



GETTING PRODUCTS TO PEOPLE

How Private Sector Solutions Can
Strengthen Supply Chains for Public Health



John Snow, Inc.

“Much of the [world’s] burden of disease can be prevented or cured with known, affordable technologies. The problem is getting drugs, vaccines, information, and other forms of prevention, care or treatment—on time, reliably, in sufficient quantity and at reasonable cost—to those who need them.”

—World Health Organization

With more than 30 years of experience strengthening supply chains for public health, John Snow, Inc. (JSI) offers innovative approaches to solving supply chain management problems in the public health sector. Using a range of solutions tailored to local needs, from procurement to the last mile, JSI delivers sustainable results in challenging environments.

Working in more than 100 countries—including those that have transitioned from low- to middle-incomes—JSI understands the market forces that drive access to health products over time. Using strategies from all market sectors—public, nongovernmental organizations, and commercial—JSI brings life-saving products to people, strengthens health services, and contributes to achieving universal health coverage.

Cover Photo: Arturo Sanabria



Arturo Sanabria

“Universal health coverage is defined as ensuring that all people have access to needed promotive, preventive, curative, and rehabilitative health services, of sufficient quality to be effective, while also ensuring that people do not suffer financial hardship when paying for these services.”

—World Health Organization



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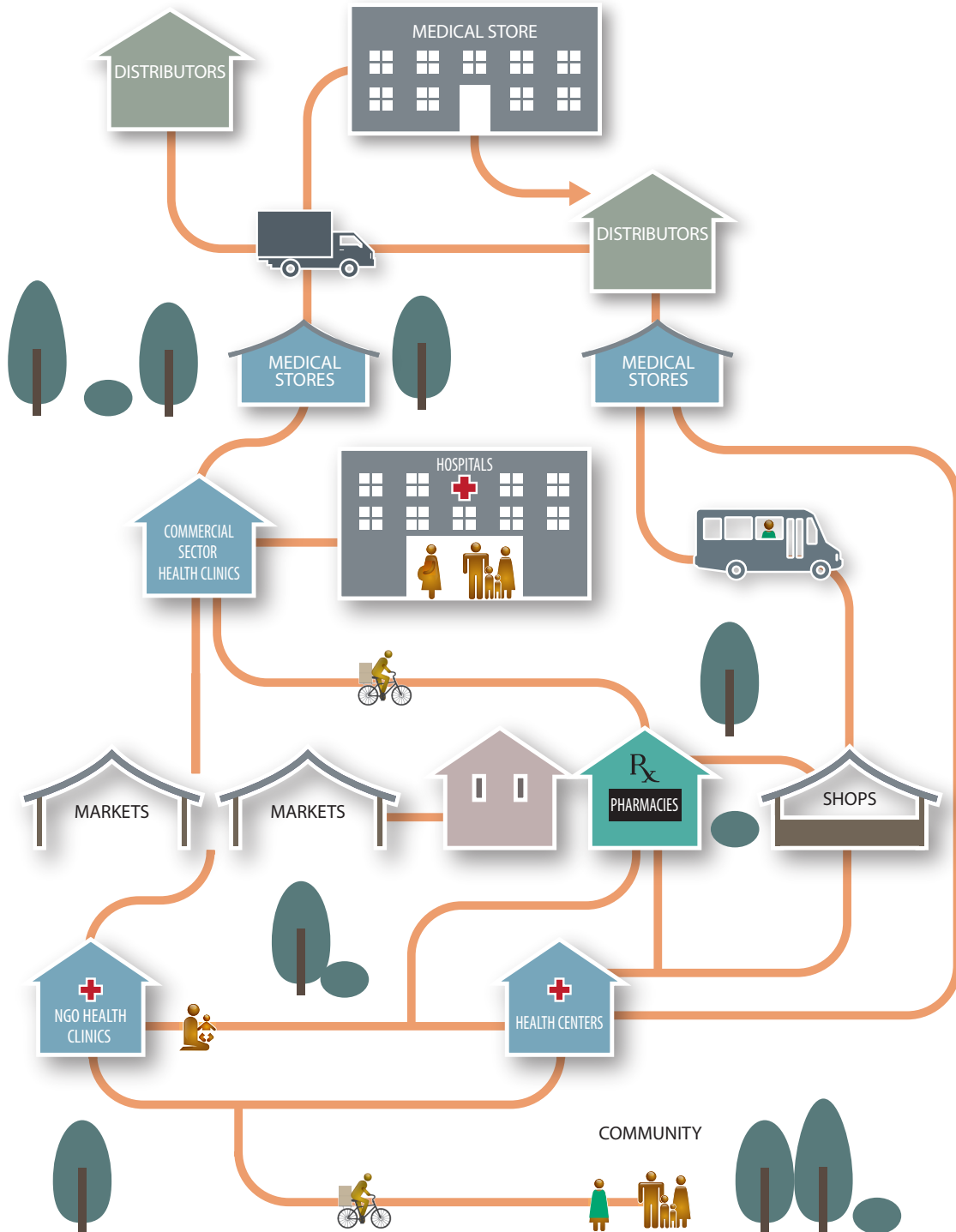
Strong Supply Chains Help Achieve Universal Health Coverage

Universal health coverage is a major global commitment; an increasing number of countries are working to provide all the health-related goods and services needed by their citizens. Combined, the various sectors

providing services together make up the total healthcare marketplace. These services, delivered by multiple public and private providers, depend on effective management and delivery of health products.

A COUNTRY'S HEALTHCARE MARKETPLACE IS COMPLEX

This marketplace consists of public, nongovernmental, and commercial organizations supported by supply chains that deliver health products to people.



Source: John Snow, Inc.



All Countries Face Challenges When Operating Supply Chains for Public Health

A wide range of players, processes, and information are needed to get health products to people throughout the complex healthcare marketplace. The challenge increases as countries face larger investments needed for health programs, expanding portfolios and volumes of products, and more service coverage for new populations.

Even high-income countries—the United States, Canada, Australia, and many countries in Europe—have difficulties ensur-

ing that health products are available in the current global manufacturing and product sourcing environment. The American Society of Health-System Pharmacists reports that drug shortages in the United States have nearly tripled since 2006.

To minimize shortages, many players must work together optimally to ensure effective, reliable, and agile supply chains that help to provide equitable access to health services for all people.

{ The public health sector must engage the private sector
in resourceful ways to strengthen supply chains. }

Tailored Private Sector Engagement Must Be Part of the Public Health Supply Chain Solution

Supply chains for public health need to respond quickly in today's dynamic environment. Private sector supply chain managers have proven they can consistently deliver health goods and services in a wide range of settings, and they are part of the solution.

JSI has supported public health supply chain managers in very different developing country settings—Bangladesh, Chile, Indonesia, Malawi, Mozambique, Nigeria, Pakistan, Tanzania, and others—to design innovative and nuanced private sector practices that improve how they deliver health products to people. This wide variety of private sector engagements teaches us that—

- the private sector can play an important role in strengthening supply chains for health
- the role of the private sector in strengthening supply chains varies greatly; contracting to companies is just one way to engage the private sector
- creating synergies between the public and private requires a deliberate policy and a strategic framework, a mutual understanding of the benefits of private sector engagement, and the capability to tailor solutions to local environments.

Replacing a public sector component with identical private sector services will not make



sense in every situation. The best role for both the private and public sectors depends on many factors—geography, infrastructure, socioeconomic, politics, health system structure, insurance schemes, demographics, market dynamics, and availability of supply chain skills.

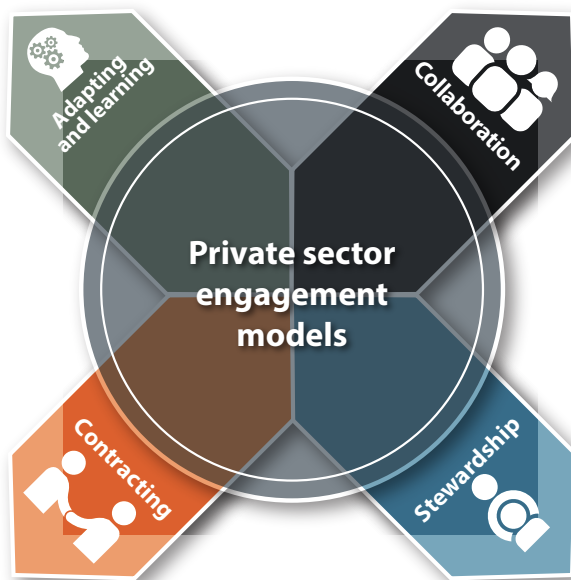
The context in some countries may prevent extensive private sector participation; in other places with a strong commitment to public-private collaboration in the health sector—and a robust private sector—the public sector can leverage private sector partners to strengthen its supply chain.

To best serve the population's needs and build a strong supply chain, public health supply chain managers must consider working with the commercial sector, but adapt it to their socioeconomic, political, health, and developmental context.

{ Public health managers have adapted private sector supply chain tools and practices, collaborated with private sector organizations, and contracted with private sector companies to perform logistics services. }

Different Private Sector Engagement Approaches Can Strengthen Health Product Delivery

Countries Use Four Basic Models to Engage the Private Sector



Using private sector expertise to strengthen supply chains is more than simply contracting to private companies. Other approaches include adapting private sector methods, tools, and processes for public health; collaborating with private companies and managers as partners and service providers; and encouraging stewardship across sectors.

A review of more than 30 low- and middle-income countries shows that four basic models of private sector engagement apply in supply chains for public health.



**Adapting
and learning**

Adapt from the private sector to apply innovative solutions in the public sector

Many—if not most—public-sector supply chains have adapted tools and practices developed by the private sector to improve performance; this includes solutions for sourcing, warehouse configuration, and information technology.



Contracting

Contract with the private sector to leverage comparative advantages across the healthcare marketplace

Many countries' health systems contract with commercial sector logistics providers for specific supply chain functions—such as warehousing and transportation, or management of particular commodities—partially or completely.



Collaboration

Collaborate with the private sector to share the responsibility of protecting the public good across sectors

Collaborating across the commercial, public, and NGO sectors requires significant relationship building. For example, many countries collaborate across national and international organizations to procure health products from manufacturers.



Stewardship

Provide stewardship to ensure equitable access to health products for all

In all settings, the public sector must work for the public good, ensuring that quality health services and products are available and accessible to everyone. This means being responsible for the performance of the coordinating partners, enforcing regulatory compliance, delivering value for money, and ensuring safety and efficacy of products.

OPTIMIZING SUPPLY CHAIN NETWORKS

The commercial sector uses modeling software to strengthen their network design. JSI worked with partners in seven countries to adapt commercial sector supply chain network analysis. The analysis supports network design decisions, including size and quantity of trucks needed for distribution; ideal warehouse locations, capacities, and distribution routes; best approaches for collecting and transporting expired commodities; and projecting long-term supply chain infrastructure needs. In Tanzania, a network analysis improved distribution and maximized the drivers' working days by reducing the number of routes needed to deliver products resulting in increasing shipment volume by 30 percent without increasing the number of routes or vehicles.¹

ASSESSING SUPPLY CHAIN COSTS

To assess supply chain costs, JSI and our partners adapted a supply chain costing methodology from commercial sector costing principles, and applied it in many countries—Guatemala, Nigeria, Rwanda, Zambia, and Zimbabwe. In the same way that for-profit companies use industry standards to benchmark their costs and efficiency, JSI works with partners to set service fees, and to plan, analyze, and improve performance.²

ADAPTING TOOLS AND PRACTICES FROM THE PRIVATE SECTOR

To improve performance, many supply chains have adapted tools and practices developed by the commercial sector. This includes using supply chain modeling software to improve design and routes, implementing digital logistics management information systems for better data visibility, and adopting industry-standard metrics to improve supply chain performance.



Adapting
and learning



¹ USAID | DELIVER PROJECT. 2009. Optimizing Supply Chains for Improved Performance. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 1.

² Rosen, James E. 2014. Economic Evaluation: Guide to Approaches for Public Health Supply Chains. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.

BUILDING SUSTAINABLE SUPPLY CHAIN MANAGEMENT PROGRAMS

By moving supply chain training to private institutions, including universities, countries can develop more sustainable supply chain management professionalization options. With support from JSI, the Government in Pakistan outsourced supply chain training to the Health Services Academy (HSA), a Pakistani parastatal organization. Students in the master's program—as well as logisticians, policy-makers, and public health managers from the public and private sectors—can take courses at the academy; this develops and sustains supply chain capacity within Pakistan's local institutions.



CONTRACTING WITH THE PRIVATE SECTOR

Many countries have contracted out supply chain functions—partially or completely—to commercial sector logistics providers. This includes contracting commercial sector storage and transport companies- or third-party logistics providers (3PLs), to manage key functions, and transferring inventory control to commercial companies through vendor-managed inventory models.³

CONTRACTING WITH LOCAL LOGISTICS PROVIDERS TO BUILD CAPACITY

Countries can contract commercial sector storage and transport companies, or third-party logistics providers (3PLs), to manage key logistics functions and thereby strengthen local private sector expertise. In Malawi, JSI helped establish contracting with a local transport and storage provider to deliver health products to facilities across the country. JSI worked as a fourth-party logistics provider (4PL) to oversee and manage the 3PLs' performance while simultaneously building their capabilities, thus also allowing the providers to build successful and responsive businesses.



³ USAID | DELIVER PROJECT. 2014. Logistics Outsourcing and Contract Management in Public Health Settings. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.

STRENGTHENING DIGITAL LOGISTICS MANAGEMENT INFORMATION SYSTEMS TO IMPROVE DATA VISIBILITY

Through a visibility and analytics network (VAN)—a supply chain control tower, which is a well-established strategy used in the private sector, countries can improve data visibility. VAN links people, processes, and technology to other stakeholders—e.g., purchasers, suppliers, and others—across the supply chain. In Pakistan and Ethiopia, JSI worked collaboratively with governments to develop digital, web-based information systems that collect, organize, and manage logistics data. To strengthen service delivery, it provides timely and accurate real-time data on commodity transactions—from central distribution to end users at health facilities. The data are used by managers to respond to changing demands in the total marketplace.

INTRODUCING NEW PRODUCTS TO IMPACT HEALTH OUTCOMES

The public sector can successfully collaborate with the private sector to develop and introduce new products that benefit populations. JSI and the Nepal Ministry of Health and Population helped initiate local manufacturing of chlorhexidine gel, an antiseptic for umbilical cord care. The collaboration between the public sector and a local pharmaceutical company succeeded, even though the manufacturer did not quickly gain profitability from the venture. This shows that private sector partner will work with the public sector if they are full partner, they understand the project impact—and their interests and shared values are understood.⁴

COLLABORATING WITH THE PRIVATE SECTOR

Effective collaboration between organizations that source, manufacture, supply, or demand health products can contribute to a thriving, affordable health-care marketplace. These examples show how collaboration has improved performance at every supply chain level—global to regional to local.



Collaboration



⁴ Tuladhar, S. Chlorhexidine in Nepal: A Public-Private Partnership Case Study. *Chlorhexidine Navi Care Program*. JSI Research & Training Institute, Inc. 2013

BUILDING FLEXIBLE PROCUREMENT MECHANISMS IMPROVES VALUE FOR MONEY

Good stewardship requires commitment to good governance—transparent procurement of goods and services, flexible sourcing, effective distribution options, clear specifications and service-level agreements, and timely payment. In 2010, the Chilean MOH worked with regions and ChileCompra, a government-wide electronic procurement (e-procurement) service. ChileCompra negotiates multi-year agreements with suppliers for products with high volume and predictable demand levels. Using an e-catalog, the government has lower prices and avoids the expense and delays of issuing individual tenders. While government agencies maintain oversight, the regions have autonomy and a range procurement options directly from suppliers, the central medical stores, or through the e-procurement platform.⁶

FACILITATING SUPPLY CHAIN STRATEGY ALIGNS ALL PARTNERS TO SUPPORT COMMON GOALS

Defining the roles and responsibilities of actors across non governmental and commercial organizations within a common plan ensures that efforts are coordinated and all populations can be reached. In Liberia, after civil war, international partners had set up parallel supply chains to deliver health products, which led to fragmentation among the many actors in both public and private sectors. JSI supported the government with a supply chain strategy to help all sectors agree on a coordinated plan to reach common supply chain management and performance improvement goals.⁷



Stewardship

PROVIDING STEWARDSHIP TO OVERSEE THE SUPPLY CHAIN FOR PUBLIC HEALTH

Many supply chain managers are stewards of their supply chains; they offer vision, guidance, and oversight. This role requires skills in leadership, regulation, market research, contract design, financial analysis, and alliance building.⁵ Supply chain managers leverage the many actors and available options to create a flexible integrated system.



⁵ Bornbusch A, Dickens T, Hart C, Wright C. "A stewardship approach to shaping the future of public health supply chain systems." *Glob Health Sci Pract*. 2014;2(4):403-409. <http://dx.doi.org/10.9745/GHSP-D-14-00123>.

⁶ Watson, Noel, and Joseph McCord. 2013. *Alternative Public Health Supply Chains: Reconsidering the Role of the Central Medical Store*. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.

⁷ John Snow Inc. January 2012. *Getting Products to People: The JSI Framework for Integrated Supply Chain Management in Public Health*. Arlington, Va.: John Snow Inc.

{ Achieving supply chain maturity does not imply that supply chains for public health will completely privatize. Rather, supply chain leaders must guide partners to achieve an ideal balance between the public, commercial, and NGO sectors; and adapt solutions that best deliver products to people. }

As Supply Chains Mature, Private Sector Engagement Improves






As supply chains mature, the public sector can learn to guide and integrate the sectors, actors, and processes to achieve a workable balance. JSI's Supply Chain Integration Framework shows how supply chains progress to maturity from ad hoc operations, to a more organized approach, to an integrated system.

All private sector engagement models—adapting, contracting, collaborating, and providing stewardship—can develop over time as supply chains mature. Country governments can work with all supply chain operators, including the private sector, to improve their capabilities and performance over time. Supply chain managers must determine which combination of approaches can help achieve their strategic objectives. Only the more mature supply chain organizations will be able to apply the most complex models.



JSI's Supply Chain Integration Framework for Private Sector Engagement⁸

	 Ad Hoc	 Organized	 Integrated
Adapting	Limited understanding of private sector approaches	Increased opportunities to collaborate and learn from the private sector, with limited adaptation of approaches	Private sector approaches adapted, employed, and monitored for optimal performance
Contracting	Limited (one-off) contracting with private sector is disconnected from strategic objectives	Better-defined functions and processes facilitate more streamlined contracting of logistics functions	Contracting extends to all supply chain functions, and is strategically used to maximize performance
Collaborating	Limited collaboration among cross-sector supply chain actors	Increased opportunities for collaboration among in-country and global actors from the private and public sectors	On-going collaboration mechanisms support aligned objectives and information sharing across sectors
Stewardship	Limited understanding of private sector or how to engage with it	Public sector analyzes total market and begins to put cross-sector coordination mechanisms and policies in place	Public sector sets priorities, establishes policies, ensures quality, monitors performance, and coordinates across sectors

Private Sector Engagement Improves

⁸ John Snow Inc. January 2012. Getting Products to People: The JSI Framework for Integrated Supply Chain Management in Public Health. Arlington, Va.: John Snow Inc.



A Deliberate Approach to Private Sector Engagement Can Help Fast-Track Supply Chain Maturity

Countries with a strategic, deliberate approach to engaging actors across public, NGO, and commercial sectors, while also using innovative commercial sector solutions to deliver health products, have achieved the most advanced stage of supply chain maturity.

Many countries with mature supply chain management skills define a vision for strengthening the supply chain and determining how the private sector can help. In this process, supply chain managers often:

- evaluate whether the environment is ready for increased private sector engagement
- determine if the private sector can support healthcare supply chain goals
- identify future risks and related opportunities when working with the commercial and NGO sectors
- develop a locally appropriate long-term plan for private sector engagement.

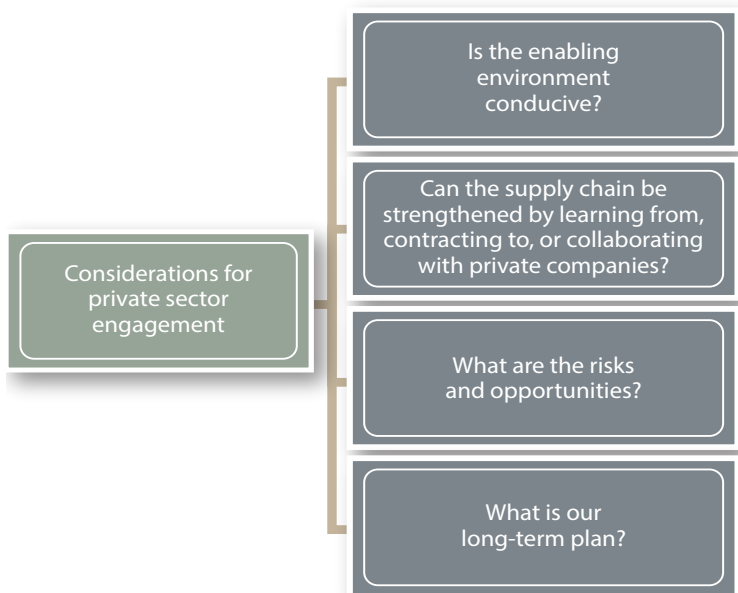


Strong Oversight Means Approaching Private Sector Engagement Strategically

This process requires a thorough understanding of how the country's healthcare supply chain operates, which requires planning for future supply chain strengthening activities. Moving through the ad hoc and organized stages to the integrated stage of the Supply Chain Integration Framework, countries identify how private sector engagement can encourage a more mature supply chain. Before designing a private sector engagement approach, supply chain managers must determine which core competencies to retain within the public sector and which competencies will be needed from the private sector.

As countries provide health products for an expanding number of health conditions and economic growth spurs the capacity of the private sector in many countries, public health supply chain managers will need to increasingly engage the private sector. In this environment of increasing demand, the

public sector's oversight role is vital to integrating all sectors and components into one high-performing, integrated supply chain network that supports equitable access to healthcare for all people. Equitable access is the public good; that is the public sector's responsibility. The private sector can contribute to this goal.





John Snow, Inc applies commercial sector principles to produce game-changing results for public health supply chains. Our solutions transform systems, improve performance, and enhance product availability.

JSI's strategic interventions build and support in-country counterparts' capacity to realize the full value of a successful supply chain. We work with them to—

- Design supply chains with robust information systems
- Optimize performance and cost efficiency
- Provide seamless transport and distribution solutions
- Procure quality-assured health supplies
- Build organizational and individual capacity
- Quantify needs for medicines and other health products
- Mobilize third-party logistics providers
- Improve data visibility and use of metrics
- Leverage mHealth and other IT solutions.

JSI: Promoting and Improving Health

John Snow, Inc. (JSI) is dedicated to improving the health of individuals and communities in the United States and around the world. Our goal is to work with clients to improve the quality of their operations. Founded in 1978 and headquartered in Boston, Massachusetts, JSI provides an extensive range of research and consulting services to public health programs in more than 100 countries.

JSI is a global leader in supply chain management for essential health products and has been instrumental in increasing policymakers' and program managers' recognition of the need to ensure availability of quality supplies for critical public health programs.

JSI has supported health system strengthening efforts in more than 100 countries and has provided supply chain management training to more than 100,000 people worldwide. With staff located in over 40 countries and a large professional team of experts, JSI provides a wide array of both long- and short-term technical assistance to improve health supply chains around the world.



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