

Guidehouse Health Supply Chain Offerings



Introduction

Guidehouse has a rich history of delivering supply chain solutions to hospitals, health systems,¹ and public sector health providers. Our clients include large private health systems, community hospitals, academic medical centers, and group purchasing organizations (GPOs). We also tailor our commercial supply chain solutions for public sector health providers like the U.S. Military Health System (MHS) and U.S. Department of Veterans Affairs, and work with Ministries of Health to strengthen medicine supply chain performance in Africa.

Our team uses global, industry-standard commercial measurement methods and process improvement frameworks, such as the Supply Chain Operations Reference (SCOR®) model and performance-based metrics, to guide our analysis of and recommendations for improving end-to-end supply chain operations. Our research has consistently shown that **most hospitals can reduce their annual supply chain expenses by 17%, for an average savings of nearly \$12 million per hospital² — without affecting quality.**

Our supply chain expertise spans the entire end-to-end health supply chain. We have extensive experience working with suppliers, distributors, and all types of demanders, whether commercial or public sector.



¹ Qualifications include work performed by Navigant, acquired by Guidehouse in 2019.

² Guidehouse, "Annual Supply Chain Savings Opportunity Reaches \$25.7 Billion for U.S. Hospitals, Navigant Analysis Finds," November 13, 2019, <https://guidehouse.com/news/corporate-news/2019/supply-chain-analysis-2019>.

Strategic Sourcing and Procurement

A hallmark of our supply chain expertise includes advanced **strategic sourcing and procurement** support, having delivered sourcing and procurement solutions to the largest and most complex U.S. healthcare providers. Our deep knowledge of suppliers, distributors, wholesalers, and GPOs provides our consultants **in-depth, firsthand knowledge of the very entities from which our clients procure** clinical supplies, devices, and pharmaceuticals.

Large Health System in the Midwest — The health system, with five hospitals, two stand-alone emergency department facilities, and 130-plus sites of care, partnered with Guidehouse to close an \$11.5 million budget shortfall in less than four months. Our team identified opportunities for labor, supply chain, and revenue cycle savings that could enable the health system to meet its fiscal year 2016 budget. The assessment uncovered more than \$180 million in margin improvement opportunities — with more than 400 areas of potential savings identified in the supply chain alone.

Asked to close an \$11.5M budget shortfall, Guidehouse identified more than \$180M in margin improvement opportunities, including 400 areas of supply chain savings.

Large Northeastern Health System — Our consultants developed and implemented a new value analysis process and consistent decision-making structure to evaluate the quality and cost-effectiveness of new and current products, purchased services, and capital introduced into the supply chain. This new process provided financial value through price negotiation, supplier consolidation, and reduction of waste and rework across the health system's eight hospital campuses and numerous health centers, physician practices, and rehabilitation locations.

Community Health System — Guidehouse was asked to reduce losses from supply chain operations by \$10 million annually. Our team identified opportunities to better align suppliers, pricing, and utilization across the organization and foster mutually beneficial business partnerships between the health system and channel partners, ultimately helping the client achieve \$27.4 million in savings.

Asked to deliver \$10M in supply chain cost savings, we delivered \$27.4M.

In addition to helping health systems reduce costs and achieve hundreds of millions in cumulative savings, our consultants specialize in helping providers decrease unwarranted clinical supply variation and better manage physician preference items.

Large Northeastern Health System — Restructured the network value analysis program, spanning clinical and business departments, to support a transformational margin improvement goal. Based on internal variation and external benchmarks, we identified opportunities to reduce costs of clinical supplies, purchased services, and capital. Partnered with operational and clinical leaders to champion behavioral and cultural change, leading to significant reduction in supply costs and unwarranted clinical variation.

Large Health System in the Midwest — Restructured physician preference supplier contracts, including orthopedics, spine, and trauma care while renegotiating line-item pricing and business terms based on our procurement benchmark data.

Guidehouse draws on consultants with prior industry and 3PL experience in crafting health supply chain demand planning and forecasting solutions across Africa.

Supply Chain Planning

Our teams routinely help clients with supply chain planning challenges, including:

South African Public Health System — Designed and implemented a commercially inspired demand planning and forecasting approach for a large public health supply chain serving 46 million people in sub-Saharan Africa. Created processes and tailored a commercial off-the-shelf forecasting application to deliver the first-ever facility-level forecast by item for the country's 3,900-plus facilities that informs budgeting, finance, and downstream supply chain activities.

National Public Health System in Sub-Saharan Africa — Designed and implemented a demand-forecasting process that informs more than \$300 million in annual donor-funded health commodities for a large public health system serving approximately 50 million people.

12-Hospital System in Western U.S. — Transitioned the organization to a low unit of measure distribution model, while rightsizing par levels and expanding supply depot services and inventory management point-of-use systems to more than 100 inpatient and outpatient areas. Reduced operational costs by \$1 million annually. Directed process improvement initiatives using Lean Six Sigma tools, resulting in a 50% reduction in stock shortages, 40% reduction in care manager orders, and an 8% to 12% increase in point-of-use system compliance.

Delivery and Distribution

Clients struggling with delivery and distribution challenges can leverage Guidehouse's 20-plus years of delivering transportation and logistics optimization services. We leverage leading commercial methodologies, such as the SCOR® model, and performance-based metrics to identify and develop recommendations for reducing delivery and distribution costs while maintaining or improving performance. We have also repeatedly demonstrated our ability to tailor these commercial solutions for large, complex public sector supply chains.

National Public Health Laboratory Testing Network — Optimized the HIV diagnostic network and sample referral system for a sub-Saharan African nation's public health system, improving service delivery and optimizing equipment placement across the country. The system handles more than 1.3 million tests per year submitted from more than 9,000 testing facilities.

Regional Public Sector Health System Serving 3.6 Million People — Partnered with the provincial health department to assess and offer recommendations for optimizing distribution for the system, composed of 21 hospitals, 41 community health centers, and more than 300 clinics. The team identified numerous solutions, including network redesign, new routing, scheduling, optimization of outbound conveyance utilization, and implementation of supplier direct delivery to reduce warehouse handling and expenditures.

14-hospital IDN in Southeastern U.S. (Supply and Distribution Planning) — Designed, developed, and operationalized a centralized logistics network and distribution center (DC), including prerequisites and pro formas to determine the financial, operational, and human capital investment required to implement. Partnered with industry experts on DC design and setup, balanced labor workload, and technology enhancements, and implemented new supply and distribution planning processes to produce greater efficiencies in the DC, which became a revenue producing center.

U.S. Department of Defense Transportation Command — Though not specifically health-related, Guidehouse has the single most significant public sector distribution optimization project in the U.S., having achieved \$1.6 billion in transportation savings for the U.S. Department of Defense's (DoD) worldwide transportation and logistics provider since 2006. Our 50-plus transformational initiatives span routing, scheduling, optimizing organic and third-party logistics (3PL) services, network redesign, transportation sourcing, and other commercially inspired solutions tailored for government.

Identified and implemented transportation improvement initiatives resulting in \$1.6B in savings for the U.S. military's supply chain distribution provider.

Supply Chain Visibility

Whether leveraging our advanced analytics team or client-focused data visualization specialists, Guidehouse provides a diverse range of supply chain **data analytics, monitoring, and reporting** services. These offerings are designed to transform end-to-end supply chain visibility and provide executives and managers with unprecedented insight into supply chain performance, alert them to potential disruptions, and inform decision-making.

South African National Department of Health — Developed 45 Tableau®-based dashboards with hundreds of views for a national surveillance center, depicting medicine availability and reporting compliance at national, provincial, district, and facility levels (including 3,733 facilities) across South Africa for a United States Agency for International Development-funded project designed to strengthen medicine supply chain performance and improve health outcomes.

Large Sub-Saharan African Public Health System Serving 50 Million Citizens — Developed a series of dashboards integrated with an enterprise electronic logistics management information system (eLMIS) that communicates stock levels, stock shortages, and inventory levels, and alerts users to supply chain shortfalls and disruptions.

U.S. DoD Joint Strike Fighter Program — Guidehouse was asked by the program office to aggregate supply chain data and develop visualizations for the \$1 trillion-dollar weapons system. Our team identified 6,000 suppliers and mapped 150,000-plus parts to specific locations on the aircraft and then linked them to suppliers to better communicate supply chain disruptions and their impact on production and sustainability.

Emergency Preparedness and COVID-19-Specific Supply Chain Support

Guidehouse has extensive experience in helping healthcare systems and public health ministries prepare for and respond to national emergencies, including pandemics.

Tanzanian Ministry of Health — Developed a countrywide emergency supply chain operations framework for the government of Tanzania that guides its public health system's preparation for and response to pandemic outbreaks such as Ebola, Aflatoxicosis, Cholera, and now, COVID-19. Our framework guides Tanzanian efforts to identify COVID-19 commodities, forecast their demand, prepare for and receive incoming shipments, and execute delivery operations to COVID-19 treatment facilities.

South African Public Health System — Rapidly prototyped and developed a series of dashboards to communicate the status of COVID-19 infections and deaths in South Africa, along with the availability of COVID-19-specific medications per the World Health Organization and South African Essential Drugs Program guidelines. The dashboards depict known shortages and identify supplier capacity problems as national and provincial departments of health work to limit the spread and mitigate the consequences of COVID-19. Our team is also developing demand forecasts for medicines, personal protective equipment (PPE), and other health commodities related to the COVID-19 response.

Entrusted by the DoD to develop data visualizations for the Joint Strike Fighter supply chain—a \$1 trillion program.

COVID-19 Offerings

Surge Modeling — Guidehouse's deep experience in health analytics and predictive modeling can be leveraged to help health systems and their supply chains deal with the unique demands of sustaining patient care in the current COVID-19 environment. Our modeling factors retrospective infection rates data and other inputs to forecast future needs for:

- Staff (providers, ancillary, support staff)
- PPE
- Pharmacy supplies
- Laboratory testing needs (kits, equipment, reporting)
- Radiology (fixed and mobile equipment and procedures)
- Physical space and equipment (beds, ventilators, isolation measures)
- Coordination with other local, state, or federal resources

Navigating the FEMA Recovery Fee Process — With 15 years supporting Federal Emergency Management Agency (FEMA) disaster response, recovery, and claim management, Guidehouse is uniquely positioned to help commercial providers submit requests for FEMA recovery fees, a complex activity for which many commercial health systems have little institutional knowledge. We are currently providing this service to multiple U.S. private-sector systems.

Health Supply Chain Information Systems

Guidehouse has extensive experience providing design, implementation, and change management services for a diverse range of supply chain information systems.

National Public Health System in Sub-Saharan Africa Serving ~50 Million Persons — In Tanzania, we provide full system development lifecycle support to the eLMIS used to perform stock capture, track inventories, submit orders, and receive health commodities at more than 6,000 facilities.

With many former provider supply chain executives, pharmacists, and clinicians, Guidehouse consultants have extensive experience operating many of the inventory management, stock capture, and Enterprise Resource Planning systems used by our clients.

South African National Department of Health — Delivered a health supply chain enterprise information systems strategy for the National Department of Health. Developed multiple application programming interfaces for web-based inventory management and MMS-based stock capture systems to facilitate reporting medicine inventory information to the National Surveillance Center.

Guidehouse includes consultants with previous experience as pharmacists, MDs, RNs, public health specialists, and health system executives who are uniquely positioned to appreciate the complexities and challenges of optimizing medicine selection and rational medicine use.

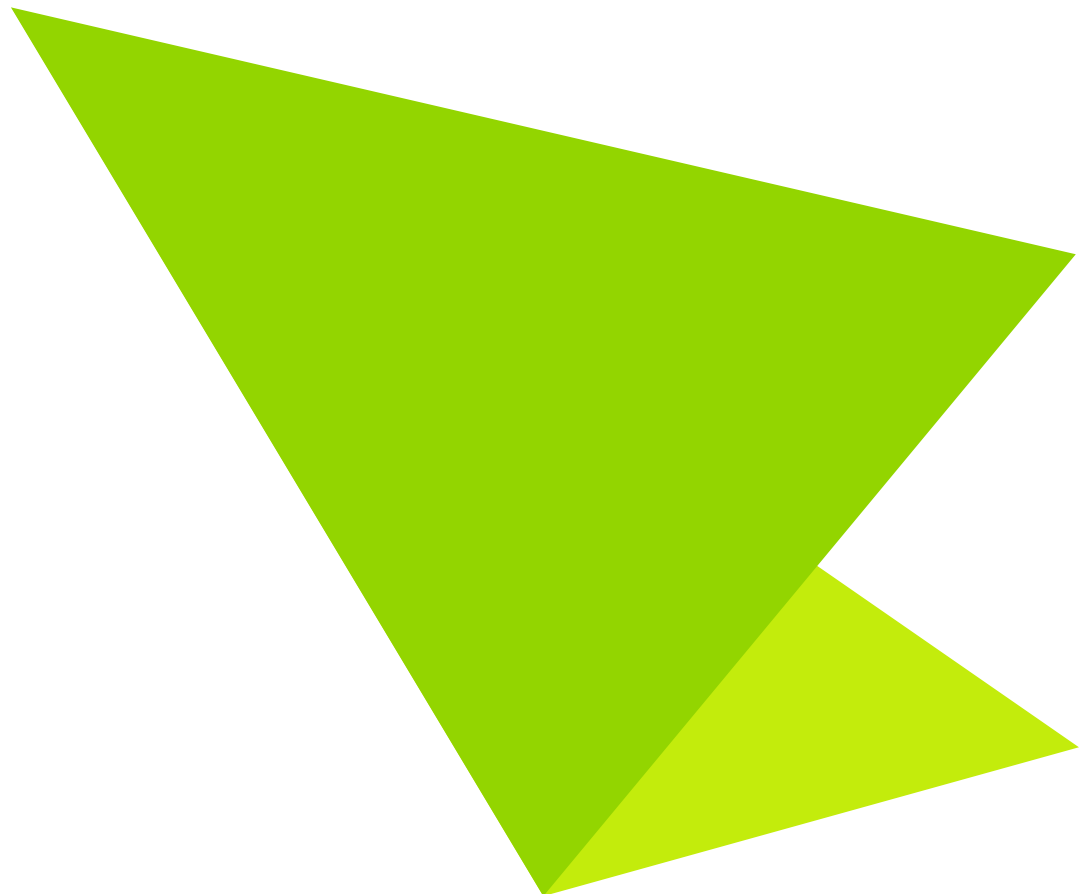
Medicine Selection and Rational Medicine Use

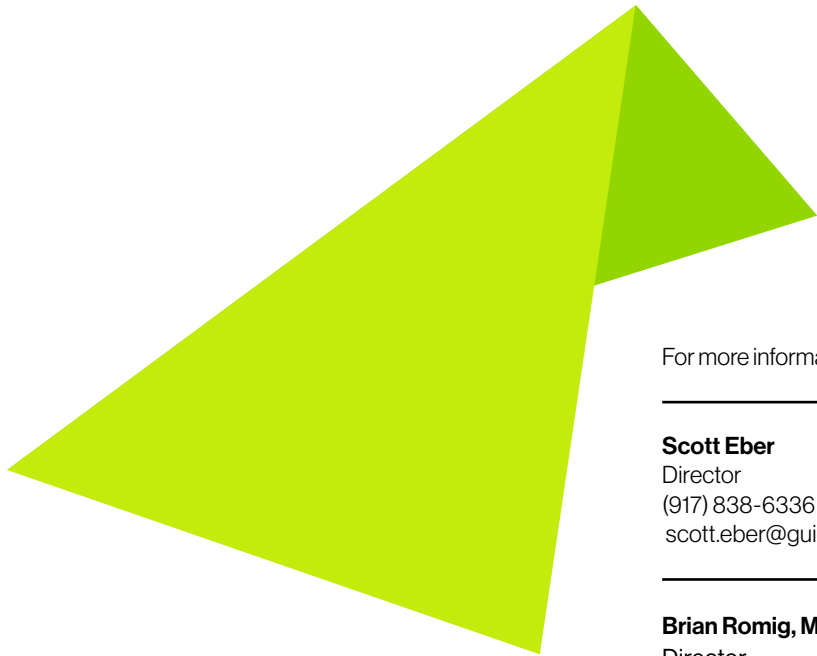
A sometimes overlooked but critical component of supply chain success is assessing whether a client has the appropriate items in their supply chain to begin with. Guidehouse personnel include many former pharmacists, physicians, and health system executives able to help providers navigate medicine selection decisions and design solutions to monitor compliance with formulary guidelines.

South African Affordable Medicines Directorate — Guidehouse personnel are supporting the transition of first-line antiretrovirals to Dolutegravir in South Africa, which has the world's largest HIV/AIDS burden, with more than 7.9 million people, or 14% of its population, HIV-positive. In addition to planning, sourcing, and distribution preparation, our team is involved in supporting decision-makers as they transition an entire country to a new regimen.

United States Military Health System — As part of DoD's continued transformation from service-specific healthcare delivery to a common, unified healthcare system, Guidehouse is partnered with the MHS to redesign pharmacy operations and governance models to support clinician-driven medicine selection.

Commercial Multi-Hospital Systems — Many of our commercial engagements feature implementation of a physician governance model that improves coordination of medicine selection and formulary development decisions across facilities in multi-hospital systems. The governance model provides new structures, communication, provider engagement, accountability, and change leadership to help systems achieve medication utilization targets related to IV => PO acetaminophen and levothyroxine, liposomal bupivacaine formulary restrictions, daptomycin restrictions, and site-of-care guidance for high cost drugs such as IVIG, IV albumin, and alvimopan guidelines among others.





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