Smarter Healthcare:
An Industry Perspective

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The healthcare industry is facing challenges and opportunities

Empowered consumers expect better value, quality, and outcomes

Legislation, standards, and compliance continue to reshape the marketplace

Incidence and cost of chronic and infectious diseases are increasing

Global Healthcare Landscape

Primary Care and Nursing shortages demand workforce restructuring

Health care is shifting from local to national and global contexts

Changing demographics and lifestyles affect costs, care, engagement and partnerships

New market entrants and new approaches to health and care delivery create opportunities and challenges

Source: IBM HCLS, IBM GBS Institute for Business Value
Transformation of healthcare is driven by demographic, technological and economic forces

Care delivery evolution
Buyers of care expect greater value, improved quality and better outcomes – at a more affordable cost

- 17.6% of U.S. GDP consumed by healthcare spending
- 4X more people over 60 years old that will be unable to care for themselves by 2050

Focus on the individual
Access to unprecedented data enables deeper insight and earlier intervention and engagement

- 2.5 quintillion bytes of data created every day
- 1 billion projected annual health-related apps downloaded by year 2016

Business model convergence
Increasing demand for healthcare and social services is driving the formation of new partnerships

- 1/2 trillion avoidable annual costs by improving medicine adherence
- 9 million of the 36 million deaths attributed to NCDs* that could have largely been prevented

*non-communicable disease
IBM faces the same challenges

**Buyer/Consumer of Healthcare**
- 450,000 lives; $1.6B in investment
- Partner to promote innovation and value

**Change agent**
- Advocate for medical homes and founder of Patient Centered Primary Care Collaboration
- Healthcare standards leadership and participation in Continua, CDISC, DICOM, ISO, OHT and CAQH-CORE
- Influencer to national level reform and eHealth
- IBM Research -- 600+ healthcare patents, systems thinking

**Solution provider across the continuum**
- Intersection of business and technology for Payers / Providers / Life Sciences / Devices
- Business services, process and workflow integration
- Big Data, information management and analytics
- Secure, optimized transaction processing
- Infrastructure build and optimization
Stakeholders are collaborating across boundaries to seize opportunity

Communities of care

Partnerships for Older People Projects (POPPs)

Proactive case coordination across services led to:

47% fewer overnight hospital stays

29% fewer Emergency Department visits
Leaders are taking action

Reducing hospital readmissions by effectively transitioning care plans across providers and evolving care delivery

Accomplished with:
Advanced care insights leveraging written text from discharge instructions

Transforming social program service delivery to enable cross agency collaboration, program coordination and a holistic citizen view

Accomplished with:
Universal eligibility determination and social program mgmt platform

Improved care collaboration across boundaries using big data insights for better care delivery

Accomplished with:
Advanced care, cognitive insight and integrated care management
Watson Story
Leaders are taking action

**UNC Health Care**
Reducing hospital readmissions by effectively transitioning care plans across providers and evolving care delivery

*Accomplished with:*
Advanced care insights leveraging written text from discharge instructions

**Department of Workforce Services**
Transforming social program service delivery to enable cross agency collaboration, program coordination and a holistic citizen view

*Accomplished with:*
Universal eligibility determination and social program mgmt platform

**WellPoint**
Improved care collaboration across boundaries using big data insights for better care delivery

*Accomplished with:*
Advanced care, cognitive insight and integrated care management
Investing to improve health, wellness
And community vitality pays off for business and society

"We might not ordinarily think of healthcare as an economic development tool. In the Rochester area our healthcare costs are about 20% lower than the national average due to health education and wellness programs."
—Danny Wegman, CEO

Healthy people are active contributors – as employees and community members
Demographic trends create pressure for increased citizen productivity
Community and economic vitality are dependent on active and engaged individuals

20% lower cost of care

56% reduction in overall costs of care

City of Rochester, NY

Improved collaboration and innovative partnerships that identified and addressed medical “hotspots” enabled Camden Coalition for Healthcare Providers to reduce overall costs of care by 56%.

Camden Coalition of Healthcare Providers
Rochester Story
Leveraging rich new and existing
Data sources and technology advancements in care management

90% of the world’s data was generated in just the last 2 years

31.7% Expected compound annual growth rate in the big data market by 2016*

New and numerous data sources
Transactional, application, mobile, social, care provider, publications, research, and individual information

Analytics innovations
Advanced analytics like IBM Watson apply reasoning, and complement tools that surface patterns and anomalies

New platforms
Collaborative and mobile technology platforms enable a holistic view of the individual and enable new ways to coordinate care delivery

Capturing and using data enables new insights into populations and individualized care
Applying new insights from social and clinical analysis

To inform care protocols and drive better outcomes

Segment populations by risk profiles

- Healthy low risk
- At risk
- High risk
- Early clinical symptoms
- Active disease

Inform care approaches with evidence

**Prevention**
Educate and engage to change attitudes and behaviors to prevent the onset of health issues

**Early intervention**
Promote routine screening and healthy lifestyles to defer disease onset and manage risk

**Care Management**
Deliver the right care services to support the individual with the right programs and treatments to improve quality of life and optimize resource use
New business and financial models are developing

Leverage interdependencies between health and social care systems with focus on the individual to evolve care delivery and achieve improved outcomes.

Harness care-related data and insights to uncover new business opportunities and compete in the converging environment.

Communities of care

Drive behavior change among individuals, care providers and stakeholders.

Improving access to nutritious food for long-term health

How?
- Extending collaborative partnerships for service delivery
- Expanding outreach for health and educational services

Resulting in:
- Social and economic revitalization – business development, jobs, training and housing
- Reduced overhead through shared facilities and equipment
Leaders are uniting to support

*The new drivers of quality healthcare*

**INTERVENTION**
Identify and influence individuals and populations, and recognize intervention opportunities

**LEARNING**
Apply new insights from interactions and outcomes to enable continuous transformation

**KNOWLEDGE**
Drive evidence-based and standardized care planning

**COORDINATION**
Deliver care and monitor progress across clinical and social requirements

**COLLABORATION**
Assess and engage individuals and stakeholders to drive individualized care plans
Thank You