Digital Transformation in Healthcare

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Wednesday, June 15, 2016

Healthcare & Lifesciences

The Avasant leadership team

Kevin Parikh
Global CEO & Senior Partner, Avasant

- 25+ years of experience
- Thought leader in global sourcing
- Involved in more than 350 IT sourcing transactions

Anupam Govil
Partner, Avasant

- 25+ years of experience
- ICT transformation & investment promotion leader
- Globalization & infrastructure enablement expert

Joe Frampus
Partner, Avasant

- 35+ years of experience
- Supplier & advisor experience in the sourcing marketplace
- Deep expertise in procurement strategy & governance

Who we Serve

Public Sector	Energy & Utilities	Healthcare & Lifesciences	Banking and Insurance	Hi-tech & Telecom	Travel & Transportation	Retail, CPG, Manufacturing	Media & Entertainment	Countries & Non-Profit

IT	Customer Management	Supply chain & Logistics	Finance & Accounting	Procurement	HR	Knowledge Processing	Legal Processing

IT & Business Transformation

Assisting organizations with transforming critical internal IT and business elements to drive technology efficiency, effectiveness as well as key business outcomes.

Digital Strategy

Assisting organizations through digital transformation to enhance customer experience and competitiveness

Sourcing Advisory

Assisting public and private sector clients with navigating the complex transaction lifecycle of securing critical IT, operations and business process outsourced services.

Global Strategy

Assisting private, public or government sector of mature and emerging markets with targeted economic development strategies

Managed Governance Services

Support global clients in deriving sustainable value from sourcing engagements by managing contracts, vendor relationships and performance

Key healthcare market trends

Rapidly evolving customer needs and purchase behavior

Digital Technology and Connectivity to drive patient centered care and wellness initiatives

Evolving regulations focus on value based programs, quality measures and Data Security

Shift from Pay for Service to Population Health Management

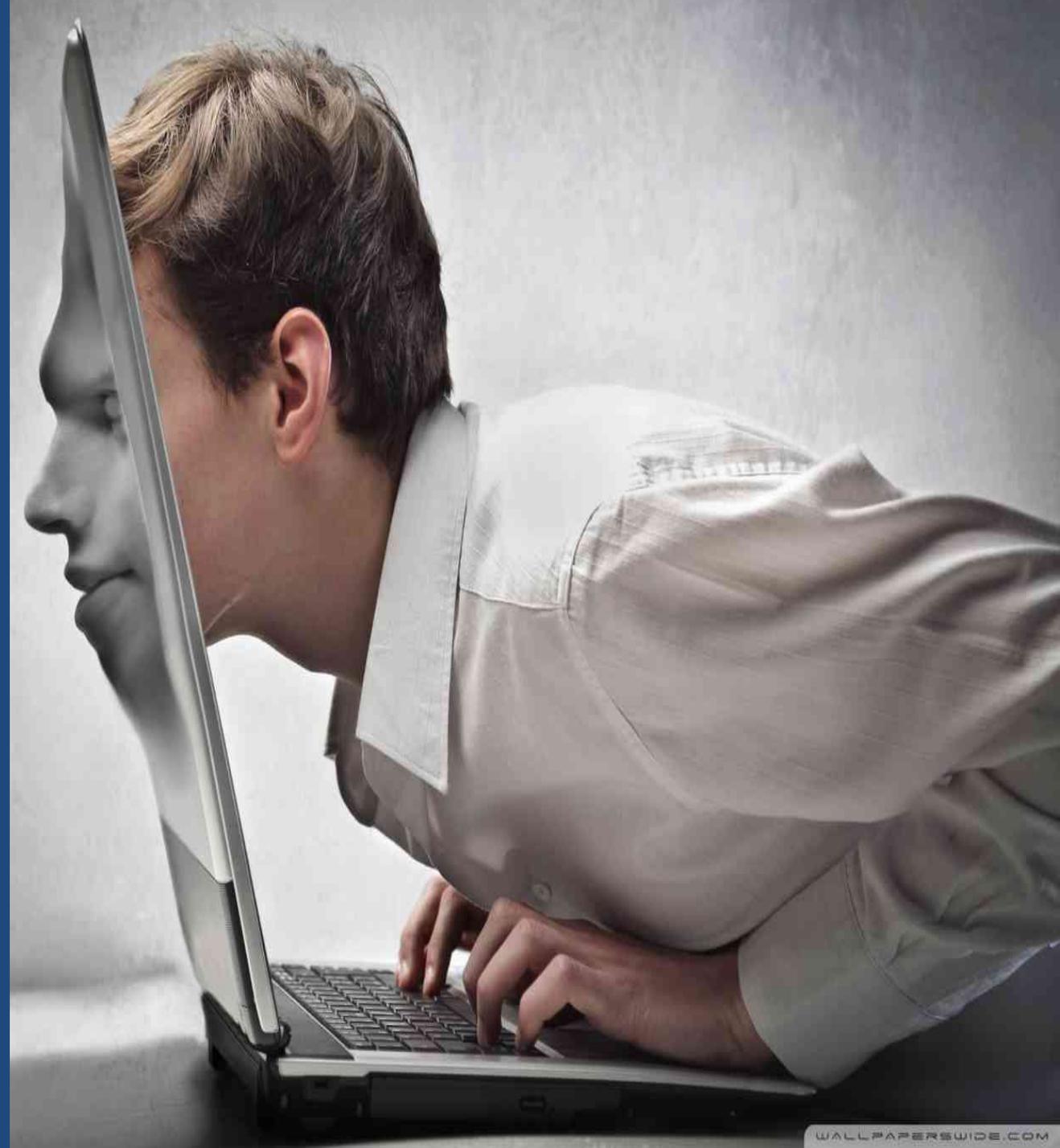Increased Provider – Payer Collaboration and Convergence

The Digital Consumer in Healthcare

- Wearables data integrates with Electronic Medical Records (EMR) in real time to facilitate preventative care, early diagnosis & treatment

- Increased adoption of telehealth services for virtual diagnosis & monitoring of chronic illness, dental issues, counseling & physical therapy

- Patients preference to pay hospital bills and health insurance premiums through digital channels is increasing across age groups

- 47% US consumers research providers online, 37% consult physician-rating sites & 15% compare hospitals online before making a selection

Merging the digital and healthcare payer ecosystem

- Increasing collaboration with Integrated Delivery Networks and shift towards Population Health Management

- Building integrated patient data platforms using Real World Evidence (RWE)

- Population stratification to create tailored health insurance plans

- Improved comprehension of consumer's overall health and fitness status to drive the insurance premiums

Healthcare providers in the digital Age

- Patient Centered Care through improved digital engagement and satisfaction measurement

- Electronic medical records to meet data demands estimated to be >35 zettabytes by 2020

- Reduce the associated risks of value based payment model through data driven decisions and service quality

- Digital automation for feasible, scalable and sustainable Population Health Management

The payer – provider collaboration and convergence

- Payers and providers are formalizing mutually beneficial financial arrangements to improve healthcare processes

- Pay for Performance incentive system rewards providers based on performance on pre-determined metrics

- Bundled payment arrangements incentivize providers to improve patient care and eliminate duplication and waste across the value chain

- Accountable care arrangements for value based and shared savings model allow the payers to take control of population health management
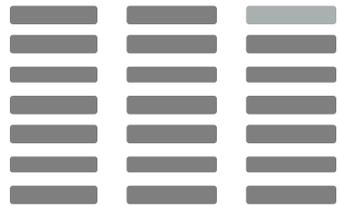
The Digital Solution for Healthcare

- Most healthcare organizations are just beginning their digital journeys

- Digital healthcare enables faster, cost-effective delivery and user friendly decision support tools providing personalized options

- Digital transformation offers an opportunity for organizations to improve competitiveness and create a foundation for outperforming rivals

The digital transformation opportunities in healthcare (1/2)
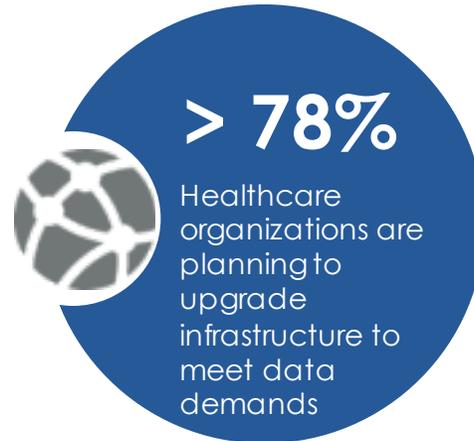
1 Digitally Enabled Personalized Care

94%

Biopharmaceutical companies investing in personalized medicine research

- Shift towards **personalized medicine and patient experiences** enabled by highly connected **digital hardware** (embedded sensors, robotics and wearables) **and software** (apps, genomics, cloud-based real-world big data analytics and nanotechnology)
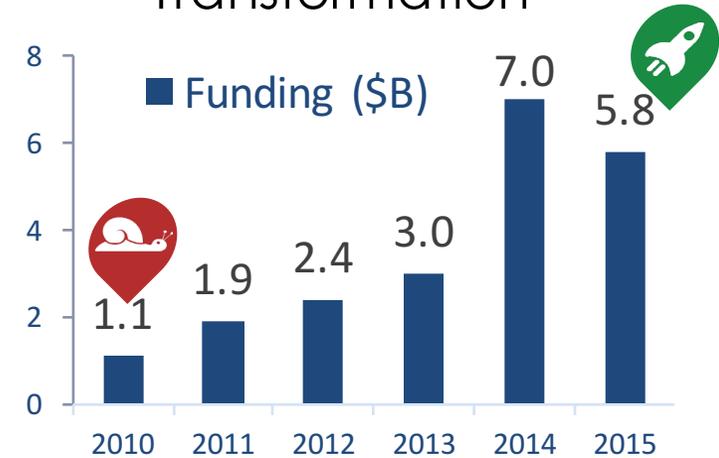
2 Data, Interoperability & Analytics key to Advancements

> 78%

Healthcare organizations are planning to upgrade infrastructure to meet data demands

- The **digital overload of healthcare information** is driving demand for **interoperability standards, interconnected healthcare facilities and Big Data clinical analytics tools and platforms**

3 Digital Health Funding driving Transformation

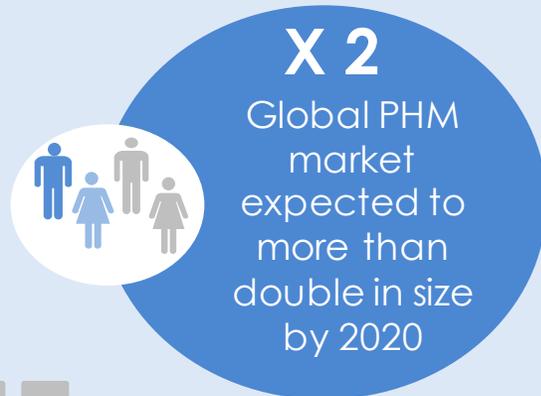Funding ($B): 2010: 1.1, 2011: 1.9, 2012: 2.4, 2013: 3.0, 2014: 7.0, 2015: 5.8

- **Digital health funding** is significantly shifting towards **validated innovation,** focused on the patient / consumer experience, enterprise solutions in workflow, population health and e-commerce

The digital transformation opportunities in healthcare (2/2)

Population Health Management on the rise

- Population healthcare delivery gaining momentum
- Transition from fee-for-service and volume of patients served to value-based fees, improvements in patient health, and associated decreases in healthcare costs

X 2

Global PHM market expected to more than double in size by 2020

80%

organizations with 100+ beds currently employ PHM initiatives

Data Security a top concern

- Healthcare organizations continue to invest in up-to-date security technologies and focus on training employees on proper data handling practices on a regular basis
- Focus on mitigating high risks of data breaches

91%

of all Healthcare Organizations reported at least one data breach over the last 2 years

x 10

number of times more medical records are worth than credit card numbers on the black market

Digital technologies for healthcare processes

Remote Patient Monitoring

Devices and applications that allow care providers to keep tabs on chronically ill, recently released, and overall "high-risk" patients

Fraud Prevention

Insurance fraud costs the industry an estimated $260 million. **Predictive Analytics** distinguishes fraudsters from valued customers and facilitates real time action
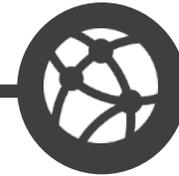
Behaviour Modification

Platforms that help patients change their habits and adopt healthier lifestyles, with the primary aim of preventing illness

Population Health Management

By leveraging Health Information Exchange (HIE), Electronic Health Records, **Care Management Platforms**, Mobile Technologies (mHealth) and data analytics, PHM improves clinical outcomes while reducing costs

Claims Processing

Robotics Process Automation provides guaranteed cost savings, 24X7 coverage and significant improvements to quality and processing accuracy

Data Security

Blockchain is a digital record keeping system that uses multi-signatures and advanced cryptography features. It has the potential to fully overcome the concerns regarding data access, security, scalability and privacy

Accountable Care Organizations (ACO) Digital Transformation

ACO Features

- Value based & shared saving payment methodology
- Quality Improvement
- Data reporting & analytics

Trends

- Healthcare strategy for specific population groups
- Consolidation of provider & payer market shares
- Improving data analytics & forecasting

Challenges

- Creating sustainable financial models
- Cost & quality measurement limitations
- Aligning ACO models
- Data Security

Road

- Breaking down barriers for data sharing
- Incentives/aligning awards
- Communication - Engaging payers, providers & customers
- Create culture of health & continuous improvement

Technology Needs

- Advance analytics
- Reports & Dashboards
- Technologies for integrations and collaborations
- Enterprise data warehouse
- Portals & mobility

Results

- 750 ACOs in operation serving 23.5 million customers in US
- Consistent improvement in quality metrics & customer satisfaction
- Estimated $500M+ savings achieved over 3 years

Digital technologies would enable ACOs to engage with broader communities, improve financial and quality tracking and reporting and achieve higher degrees of customization for incentives and customer programs

Presbyterian Healthcare

Client challenge:

Presbyterian is looking to re-evaluate their existing core management & infrastructure solution

Avasant was engaged to enable digital strategy formulation and execute the strategy by performing a sourcing transaction

Project approach:

Formulation of actionable digital strategy best suited operationally and financially

Assessment of vendors, platforms and alternatives

Analysis of digital technologies for adoption

Optimization of existing contracts to meet future procurement requirements

Project Impact:

Implementation of market best practices in terms of digital environment and vendor relationships

Competitive and flexible digital technology solutions leading to improved operations and expansion to new geographies

Platform Implementation: Social Health Platform

Business Challenges

- The baby boomer 65+ demographic is growing exponentially and living longer. This trend introduces complex and wide-spread health needs requiring a tremendous amount of support and care
- The aim is to create a social-health platform with simple built in tools to help users manage the cost and care of the aging process while significantly improving the patient experience

Infinite's Approach

The Infinite platform makes the aging process more manageable by easily letting users:
- Create and capture information through pre-defined templates
- Store important documents and files safely and securely
- Manage complex healthcare scenarios with timely access to professionals that meet the patient's needs
- Create a core social-health platform that makes it easy to share content with loved ones and professionals to keep important people engaged and informed real-time

Business Benefits Delivered

- Social Health platform based electronic communication has emphasized physicians' advice and improved adherence for patients with chronic diseases
- Improved patient satisfaction by increasing the time spent communicating with and having questions answered by their care providers.
- Improved patient education and health monitoring, encouraging behavioral changes and drug adherence, leading to "better education, increased compliance, and better outcomes"

Platform Implementation: Wellness & Preventive

Client is a leading specialty health service company under one of the largest Health Conglomerate in the US

Business Challenges

- Create a comprehensive Wellness Management solution for rolling out trainings and programs to align Provider Disease & Utilization Management processes with quality care resulting in more successful outcome based claims
- Create Member Health Coaching System for rolling out trainings and programs on Quality Disease Management processes creating informed patients base

Infinite's Approach

- Implementing Platform for Agencies, state and local governments, health plans, employers and labor trust groups to gain Visibility of Member Health Risk groups using advanced Health Intelligence and streamline the Disease Management and Health Claims Management process.
- Implementing Disease and Utilization management guidelines for Providers for aligning them to outcome based care process and ensure quality care at reduced cost through effective collaboration of member health record.
- Implementing online repository of evidence based Disease Management Guidelines to create informed members

Business Benefits Delivered

- Identified the 20% Health Risks which accounted for 80% Care processes which helped aligning the Disease Management processes towards outcome based delivery guidelines matching with Utilization Management reviews which in turn resulted in :
- $156.9 million (5.5%) reduction in total annual costs achieved through delivery of higher quality health care to Medicaid recipients.
- $11.5 million reduction in ER costs / 35% reduction in ER use.
- Allowed for a 20% increase in eligible participants while keeping Medicaid expenses below past levels.

Claims Backlog Reduction

Client is a large Federal Government Agency supporting Service Veterans

Business Challenges

- An ever increasing claims backlog and the amount of time it takes to process a claim is leading to severe discontent amongst Service Veterans.
- The goal of the agency is to fast-track claims processing and ensure optimal productivity across processing centers so as to reduce the overall backlog

Infinite's Approach

- Conceptualized and developed an Analytical and Predictive Platform with a data visualization dashboard that allows for real-time monitoring of claims processing.
- Perform What-if analysis to identify root cause problems for claims processing delays
- Built Predictive statistical models to recommend actions to speed up claims processing based on historical trending data
- Built a Responsive Web Design based data visualization platform to demonstrate all of the parameters in real time

Business Benefits Delivered

- Reduction of claims backlog
- A single view of the system through the visualization dashboards
- Processing centers productivity gains > 20% over the last year