equipment, and Drugs & Devices



Fragmentation and Point Solutions Leave Space for Broader Software

Diverse needs across stakeholders have yielded a fragmented landscape of point solutions with several broad-based vendors emerging through M&A and organic solution development.

Market Landscape

DIVERSIFIED PLATFORMS EVALUATION AND DECISION-MAKING CAPITAL **MEDICAL / SURGICAL DRUGS & DEVICES PROCURED SERVICES** CUrvo Cardinal Health (+) GREENLIGHT 🔽 Valify MEDICAL MEDICAL GREENLIGHT GHX PROCUREMENT CAPITAL **MEDICAL / SURGICAL DRUGS & DEVICES PROCURED SERVICES** MerisourceBergen BlueYonder CUrvo HENRY SCHEIN® **Medi**Solution €ttainia J∧GG∧ZR+ infor J^GG^_R• HENRY SCHEIN® 🔩 HYBRENT §MediSolution Optime **M**^CKESSON **Manhattan** PARTS SOURCE **M**SKESSON VALIFY PARTS SOURCE swisslog ORACLE Scrubin ASSET AND INVENTORY MANAGEMENT PREMIER CAPITAL **MEDICAL / SURGICAL DRUGS & DEVICES** 340B COMPLIANCE **BD** BlueBin HYBRENT IMPINJ CENTRAK IMPINI HENRY SCHEIN® SAD **S**LUCAS iump 💠 BlueYonder 🛛 🕄 ∧nuvem IMPINJ **R**Strategies PAR PARTS SOURCE' sentry data systems Omnicell' 🔿 TRIMEDX 🛛 🕅 JEBRA Verity **Symplr** (Temptime PARTSSOURCE 🖕 vaxcare **H** tecsys **ettainia** HYBRENT MedProcure inmar R Transparent PARTS SOURCE DIVERSIFIED SPEND MEND SWISSIOG PARTS SOURCE vizient **PLATFORMS** PROCUREMENT (Temptime SYFT SPEND MEND SPEND MEND

Sub-Sector Definitions

- **Evaluation and Decision-Making:** Software tools and subscription research solutions that enable providers to evaluate the cost, efficacy, and value of procured goods and services
- **Procurement:** Software and solutions that enable providers to evaluate, negotiate with, and contract with vendors

Asset and Inventory Management: Software, hardware, and services that enable organizations to track and maintain capital assets and manage appropriate inventory levels of consumable goods

Vendor Management and Finance: Solutions to settle transactions and ensure vendor compliance with contractual agreements



Four Key Trends are Driving Software Adoption

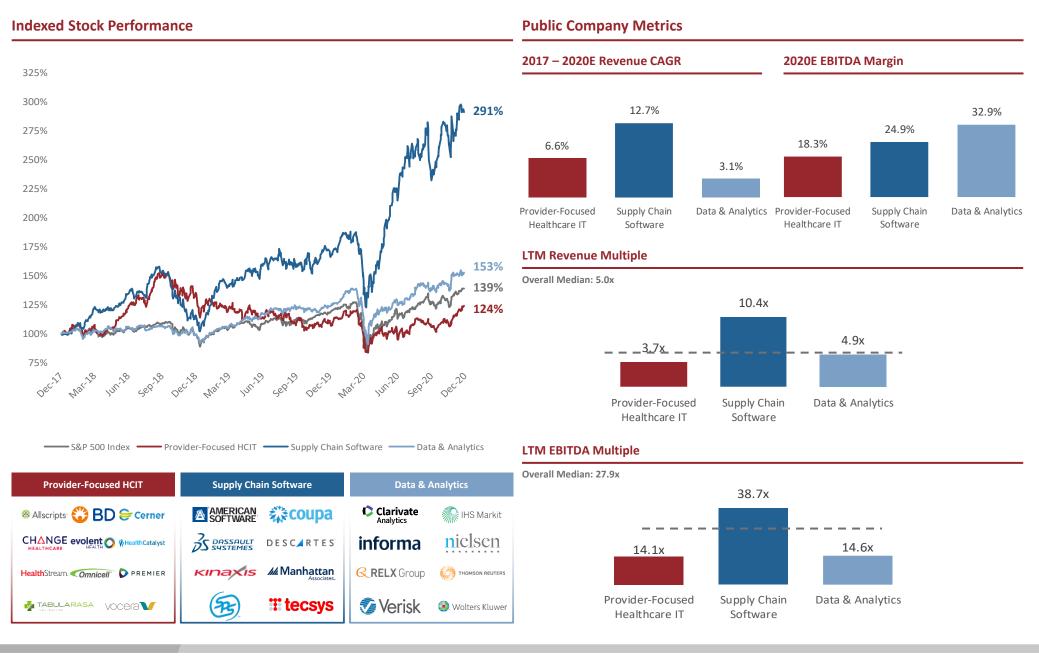
	VBC Underpinning Need for Evidence- Based Procurement	 High-impact areas like perioperative and pharmacy are the most influenced by value analysis and can contribute to quick wins within the space. As large provider organizations continue to take on financial risk via value-based and other alternative payment models that result in less revenue scalability, they are increasingly evaluating cost structure in order to protect operating margin. Purchasing and contracting decisions for capital goods, consumables, drugs and devices, and outsourced services factor in third-party evidence concerning clinical efficacy and total cost of ownership in order to gain a greater degree of transparency into cost structure.
	Scrutiny of Spend on Procured Third- Party Services	 Purchased, outsourced services is the second-largest spend category for hospitals, following labor, constituting 20%+ of total cost structure.⁽¹⁾ Purchased services can range from facility support to financial/RCM to clinical services, such as dialysis and imaging. Due to health system consolidation, lack of historical price benchmarking information, and lack of internal oversight, excess and duplicative purchased services spending is estimated to exceed \$39B.⁽²⁾
	Automated, Intelligent Inventory and Asset Management	 Improper management of med-surg, physician preference items, and drugs and devices can significantly impact both clinical care and financial results. Disparate GPO contracts, often arising from hospital consolidation, can result in highly variable pricing and non-standardized inventory. Supply shortages revealed by the COVID-19 crisis have underscored the importance of vendor diversification and supply chain transparency, along with the need to more closely work with clinical operations and population health, which in turn gives rise to additional complexity and vendor management challenges.
B	Traceability and Transparency	 Adoption of mandatory GS1 standards and Unique Device Identification requirements across US and European healthcare has put a spotlight on supply chain transparency while also spurring creation and adoption of innovative barcoding and RFID solutions. Pharma has traditionally been at the forefront of traceability standards throughout its supply chain and, as the pharmacy becomes an increasingly important profit center for the hospital, provider organizations are adopting comparable technologies and solutions. Technologies developed to drive transparency for pharma and devices are becoming widely adopted to optimize inventory of medsurg supplies and management of capital assets.

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The merging of clinical and administrative challenges for health systems creates unique procurement pressures and underpins a need for technology that can deliver new insights across the clinical, financial, and compliance realms.

- (1) American Hospital Association
- (2) Johns Hopkins Health System; Medpricer

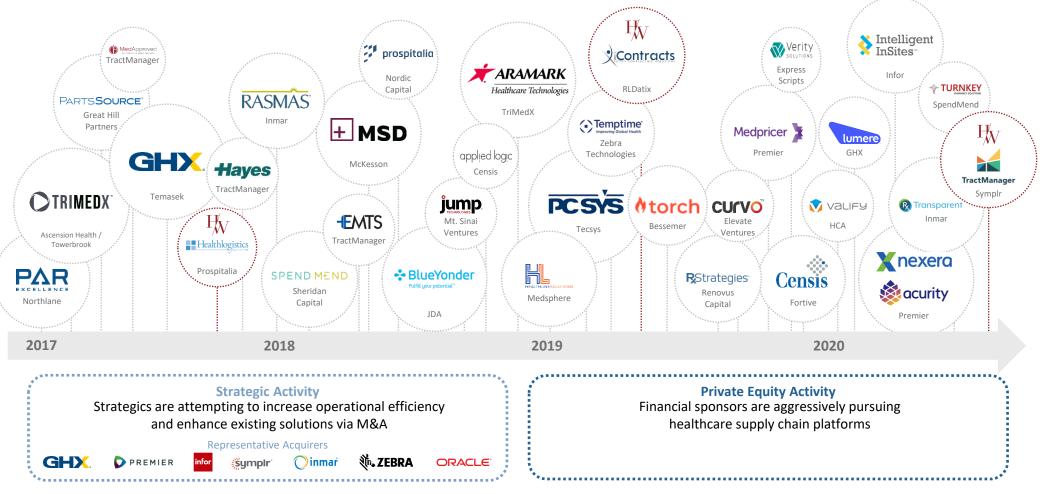
Resilient Public Comparables Have Experienced Outsized Bouncebacks



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Investment Activity Across the Broader Sector Remains Robust

- Investment interest in supply chain management solutions for hospitals has been consistent for several years and largely focused on strategic consolidators adding on point solutions targeting specific spend segments.
- Recent target companies have generally focused on solving areas of "hidden" cost leakage, such as outsourced services and the contractual relationships that govern them, poor inventory management, and bridging the up-front price for capital and med-surg with clinical efficacy and total cost of ownership.



Activity is expected to continue throughout 2021 as both strategic and financial buyers look to add specific point solutions and solve further areas of hidden cost leakage.

Appendix: HW Introduction

Leading Technology Advisor

Dedicated industry groups with deep relationships and market intelligence.



Healthcare & Life

Sciences







Aerospace, Defense, & Government Services

Building Product & Materials

Industrials

Business Services

Specialty

Distribution

Consumer

Technology

Energy, Power, & Infrastructure



Transportation & Logistics

Global Capabilities and Coverage

Harris Williams' Technology team comprises 37 experienced professionals across **Boston**, **London**, and **San Francisco**.



Technology Group Taxonomy

Horizontal Focus Sectors

- > Application Software
- > Cloud Managed Services and Hosting
- > Compliance Solutions
- > CRM and Marketing Automation
- > Human Capital Management
- > Infrastructure and Security Software
- IT and Tech-Enabled Services
- Marketing, Research, and Insights Services

Vertical Focus Sectors

- > Architecture, Engineering, and Construction
- > Education and Training
- > Energy Technology
- > Facilities and Real Estate
- > Financial Technology and Payments
- > Government Technology

→ Healthcare IT

- > Industrial and Supply Chain Technology
- > Internet and e-Commerce
- > Retail Technology

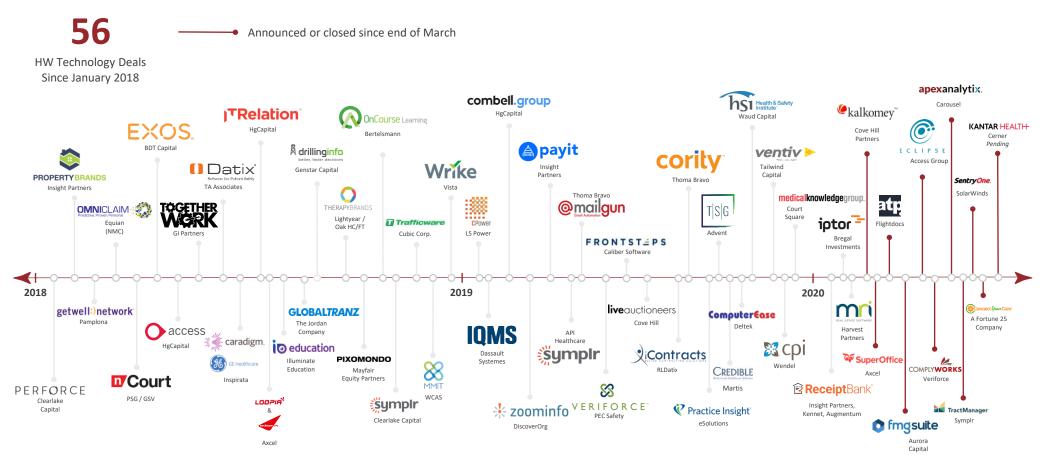
Key Themes

✓ SaaS / Cloud

✓ A.I. / Machine Learning

✓ Digital Transformation ✓ Data & Analytics

Unparalleled Deal Momentum Across Technology Verticals



Unmatched Deal Activity Gives HW Unique Insight into the Key Value Drivers in Today's Market



Software Advisor of Choice in Healthcare and Supply Chain Management

Our Experience



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