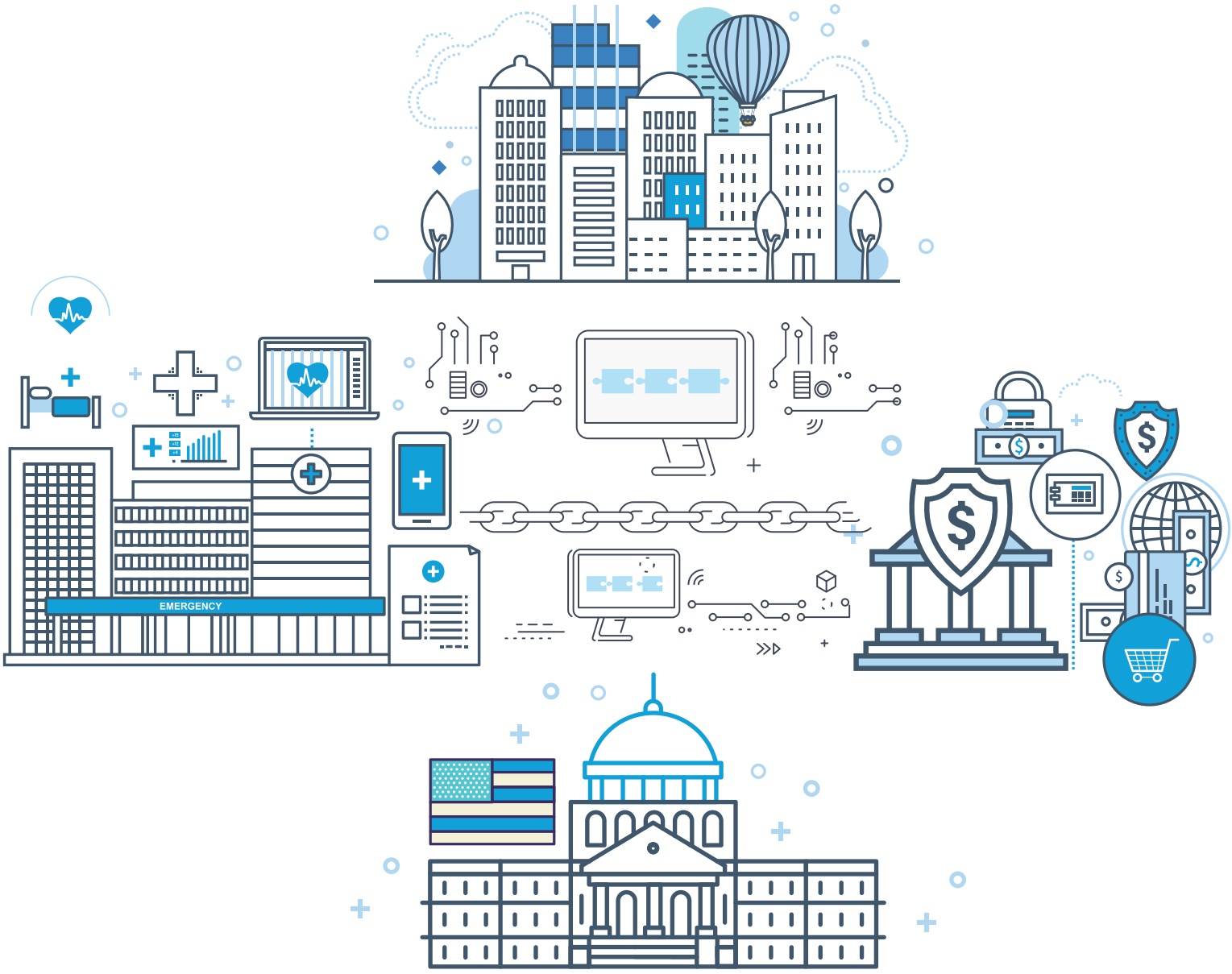
payspan®



How Blockchain Can Connect Payers, Providers and Consumers

Improving Quality of Care by Simplifying Value-based Contracts

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A Member Experience in Today's Healthcare System: Meet Jane



Jane is a 72-year-old lung disease patient who is a member of a Medicare Advantage plan. One morning, she woke up and had trouble breathing, and a family member took her to the emergency room. Since the doctor did not have access to her medical records, he decided to be safe and perform two costly tests. He prescribed an expensive short-acting bronchodilator inhaler and told Jane she would need to use oxygen until the medication started working.

Later, Jane called her health plan to find out her portion of the cost, and the customer service representative noted that the health plan had no record of Jane's chronic condition. Jane informed the representative that the diagnosis had been made three months ago. A search for documentation revealed that information from Jane's primary care doctor and pulmonologist were in her records, but she had not yet been identified in the system as having a chronic illness.

Had the health plan known right away about her diagnosis, they could have communicated with her provider about quality care initiatives and invited Jane to participate in a care management program for lung disease. Had action been taken in Jane's treatment and/or had she enrolled in the program, Jane may have avoided the health episode that led to an emergency room visit that was costly both for her and the health plan. Most importantly, Jane's chronic disease would have been prevented from progressing further.

The Problem

This scenario is just one example of hundreds of thousands of real stories that occur every day due to a fragmented, disconnected healthcare system. A lack of connectivity between payers, providers and their patients prevents coordination of care across multiple care providers, leading to lower quality healthcare, poor health outcomes and higher costs for payers and members.

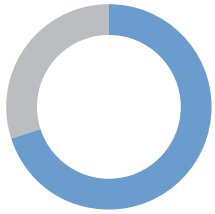
For years, there has been a consensus among healthcare experts that interoperability is the solution to this problem. Yet, payers, providers and health systems still struggle to meaningfully share data quickly and efficiently. Healthcare companies have been reluctant to trust current security technologies for transmitting personal health information due to the risks of hacking, fraudulent claims and publication of private information.

A New Promising Solution

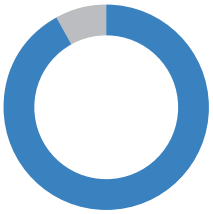
However, increasing numbers of payers are considering the use of blockchain - an innovative technology that can help payers exchange data at a higher level of encryption with their providers and consumers in real-time. Blockchain could help the U.S. healthcare system finally address the healthcare cost crisis that continues to escalate with no end in sight.

Payers Considering Blockchain Solutions

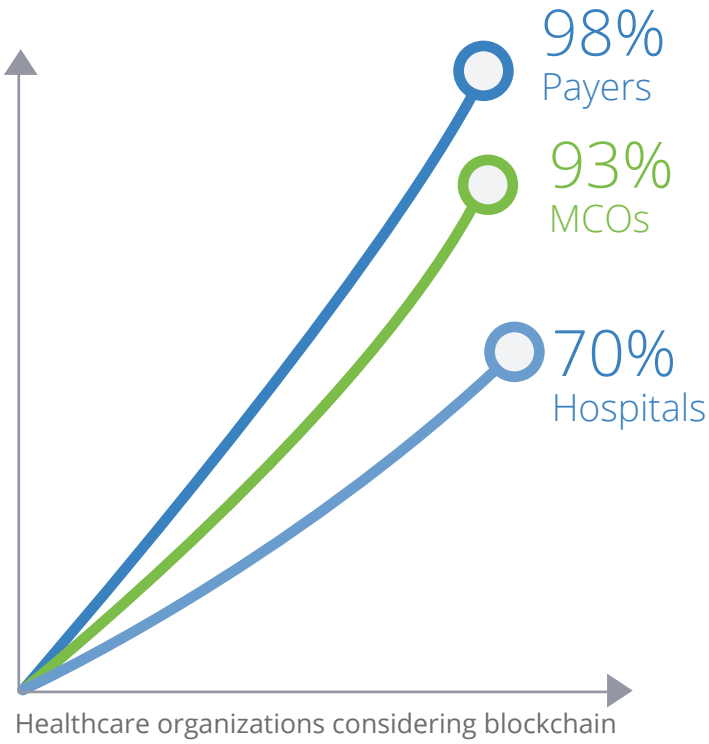
Banks are already using Blockchain, and healthcare organizations are not far behind. A Black Book Market Research survey of 88 payers and 276 providers in the third quarter of 2017 revealed that 76% of payers are considering implementing blockchain solutions.[1] Additional results showed that:

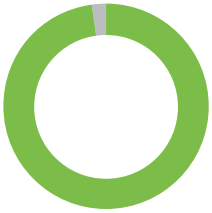


70%
of payers expect to deploy Blockchain solutions by Q1 2019



98%
of payers with 500,000+ members are actively pursuing the implementation of Blockchain





93%
of managed care organizations and 70% of hospitals believe Blockchain can make interoperability possible



Payspan Ready to Help Payers

With more than 25 years of experience processing electronic payments (EFT/ACH) and remittance information, Payspan is already securely facilitating the communication of hundreds of thousands of transactions per day for commercial, Medicare and Medicaid payers and their providers over the largest network in the industry.

Payspan is looking to partner with innovative payers to participate in the Blockchain networks we are building to communicate complex, value-based contracts. So, people like Jane can receive the right care at the right time, providers can receive directions on value-based care at the time of diagnosis, and payers can improve health outcomes, reduce spending and drive revenue.

Read on to learn more about how Blockchain can connect payers, providers and patients.

What is Blockchain?

Blockchain is a secure cryptrography ledger technology that collects and validates information in real-time. It is a digital ledger of transactions that is decentralized across a network of computers. Decentralization eliminates the risks inherent in having private information stored and managed in a centralized location, where one entity, such as a single bank, would have complete control over the input onto the ledger.

Blockchain is a continuously growing list of records, called blocks, that are linked and secured using cryptography. Each block typically contains a hash pointer as a link to a previous block, a timestamp and transaction data. Blockchain can record transactions between two parties efficiently and in a verifiable and permanent way. Once recorded, the data in any given block cannot be altered retroactively without the alteration of all subsequent blocks, which requires collusion of the network majority.

Each time a transaction or update is made on one computer, the change occurs across all computers in the network in real-time. The Blockchain is accessible only to validated and authorized users on the network, such as a provider or administrator of claims for a health plan.



EHR | Blockchain API | Access Validation | P4Q Smart Contract | Update

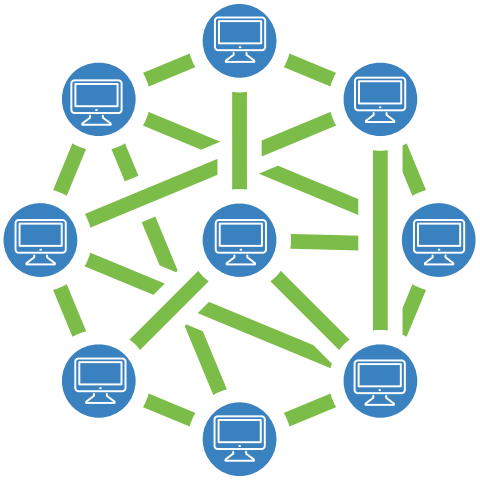
What Makes Blockchain More Secure?

What makes Blockchain virtually tamper-resistant is the use of cryptographic functions that assign 20-digit codes to each authorized user and to each computer where the ledger is stored.

In a centralized system, a hacker could easily break into one bank's computer files, such as what happened with the data breaches at Equifax in 2017 and Target in 2013. According to the HIPAA Journal, more healthcare entities reported breaches in 2016 than in any other year.[2] In a decentralized system, the hacker would have to crack the 20-digit codes simultaneously on each computer in the network, which could number in the thousands depending on the size of the network.

Viewed as a solution to the barriers against interoperability, Blockchain can be used in the healthcare industry to validate, transport and exchange sensitive information – presenting a feasible solution to a problem that has plagued healthcare for years. Finally, it may be possible for payers and providers to share the data needed to improve quality care, achieve better patient outcomes and reduce costs.

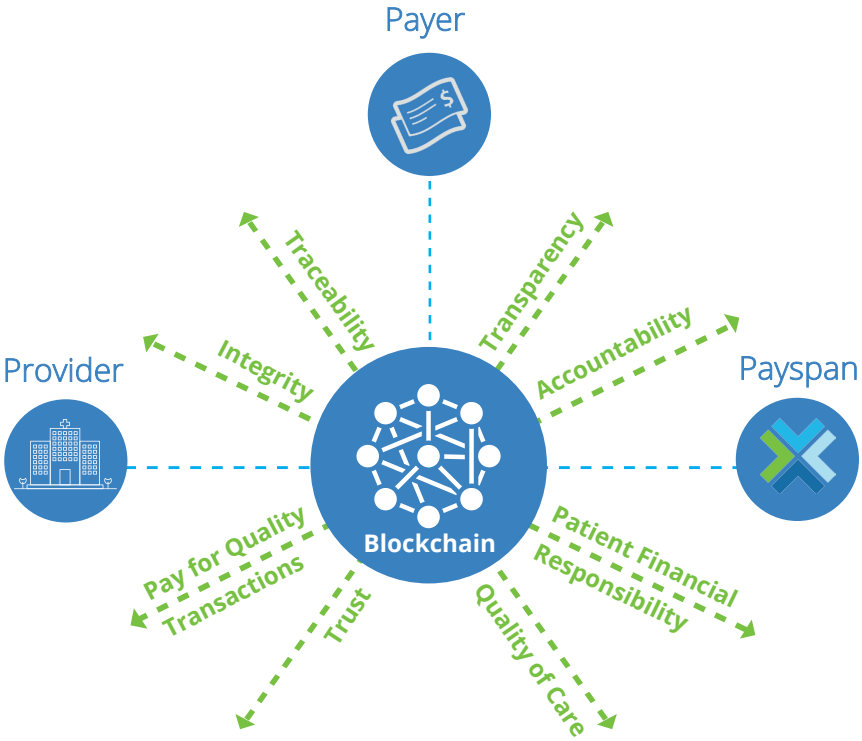
Decentralized System



Benefits for Payers

Blockchain's cryptography security complies with HIPAA, eliminating concerns about privacy and security violations. As a result, the technology could enable providers to open their electronic health records and patient management systems to broader networks, allowing payers, providers, patients and other stakeholders to exchange sensitive medical information and patient generated data as well.

Innovative companies like Payspan are developing APIs to connect provider and payer networks for value contracts, claims and payment processing, and between healthcare systems for patient records, leading to greater transparency between payers and providers. Smart contracts would apply data standards across the network to validate and format the data consistently. Blockchain would enable payers to:



Achieve Value-Based Care

- Communicate with providers in real-time about incentives available to them for specific patients
- Identify care gaps in real-time and resolve them quickly
- Shepherd patients more quickly and efficiently into appropriate care programs
- Includes visibility to all providers across the patient's care continuum
- Guide physicians to improve clinical decision-making at the point of clinical care

Improve Operations

- Update and maintain value-based contracts more efficiently via 24/7 automation
- Access data locked away in proprietary PMS or EHR systems
- Make payments faster to providers
- Reduce paperwork, duplication of data and the need for manual validation of data
- Quickly and efficiently validate providers
- Correct inaccurate or outdated information in provider database
- Reduce administrative costs and better retain members through higher satisfaction and outcomes



Better Quality for Public Sector

Blockchain could help the Department of Health and Human Services meet its goal to have 90 percent of Medicare fee-for-service payments linked to quality and effective management of populations by 2018.[3]

Blockchain could help in the following ways:

Automate the unique reporting requirements for Medicare and Medicaid providers, enabling providers to validate value contracts to ensure compliance and data validation.

Validate payer, provider and member activity in the CMS Star Ratings Program by pulling in claims, fitbit and provider PMS data to close care gaps, resulting in the following benefits for Medicare Advantage programs:

- Payments to providers based on incentives
- Higher Stars ratings
- Improved marketing capabilities
- Increased revenue



Bringing Payers and Providers Together

To say that providers distrust health plans is an understatement. Currently, providers feel hounded by requests for pre-authorizations, explanations for prescriptions, and documentation to validate terms of value contracts, not to mention rejections of their claims for treatment costs. Many do not bother to hide their frustrations either, expressing complaints publicly about feeling hindered by health plans and even commiserating with patients who share their animosity.

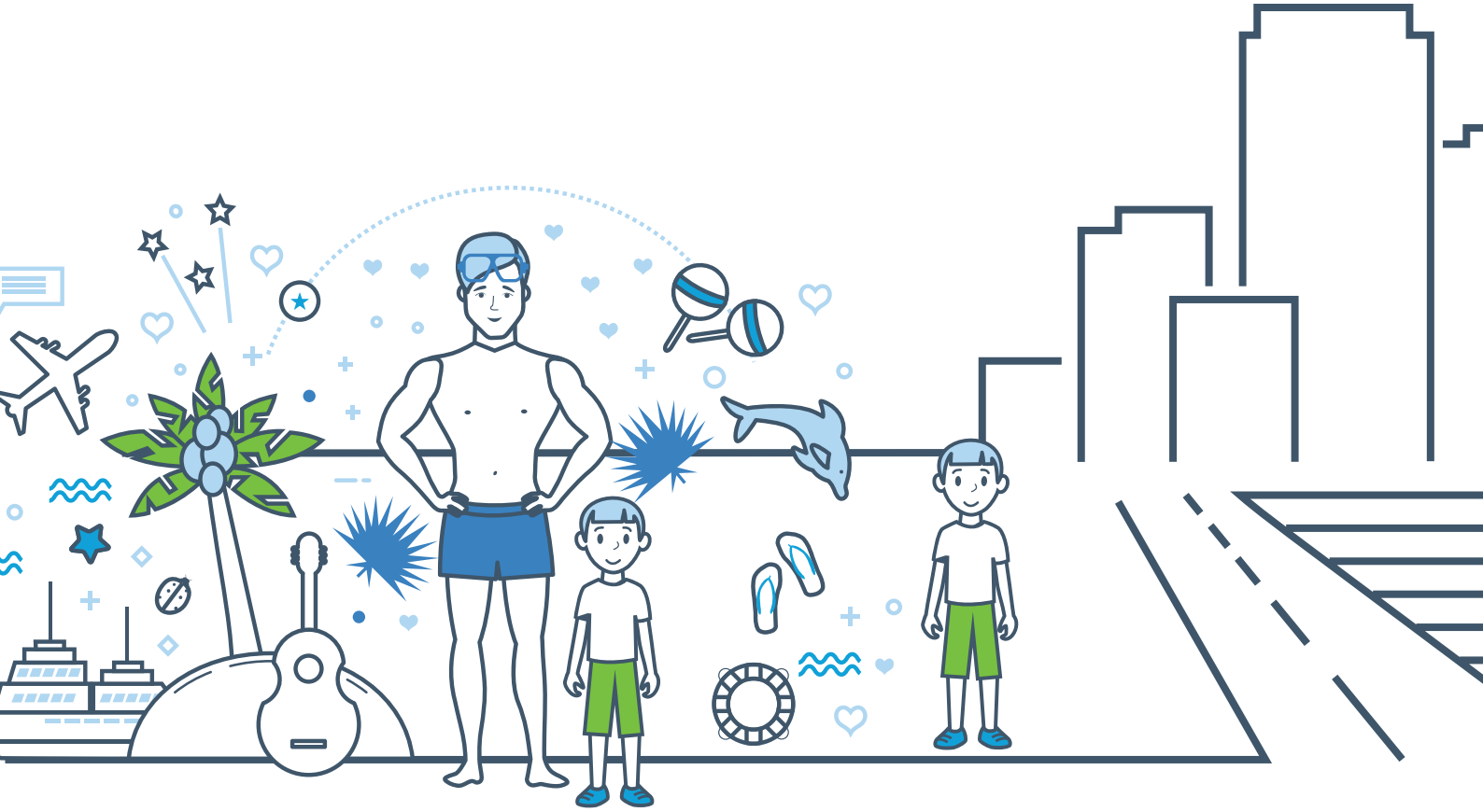
In addition to these inconveniences, providers deeply resent having to hire staff just to process what they perceive as needless paperwork standing in the way of being able to manage their patients as they see fit. To pay for these overhead costs, they feel pressured to see more patients in less time. Blockchain could dissolve these headaches, give more control back to the provider and facilitate more of a partnership in care between payers and providers.

By opening their records to Blockchain technology, providers would be able to make sure their data is used in such a way that it benefits them or their patient. Blockchain would enable them to tap data provided by payers as well as their own data that has previously been locked away in a silo, to make better clinical decisions that result in improved patient outcomes.

Happier Providers Means Better Business for Payers

The benefits that Blockchain could generate for providers could improve their outlook by eliminating the burden of keeping up with cumbersome, complex value contracts and processing never-ending streams of paperwork. As a result, they may value payer guidance about quality measures and the opportunity to earn revenue, which could improve their relationships with payers, resulting in improved coordination of care and more trust. Providers would benefit from:

- Clarity about the quality incentives available to them
- Prescriptions validated in real-time from the providers' system
- Elimination of scanning and faxing documents
- Faster reimbursement for treatments
- Additional revenue incentives tied to quality of care delivered



Happier and Healthier Members

Today, consumers are disillusioned with the healthcare system and feel let down by health plans and even their providers who cannot deliver satisfying experiences. Consumers are tired of feeling like they are being funneled through an impersonal care system that includes physicians that can barely spend five minutes with them.

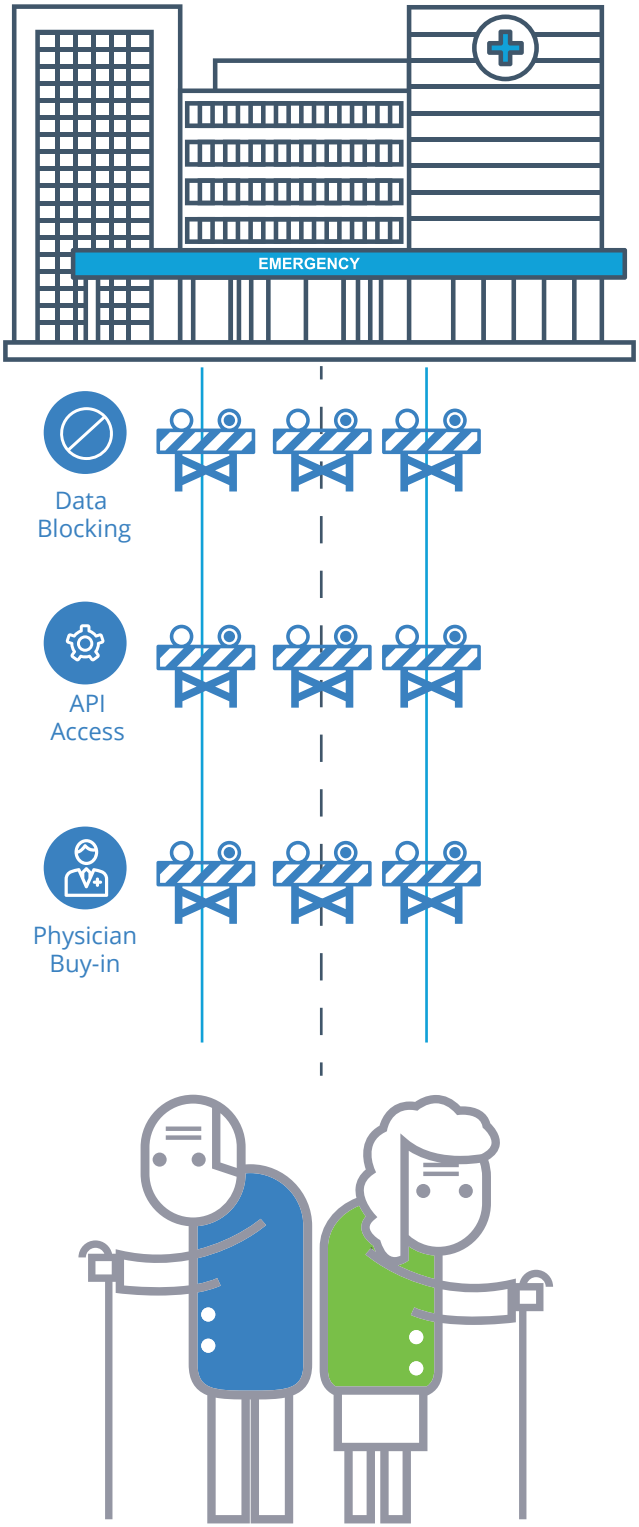
If payers and providers can forge a partnership based on the shared values of achieving value-based care, everybody wins, and that includes consumers as well. Blockchain can make it possible for providers to:

- Validate member insurance quickly during a doctor visit and provide member responsibility payment information
- Provide more reliable information from health plans about eligibility and benefits
- Reduce patient check-in time at facilities
- Provide a "Personal Health Data Wallet" that gives patients a variety of online payment options
- Link lifestyle management apps to medical records to help patients improve lifestyle behaviors
- Offer visibility into their quality care plans as recommended by the health plan
- Provide information about quality care they can share with their other providers
- Enable member-patients to become proactive in their own care
- Provide access to a portal that contains their electronic medical records
- Give members a sense of control and satisfaction

Blockchain clearly has the power to widely impact all stakeholders in the healthcare system with a domino effect. Empowered physicians with more information and control over their practice can lead to happier, healthier patients, which means happier, healthier members, which translates to reduced healthcare costs for payers.

How Do We Get There?

While 75% of hospitals have implemented at least a basic EHR, up from 9% since 2008, the EHRs alone cannot improve quality of care unless they can be shared with all care providers involved with a patient's care, according to the American Hospital Association.[4] Some hospitals have been able to share medical information with each other over health information exchanges, but only a quarter of those hospitals can actually use the electronic information.[5] For ambulatory providers, that percentage is even lower.



Challenges Lay Ahead

Physician buy-in – In order for Blockchain to be effective, providers need to understand and trust Blockchain. According to the Black Book Market Research survey, only 19% of hospital executives are considering Blockchain and only 9% of provider health systems say they will implement Blockchain by Q2 2018.[6]

Payspan already connects tens of thousands of providers and is ready to leverage the Payspan network to help health plans implement Blockchain.

40K

Providers log into the Payspan portal every day.

500K+

Providers paid monthly.

1.3M

Provider payees are paid in total.

APIs – Healthcare systems need to be able to talk to one another. Blockchain requires data inputs to record data on the ledger. Therefore, API connections between payers and providers would need to be developed. Payspan is progressively connecting to more EHR and PMS systems via API connections that block chains can access to validate transactions.

Health information data blocking – Congress is concerned that data blocking inhibits benefits of EHR adoption to healthcare system. Half of respondents to a national survey reported that EHR vendors routinely engage in information blocking and 25% of respondents report that hospital and health systems do as well. The study recommended that new legislation be enacted to stop blocking.[7]

Summary

Healthcare spending per capita in the United States continues to be the highest among the Western nations, yet ranks on the low end in terms of quality of care, with little to show for that spending. In a Commonwealth Fund comparison of 11 nations, the United States ranked last in quality of care, yet the percentage of GDP spent on healthcare was the highest.[8]

Payers are doing their best to reduce costs by implementing a value-based care reimbursement system to reward physicians for outcomes versus fee for service. However, a lack of provider adoption due to restrictions with exchanging sensitive medical information continues to hold up progress. Blockchain could be the key to unlocking that untapped rich data that payers and providers need to improve clinical decision-making and move to a reimbursement system based on value rather than service.

Blockchain's cryptography-based security can ensure data integrity, and as a result, trust between payers and providers, transparency and accountability among all stakeholders across the healthcare spectrum.

Payspan Offers the Expertise to Help You Implement Blockchain

Payspan is on the forefront of the evolving healthcare financial landscape as it relates to payments automation, member engagement and quality management. Let us help you stay ahead of the curve by forming a partnership to implement a Blockchain solution that connects you in real-time with your providers and members. If you would like to discuss a potential partnership, or if you would just like to learn more about the technology, call 844-400-4043 or email salesteam@payspan.com.

[1]Black Book Market Research, "Blockchain, the Next Big Healthcare Technology Innovation," 2017
[2]HIPAA Journal, "Largest Healthcare Data Breaches of 2016," Jan. 4, 2017
[3]Centers for Medicare and Medicaid Services, "Better Care. Smarter Spending. Healthier People: Paying Providers for Value, Not Volume," Jan. 26, 2015
[4-5]American Hospital Association, "Why Interoperability Matters," 2015
[6]Black Book Market Research, "Blockchain, the Next Big Healthcare Technology Innovation," 2017
[7]The Milbank Quarterly, "Information Blocking: Is it Occurring and What Policy Strategies Can Address it?" Julia Adler-Milstein, Eric Pfeifer, March 2017
[8]The Commonwealth Fund, "International Profiles of Healthcare Systems," January 2015



About Payspan

Payspan is the nation's leading provider of healthcare reimbursement and payment automation services, leveraging the largest healthcare network in the United States to drive value-based care reimbursement, improve the patient experience and reduce costs for payers and providers. Payspan connects more than 750 health plans, 1.3 million provider payees and 1 million consumers to facilitate alternative payment and reimbursement solutions and the exchange of meaningful healthcare information.

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