

Addressing Healthcare's Supply Chain Challenges with Blockchain

By David Devine

Supply costs are expected to exceed the cost of labor for healthcare organizations by 2020. This is due in part to organization catering to the unique needs of physicians as they order their supplies, the sheer number of procedures being performed and their dependence on numerous people to perform a job.

Healthcare organizations face many challenges in creating an efficient supply chain due to numerous intermediaries involved in processes, challenges in tracking the origin of products or where they are at a given time, and the risk of human error. For healthcare organizations, blockchain could address many of these challenges allowing them to better manage their inventories and do so in a more cost-effective way.

What Healthcare Can Learn From Blockchain Use Today

Early adopters of the technology are showing that the possibilities of using blockchain are virtually endless. Within the supply chain market, the increased accountability and transparency promises

to create a better, more efficient and accurate supply chain across all industries.

- **Reduce human error while increasing efficiency.** IBM and Maersk are partnering to create a blockchain shipping solution that's more efficient. Their technology simplifies the process of [determining the location of a container](#) from 10 steps to one step. Healthcare organizations could use this blockchain platform to identify exactly where a medication or medical supply is leveraging a similar manner. By reducing the number of people involved, the risk of human error will decrease and the process will be more efficient.
- **Smart contracts are increasing contract adherence.** Smart contracts enable organizations to hold each other accountable and ultimately increase trust between organizations. With these types of deals, the requirements for a deal can be put into the blockchain and then they're executed against automatically. This ensures that both parties keep their end of the agreement. Orders are automated and executed against these agreements which reduces the risk that an agreed upon part of an order is forgotten.

For healthcare organizations, this could increase the number of companies willing to purchase supplies as the smart contract establishes a built-in level of trust that the other party will hold up their end of the bargain. As a result, it could be

easier for new suppliers to enter the space which could bring in better products or lower prices.

- **Lower cost by decreasing dependence on middlemen.** [UPS](#) and other members of the [Blockchain in Transport Alliance](#) are establishing blockchain standards for the freight industry. This group is placing bets on blockchain as a means of lowering costs in the future. With blockchain, the need for freight brokers who facilitate transactions between shippers and carriers will be reduced. Instead, transaction between carriers and shippers can occur within blockchain in a more open manner.

Similarly, medical suppliers serve as intermediaries between producers of medical devices and supplies and healthcare organizations. With blockchain, purchasers can go straight to the distributor which ultimately lowers the cost of supplies. With increased transparency into pricing, supply levels and shipping time, providers can also make more informed decisions about brands, quantities and urgency of receiving a product.

- **Increased transparency to improve safety.** At Walmart, [FoodTrust](#) tracks the origins of produce from farm to the store. For Walmart, this can enable them to increase transparency with customers on where the products are coming from and allows them to better pinpoint reoccurring problems with a given farm like spoilage or poor quality while also more precisely identifying product impacted by foodborne illnesses.

In a similar way, blockchain can create a safer blood donation process. With blockchain, blood can be tracked in a decentralized manner. This would decrease the amount of discarded donations by better tracking and allocating donations to ensure they are used while they're viable. Additionally, the donor's personal data can be connected to their blood in an anonymized fashion. This means that it will be easy to verify the origin of the blood and verify that it safe to use. Since the blood will be tracked, donors can also receive notifications when blood is used. This has [increase blood donation](#) in

Sweden, ultimately increasing the safety of care as blood shortages are averted.

By gaining awareness of the potential of blockchain within the industry, healthcare organizations can begin to think about the future. They can incorporate blockchain into their longterm operations strategy. This will allow you to allocate investments appropriately and assess today's processes so that when blockchain becomes a reality all the pieces are in place to realize its full value.

Key Takeaways

As healthcare organizations seek to optimize their business today and create the strategy for tomorrow, deploying blockchain across their supply chains can transform this area of their business.

Think differently.

Look to other industries to identify opportunities where blockchain is being used today.

Plan differently.

As you look to the future, identify the potential being displayed by blockchain in your supply chain and take this into account in long-term strategic planning.

Act differently.

Continue to look for ways to optimize business processes, reduce inefficiencies and improve your infrastructure today.



huronconsultinggroup.com

© 2022 Huron Consulting Group Inc. and affiliates. Huron is a global consultancy and not a CPA firm, and does not provide attest services, audits, or other engagements in accordance with standards established by the AICPA or auditing standards promulgated by the Public Company Accounting Oversight Board ("PCAOB"). Huron is not a law firm; it does not offer, and is not authorized to provide, legal advice or counseling in any jurisdiction. 18 - 1309