



Beyond the EHR: from Transformation to Reinvention

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NEW ENGLAND Chapter

Beyond the EHR: from Transformation to Reinvention ... what we will cover

What is Changing

1. Industry
2. Consumerism

What do we need to thrive → Digital Reinvention

3. Population Health Management
4. Patient Engagement; Personalization
5. Cognitive Computing

1. CHANGING INDUSTRY

Old Healthcare

Fee for service
Volume
Delivery
Employer-centric
Prices unknown
One way dialogue
Transactional
Data poor & disconnected
Reactive
Standards



New Healthcare

Pay for performance
Value
Quality Outcome
Consumer-centric
Cost transparency
Engaged & mobile
Brand loyal
Integrated rich “big” data
Predictive & prescriptive
Personalized & optimized

In summary,

PAST

Fee
for
Service



Compete on Volume

- Individual Patients
- Treat Patients Who Arrive
- Focus on Acute, Episodic Encounters



FUTURE

Value-
Based
Care



Compete on Outcomes

- Entire Population
- Care for Everyone
- Focus on Health, Wellness, Prevention

2. CHANGING CONSUMER EXPECTATIONS

\$300 billion

Consumers pay more than **\$300 billion** out of pocket to healthcare providers to cover the cost of their annual care. This number is growing rapidly.

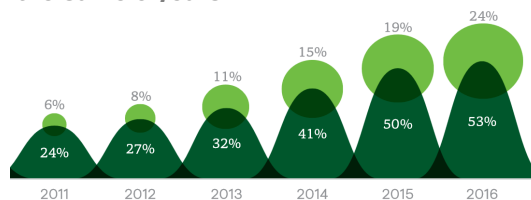


The proportion of employees with deductibles over \$1000 has gone from 10% in 2006 to 44% in 2017.



In 2017, health care spending reached an average of **\$10,345** per person in the U.S.

Employers offering a health savings account grew from 24% to 53% between 2011 and 2016, and employee participation grew from 6% to 24% in the same 5 years.



- Increased “out of pocket” costs, both premiums and deductibles
- More High Deductible Plans and Health Savings Accounts → more consumer price sensitivity
- New business models for delivering services create more “choice”
- Self service and online engagement is expanding and expected in all industries
- Seamless, frictionless experiences are now anticipated
- Patient engagement and self care are required for Population Health Management

Sources: Healthcare Payer News, HealthDay News, U.S. News, Mercer.

Consumer experiences have forever changed customer's expectations ...

NORDSTROM



amazon



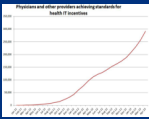
Set the “better
customer
service”
stage

Set the “better
customer
experience”
stage

Redefined
convenience

Practically
“magic”

Consumer experience in healthcare



Health IT adoption has reached a tipping point.



Technology is getting better, cheaper, faster and more ubiquitous.



Consumers increasingly expect online engagement, in all aspects of their lives.

- New business models for delivering healthcare services create more “choice”
- Self service and online engagement is expanding and expected in all industries
- Healthcare consumers are beginning to demonstrate more “retail-like” behaviors
- Seamless, frictionless experiences are now anticipated and expected

To thrive, healthcare organizations are moving to Digital Reinvention

Technologies are creating a wave of disruptions in the healthcare industry

An emerging healthcare ecosystem plays a major role across the continuum of healthcare delivery – from health and wellness to personalized patient care delivered anytime and anywhere

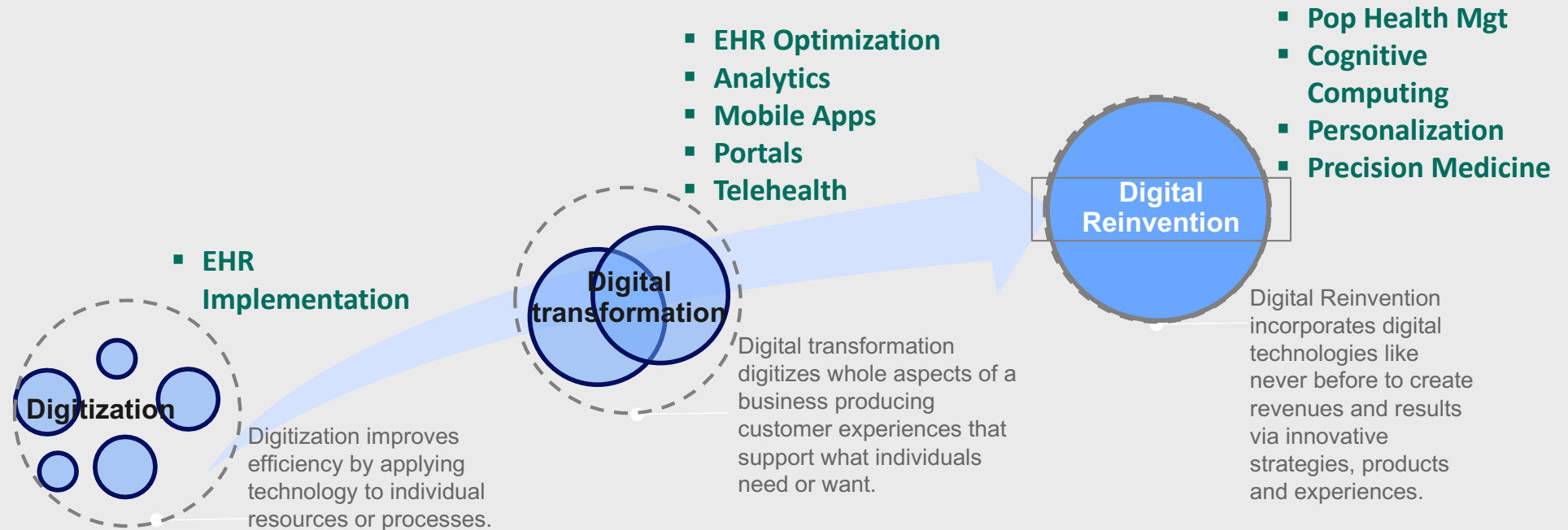
From digitization to reinvention

High cost, legacy business models and unmanageable data volumes are now being managed by advanced technologies which are helping to transform the industry

Digitally reinvented enterprise

Innovative solutions in areas including personalized care; and assistive technologies are enabling new modes of interaction and collaboration, improving the patient experience and outcomes

DIGITAL REINVENTION

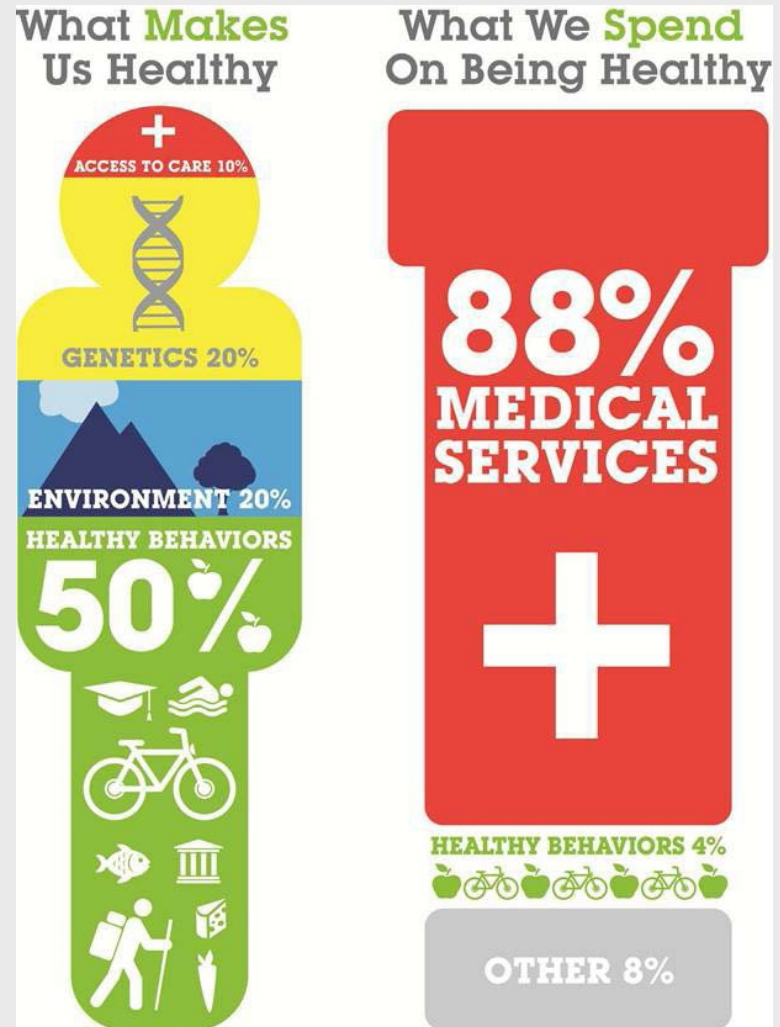


Digitization in the healthcare industry affects every aspect of care delivery and operations, enabling smarter choices and better utilization of time and resources and allowing healthcare professionals to spend more time with patients at the point of care.

Digital transformation in healthcare organizations involves connecting and utilizing data, technology and communication to redefine customer experiences and engagement and redefine business models. For example, the optimization of electronic health records to improve patient care.

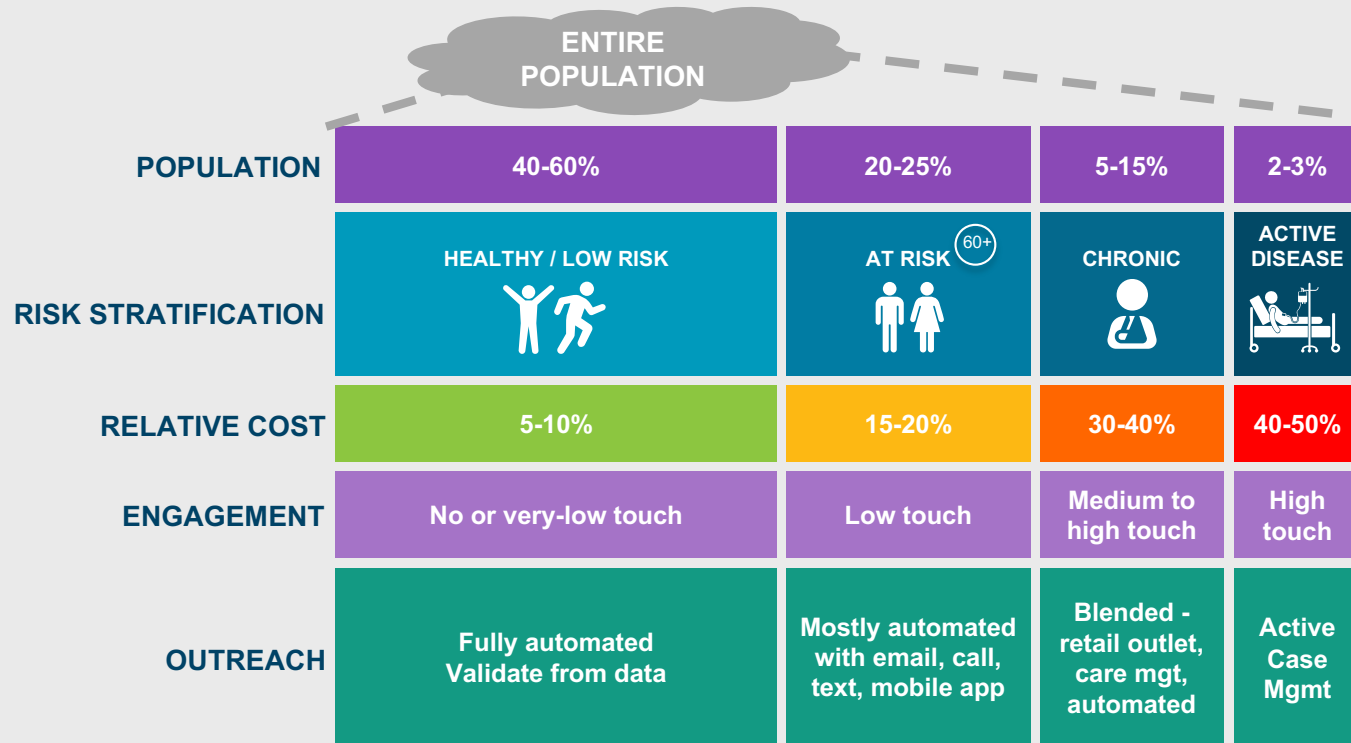
Digital Reinvention in healthcare organizations involves disrupting business models to place patients at the core of the ecosystem using technology. For example, using cognitive technologies to bring personalized care to each patient.

3. POPULATION HEALTH MANAGEMENT



Source: Bipartisan Policy Center, "F" as in Fat: How Obesity Threatens America's Future (TFAH/RWJF, Aug. 2013)

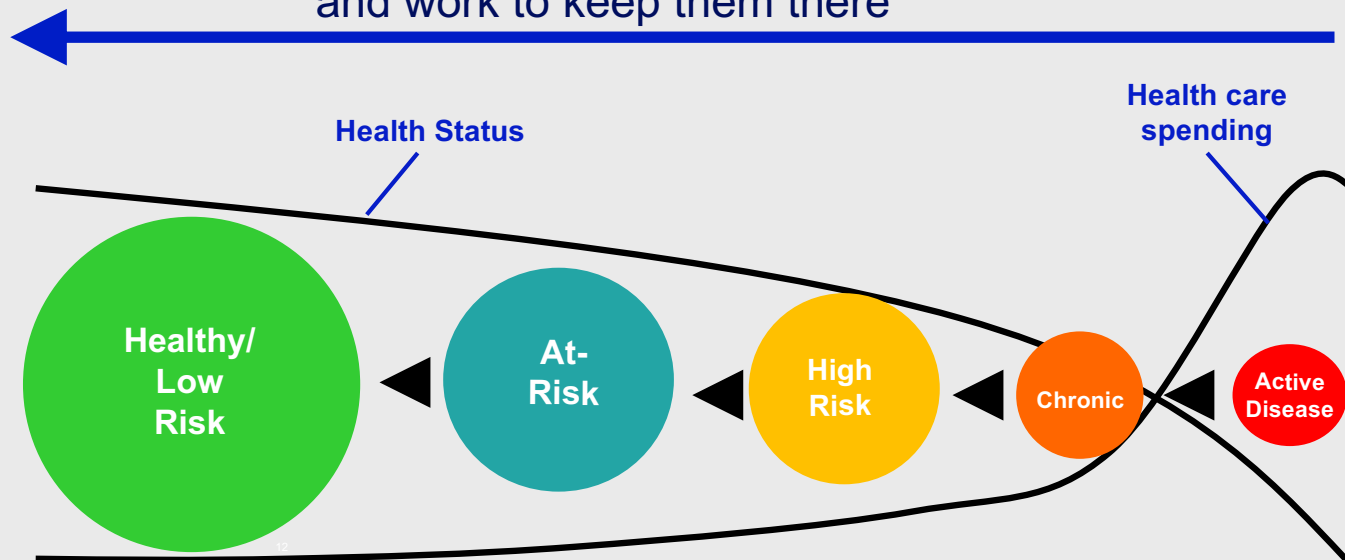
Population Health Management Model



*~20% of population
drives ~80% of cost*

Health, Wellness and Prevention is the Goal

With Population Health Management,
we help move people from right to left –
and work to keep them there



4. PATIENT ENGAGEMENT; PERSONALIZATION

“Know me”

Capture and incorporate preferences

- **What’s my history?**
- **What are my preferences?**
- **How will I respond?**
- **What will motivate me?**
- **Respect my privacy**



“Engage me”

Personalize offerings and services

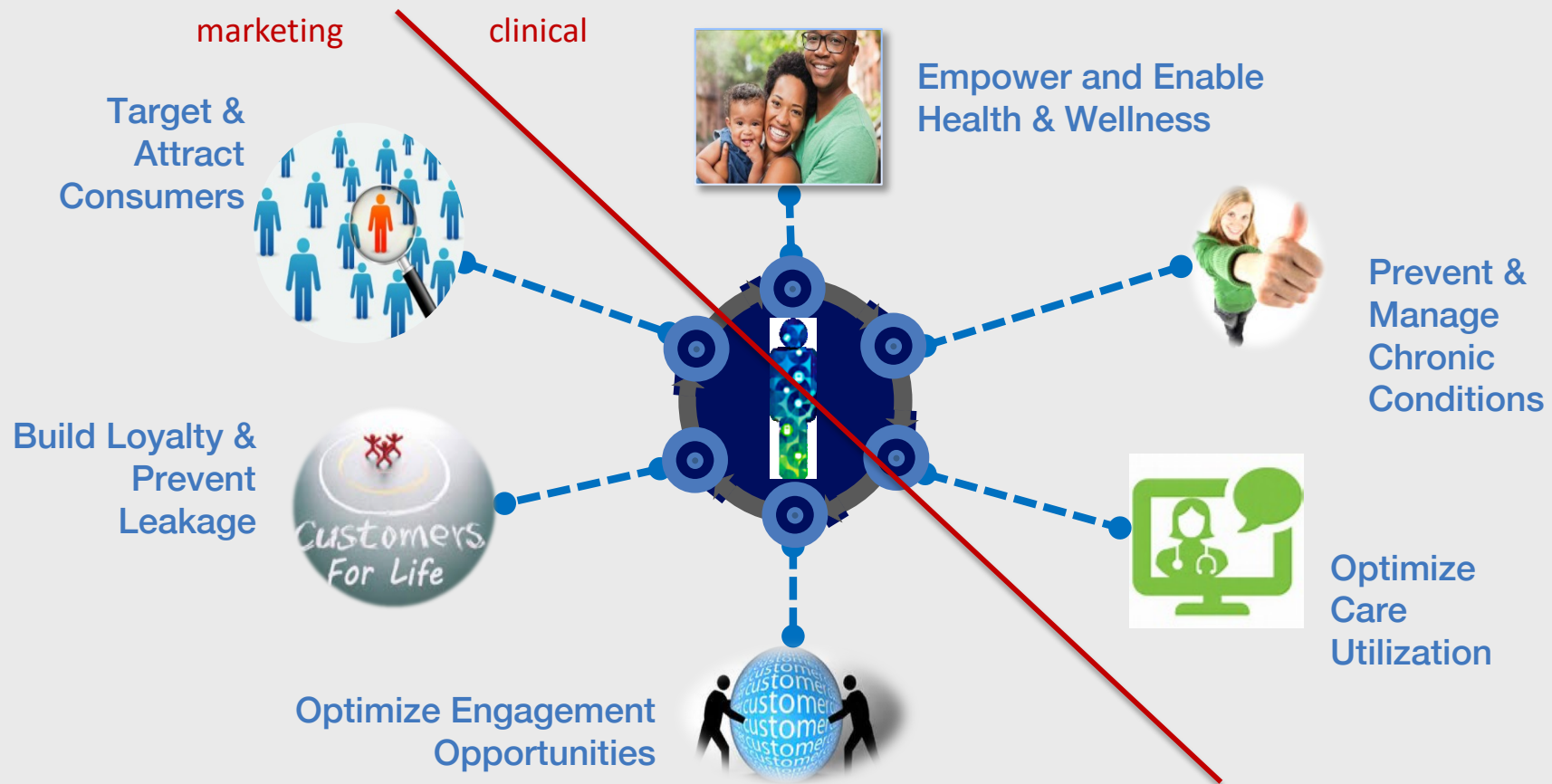
- **Engage in the preferred dialog**
- **Be relevant (“right information”)**
- **Be consistent across touch points**
- **Show sincerity -- “you care”**
- **Give me the information I need**
- **Shared Decision Making**
- **Collaborative Care Planning**

“Empower me”

Innovate to deliver quality, convenience and total experience

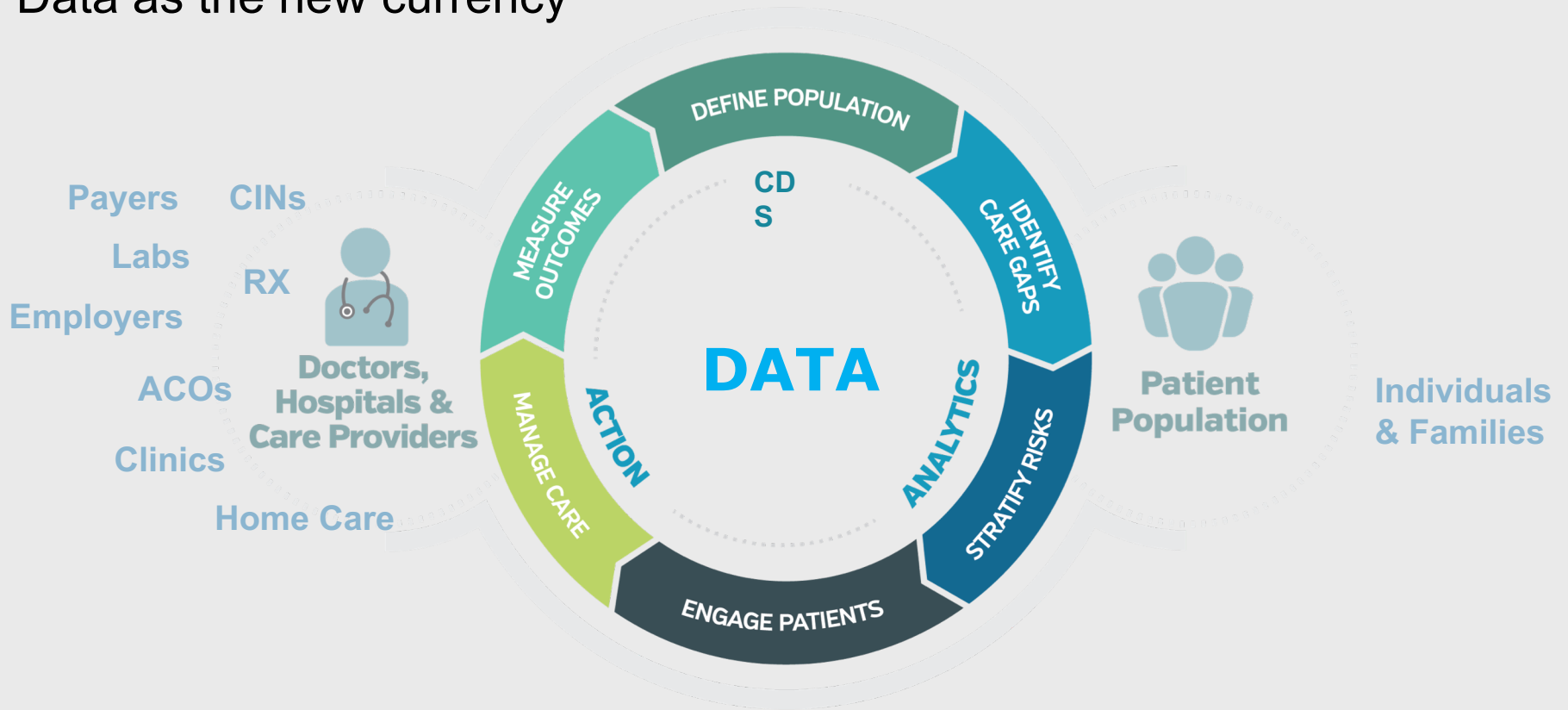
- **Connect me with relevant communities and chronic care networks**
- **Demystify; simplify control and access**
- **Enable action and convenience**
- **Provide transparency in both clinical and financial**
- **Promote home care and telehealth**

Why Engagement Matters



5. COGNITIVE COMPUTING

Data as the new currency

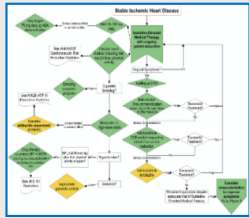


Analytics must span both knowledge & data-driven methods

Medical Literature



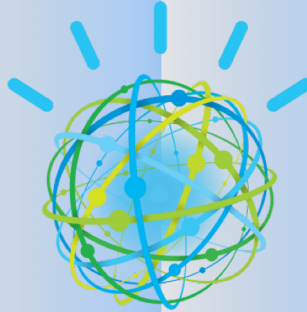
Guidelines



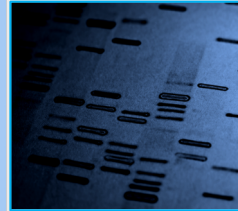
Institutional Knowledge



IBM Watson Health



Exogenous data – 60%



Genomics data – 30%



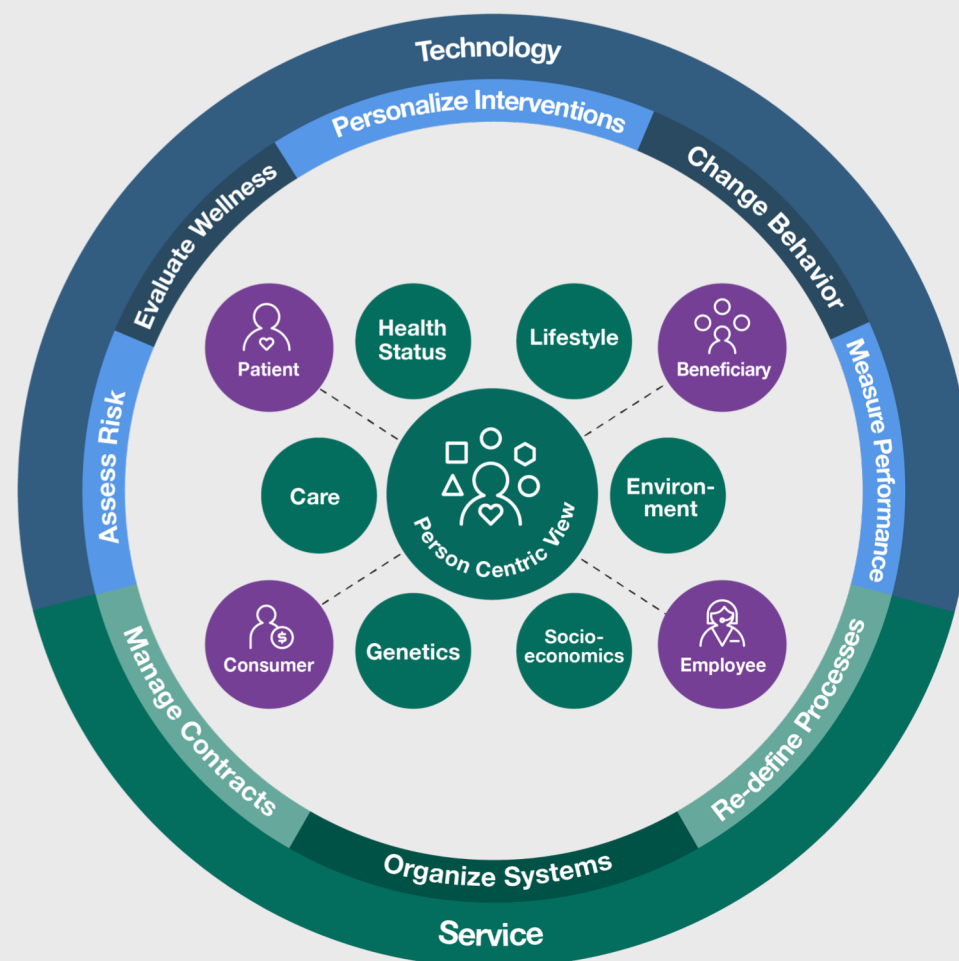
Clinical data – 10 %



Vision

Better health, managed costs,
and best patient and provider experience
(*Quadruple Aim*)
enabled through data analytics and
cognitive insights

- A comprehensive view of the individual and population - using clinical, social and other key determinants of health
- Personalized care at scale - engaging patients as individuals without compromising efficiency
- Population Health Management - providing insights to manage health/wellness and care for an individual and across a population



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**The future ain't what it
used to be.**

Yogi Berra

Thanks!

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