

# Blockchain & Digital Health Assets



John Bass, Founder & CEO, Hashed Health

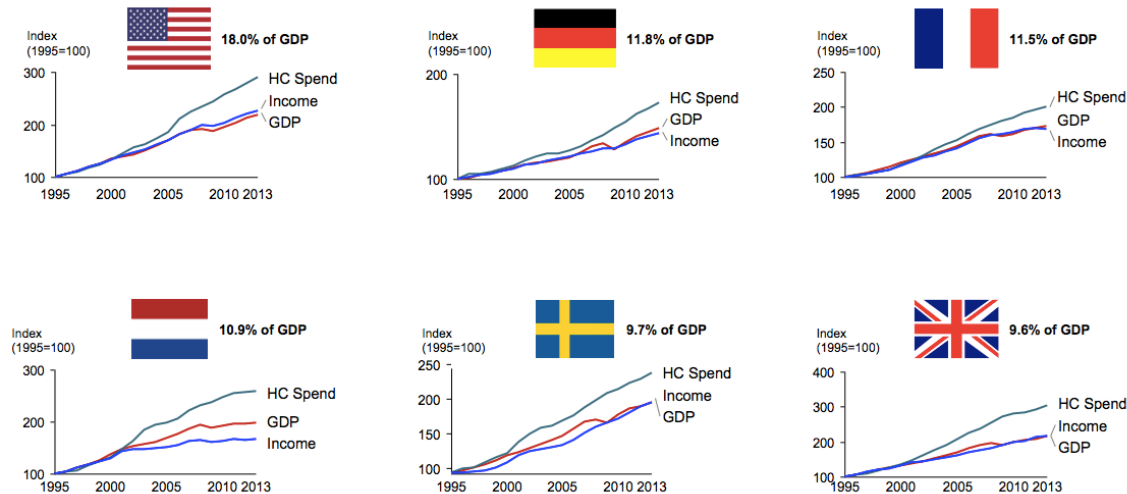
[www.HashedHealth.com](http://www.HashedHealth.com)

@johngbass

<https://www.linkedin.com/in/johngbass/>

# Global Healthcare's Challenge: The Complex Relationship Between Cost & Quality







## The Health Care Problem is a Global Issue Health Care Spending vs GDP and Income



Notes: Indexes based on local currencies; Income = Personal Disposable Income; HC expenditures as % of GDP are OECD estimates  
Source: Economist Intelligence Unit May 2014, BCG analysis

Copyright © Michael Porter 2016

## Variation in Quality Within and Across Countries

- 2x** Variation in 30-day mortality rate from heart attack in US hospitals 
- 4x** Variation in bypass surgery mortality in the UK hospitals 
- 5x** Variation of major obstetrical complications among US hospitals 
- 9x** Variation in Dutch hospitals' complication rates from radical prostatectomies in the Dutch hospitals 
- 18x** Variation in reoperation rates after hip surgery in German hospitals 
- 20x** Variation in mortality after colon cancer surgery in Swedish hospitals 

Variation is pervasive across conditions and all types of outcomes wherever systematic data is available

Copyright © Michael Porter 2016

Unsustainable Costs

Growing Variation

# 74 MILLION

US WORKERS COVERED BY EMPLOYER

Source: Employee Benefit Research Institute

17.8% of  
GDP



**\$3.2 TRILLION**  
Total Healthcare  
Costs - US

\$10,000  
per capita

\$14,300  
average per  
family



**\$338.1 BILLION**  
Consumer Out of  
Pocket Spend

230%  
increase since  
2006

# Health Infrastructure Working As Designed



## trans·ac·tion

/tran'sakSH(ə)n, tran'zakSH(ə)n/

*noun*

an instance of buying or selling something; a business deal.

"in an ordinary commercial transaction a delivery date is essential"

*synonyms:* deal, business deal, undertaking, arrangement, bargain, negotiation, agreement, settlement, proceedings  
"property transactions"

- the action of conducting business.

*synonyms:* conduct, carrying out, negotiation, performance, execution  
"the transaction of government business"

- an exchange or interaction between people.  
"intellectual transactions in the classroom"



LEDGER ACCOUNT

CONFIRM, LTD.

THIS ACCOUNT IS CURRENTLY UNBALANCED

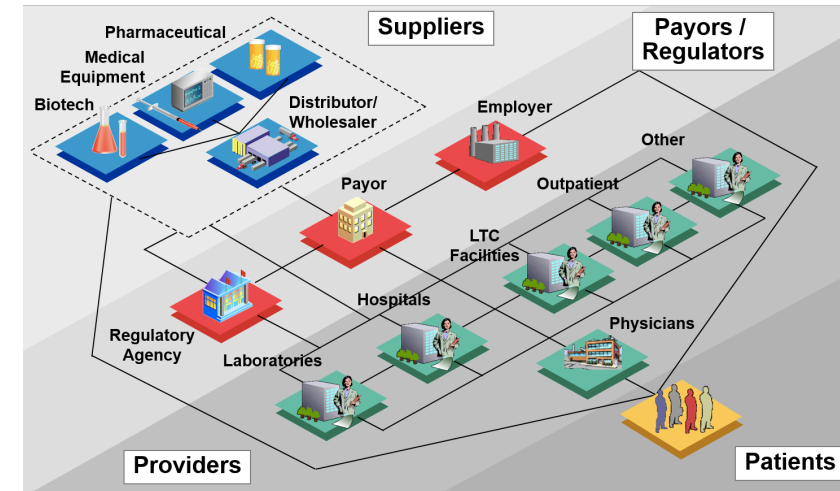
RECONCILING BALANCE (\$10,000)

DATE	ACCOUNT	DEBIT (+)	CREDIT (-)	BALANCE
1/1/2012	Payment to Suppliers, Inc.	5000.00		5000.00
2/1/2012	Payment to Suppliers, Inc.	5000.00		10000.00
3/1/2012	Payment to Suppliers, Inc.		10000.00	0.00
4/1/2012				
5/1/2012				
6/1/2012				
7/1/2012				
8/1/2012				
9/1/2012				



ORACLE

Epic

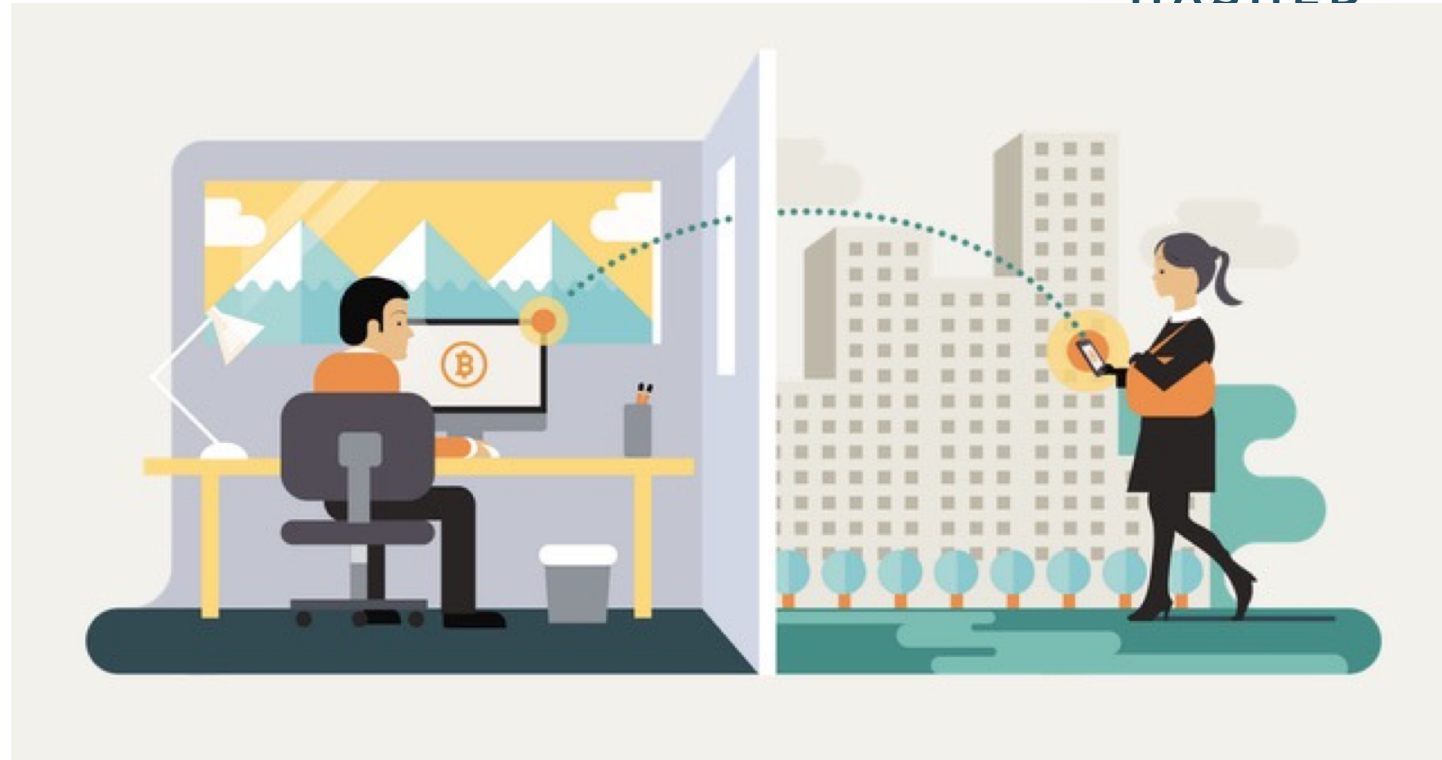


We have a cost / quality problem.

By moving  
**trust**  
to the software, we can change how  
**digital assets**  
are transacted across value chains.

The world's first  
blockchain is called

 ***bitcoin***



The Power of the  
Bitcoin Blockchain:

- Public
- Immutable
- Secure

“Limitations” of the  
Bitcoin Blockchain:

- Slow
- Energy Intensive
- Not a Development Platform
- **Narrow Definition of Asset**

The world's second  
blockchain is called



ETHEREUM

Ethereum opened  
the door to digital  
assets.



Purpose	Digital money	Smart Contracts	<b>Digital Assets</b>
	Send Currency Without Middleman	Send Digital Assets Without Middleman <b>if/when...</b>	Programmable Value
<b>Market cap</b>	~\$70 billion	~\$31 billion	~\$44 Billion
<b>Founding</b>	Satoshi Nakamoto 2009	Vitalik Buterin 2015	855 Project-specific
<b>Release</b>	Mining	\$18M presale	ICOs



Hashed Health:

digital health assets

+

enterprise businesses

+

decentralized health infrastructure



“Health As An Asset”

Medical Records

Claims

Products

Services

Patients

Data

# Healthcare Digital Asset Use Case 1:

## Identity



# Healthcare Digital Asset Use Case 2:

## Programmable Payments



# Create Your Own Economy / Market

👍 Embed Economics in Care Delivery

👍 Embed Incentives in Wellness



## “Changing the Container”

- Tokens, digital assets, currencies & markets
  - Rise of the prosumer
  - Fracking traditional industries and roles
  - Re-construct value chains
  - Collaborative, public & open source

## Blockchain + Digital Health Assets:

It's time to re-think the \$5T relationship between commerce & care.