Standvast
Healthcare Fulfillment

Reduce the end-to-end supply chain costs by 20+%, significantly improve hospital provider operating margins, and enhance patient care while making clinician services more accessible.

The healthcare supply chain in the US and Canada has seen limited change since the 1990s. It is a model built to replenish shelves with limited and/or difficult to use information technology. This creates increasingly complex, difficult to run systems as provider networks seek to gain efficiencies through acquisition and growth. Partly due to this, healthcare in the US costs twice as much on a %GDP basis than other developed countries with a government self-reported 8% error rate the third largest mortality cause. Accessibility of care continues to decrease as supply chains cannot efficiently serve care closer to the patient or in homes. The Covid-19 crisis further highlighted the need for change and margin pressures make it imperative to address the opportunities.

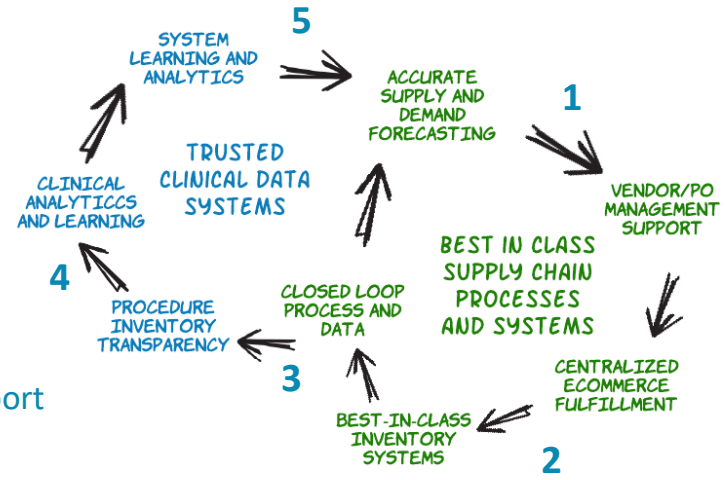
The **root causes for the current state of the healthcare supply chain:**

- **Reactive – react today for tomorrow at every step of the supply chain** – a clinician picks items from a paper pick sheet for a procedure tomorrow/today with limited idea what may/may not be there, the supply clerk (clinician) reviews shelves to order items today that are needed based on visual cues, the supply chain uses these requests to aggregate orders using non-intuitive difficult to use systems, and distributors or manufacturers fill orders for tomorrow with the best seeking historical trends to maintain stock. There is limited, if any, use or sharing of existing data to plan, forecast, or optimize the process.
- **Everyone is an island or silo – From the Clinician to the Manufacturer** – each clinician, room, hospital, department, distributor, and manufacturer representative are islands or silos without shared information, coordination, support, or optimization. There is no shared inventory or responsibility with each entity on their own to ensure there are enough supplies and resources for each patient procedure.
- **No Trusted Data Source - Limited idea of what you have, need, or plan to action** – there is limited data throughout the supply chain as it relates to inventory or planning information. There is also no definitive answer to what is sent into a procedure or what is used/wasted/returned. Any existing data is caught in siloed enterprise systems that require specific knowledge and specialized resources to use. Without data or a plan to use the data, then how can you know what you should do, have an ability to hold anyone accountable, prepare for future events, or react knowingly and confidently in times of stress?
- **Misaligned Partners – Middlemen with opaque agreements and incorrect incentives** – GPOs, distributors, and manufacturer representatives are actively engaged with the decision-making process on efficacy/value of care but are lacking data and have misaligned incentives to patient value. The supply chain exists in an opaque system designed to keep the clinicians and providers in the dark.
- **Firefighting as the most rewarded skill –** supply chain teams are rewarded for a fast response to a problem irrespective of whether the problem was avoidable and often repeated. Comfort is found in days filled with responses to errors versus solving the problem for good and reducing the errors.
- **Built for a model based in the 1990s/1890s – replenish shelves with outdated technology** – the core questions being asked of the supply chain is unchanged for decades - replenishing shelves to ensure instock levels with limited information or technology and utilizing the same middlemen organizations. The correct question is how to provide the right supplies at the right moment for a specific clinician/patient need in a technology enabled solution using best in class industry practices/systems.

These opportunities exist at nearly every provider network we have engaged with and Amazon faced these issues in 2000/2001. Amazon and other organizations solved similar problems enabling an evolution. Given the longstanding problems within the healthcare supply chain and to respond quickly to the Covid-19 crisis, providers will not create the change required by hoping existing models will get incrementally better. The leaders within healthcare must seek a supply chain transformation to solve the urgent opportunity at hand now.

To serve this need Standvast created solutions to effectively deliver and integrate a regional fulfillment with the critical services needed for provider clinicians to better serve their patients. The Standvast solution starts with clinician/patient needs and simplifies the healthcare supply chain for the clinicians and hospital systems. Through proprietary technology, new processes, and lean enabled workflows we transform the flow of supplies and connect with existing hospital systems for transparent, new sources of information that interconnect the end to end healthcare supply chain. **Standvast solves the opportunities with a solution that creates cycles of success:**

1. Better Ordering
2. Fulfillment not Distribution
3. Trusted Data
4. Optimal Learnings/Analytics
5. Improved Vendor Leverage/Support



Standvast's Integrated Product Offering creates reinforcing cycles of success leading to transformative results

The Standvast team executed this model in other industries and in healthcare. The product comprises:

- *A world-class mass-customized e-commerce fulfillment capability as the critical central service point to a new lean technology-enabled healthcare supply chain.*
- *Best in class supply chain technology with simple integrations to existing systems for a closed loop real-time system to become the trusted data source providing new transparency and information.*
- *Machine learning, advanced algorithms, and recommendation engines empower clinicians and hospital leaders to drive change to costs, quality of care, and patient satisfaction.*

Standvast has implemented our mass-customized, e-commerce fulfillment supply chain delivering the highest levels of service while creating a closed loop data environment to power machine learning systems.

The benefits of the Standvast solution:

- *Reduces 70+% of inventory in the provider supply chain*
- *Greatly simplifies processes to return clinical resources back to patient care and reduce sources of stress*
- *Less inventory across fewer locations significantly eliminates waste and large logistics costs (hidden and direct)*
- *Reduces financial risk, assets, and overhead*
- *Removes misaligned incentives and costs – direct to manufacturer or a trusted source of product*
- *Transparency/new information = more informed decisions to empower clinicians*
- *Revenue opportunities to serve patients where they reside - fulfillment services to care centers/patient homes*
- *Easier integration to add acute care locations and additional ambulatory centers to gain the synergies of scale*

For a provider network of 100,000 surgeries, Standvast d*elivers a 10 to 1 payback in the first nine months and a sustainable $60+M annual operating margin improvement creating a transformative impact that is needed today.*

Results of a pilot of the Standvast solution:

Standvast has piloted the patent pending solution with a leading provider (main level 1 trauma hospital with multiple satellite hospitals and ambulatory surgery centers with 25K annual surgical cases) who serves a large metropolitan area. The pilot focused fulfilling a subset (~30%) of the OR volumes, including the Main hospital. The procedures were selected based on the clinical leadership's change management support and appreciation for the need for supply chain transformation. The pilot was paused due to the Covid 19 pandemic response.

One of the most exciting results thus far is the level of clinician engagement. We observed that clinicians are the loudest supporters and are active participants in the change efforts, as it:

- *Simplifies and improves their ability to effectively care for patients,*
- *Provides new trusted, timely data, and*
- *Allows greater time and attention on patient care.*

Clinicians unilaterally recognized the value of the solution as the way to transform care/costs, improve OR/procedural efficiency. They saw it as the "future" and **"only real solution to the longstanding problems within the healthcare supply chain".**

The pilot demonstrated Standvast's supply chain systems, fed with data from the EHR, can:

- *Forecast item/procedure demand four weeks out to 98% accuracy, which exceeded expected 95% result,*
- *Forecast demand by day to 98+% (2% are last minute cancellation or changes),*
- *Auto-order consolidated bulk deliveries and discounts, and*
- *Enable in-stock levels at 98+% more than one week from demand, virtually eliminating the need for small parcel, priority, express, or trunk stock deliveries.*

The impact of these processes **greatly reduces transportation, product, and inventory costs.**

The pilot also demonstrated Standvast's fulfillment and inventory processes/systems can:

- *Create closed-loop data and process flows to fulfill specific procedure/patient cases,*
- *Deliver 99% of the just the right items for each procedure case at just the right time,*
- *Consolidate inventory, ordering, and processing in one central location,*
- *Ensure the highest level of service and inventory accuracy,*
- *Track inventory location by serial, lot, and location with 99+% accuracy, and*
- *Provide accurate procedural and preference card level usage/waste.*

The impact of these efforts **greatly reduces inventory on hand in the hospital/network, clinical time and attention to procedural inventory handling, and the current overhead for resources (time/space/effort) by simplifying clinical/hospital efforts.**

Lastly, the pilot demonstrated Standvast's proprietary clinical support systems can:

- *Create a trusted source of near real-time data for transparency and clinical action,*
- *Provide analytics to empower clinicians to improve 25% of the preference cards and a further 20% reduction in preference cards in the first two months of the pilot*
- *Utilize basic machine learning to provide actionable recommendations for efficiency improvement.*

The impact **improves waste, preference cards, and product selection by procedure.**

We remain confident well-run providers with scale will be able to capitalize to transform the margins, quality, and accessibility of care. Based on detailed assessments from a broad range of leading providers and from the pilot experience/results, we firmly believe the Standvast solution can **reduce total supply chain costs by 15 to 20%, enhance the quality of care, and create significant margin impact for a provider**. For providers with **100k procedures, the approximate margin improvements are $60+M per annum and a ROI measured in months**.