A Precision Medicine Patient Journey & the impacts of that on our Health Systems!

Dave Bennett, Vice President and Worldwide Head of Build, Healthcare & Life Sciences
Industry drivers, business and technology priorities

The healthcare industry is in an era of change due to evolving economic, health, and technology drivers resulting in a paradigm shift in service delivery.

1. **Industry Drivers**
   - Increase in aging population
   - Surge in reforms to tackle spiralling healthcare costs
   - Rise of consumerism
   - Proliferation of chronic diseases
   - Access to ubiquitous information
   - Digital citizenship of consumers
   - **Precision Medicine**

2. **Business Priorities?**
   - Establish integrated care models
   - Control cost & operational efficiency
   - Enhance patient experience and engagement
   - Use evidence based clinical pathways
   - Develop stronger governance and data infrastructure
   - Respond to complex regulations

3. **Technology Priorities?**
   - Digitalization of patient experience
   - Care delivery and coordination IT
   - Systems for new care models and RWD
   - Automated and agile operations
   - Enterprise analytics and cybersecurity
   - Administrative and system integration
From RWD to RWE

Real World Data

- Electronic Medical Record
- Patient Reported Outcome
- Social Media
- Claims
- Health Monitoring device
- Mobile Health
- Registries
- Lab Results
- Pharmacy Data
- Surveys
- Genetic tests & biomarkers
- Medical Imaging

Data Anonymization
Data Integration
Data Normalization
Data Enrichment
Data Management
Data Visualization

Real-World Evidence
Evidence generated from the curation of Real World Data. This data is used at all stages of the drug or medical device lifecycle for all stakeholders of the Healthcare ecosystem (patient, providers, payers, manufacturers, and regulators)
Healthcare & Life Sciences
Hero's

SOFTWARE AS A DRUG
Precise Medicine
ARTIFICIAL INTELLIGENCE
CLOUD COMPUTING
PATIENT RECORD
DATA ANALYSIS
QUALITY STANDARDS
Population Health Analytics
Post-Acute Alignment
Customer Support
Medical Home Infrastructure

DXC Proprietary and Confidential
June 28, 2019
Clients are attempting digital transformations...

Pivots in Mainstream IT

Trusted, Global Footprint

Industry & Client Centric Digital Value Creation

Agile delivery

Digital transformations

Mainstream IT modernization

Embed Automation capabilities

Ability to manage & simplify legacy

+ Global Partner Network

...While separately modernizing mainstream IT
Speed is critical

Real-time information from enterprise-wide systems that:

► Provides healthcare organizations with a clinical surveillance tool to optimize clinical performance by providing real-time information for clinical management and interventions on high-risk patients

► Analytics to track performance and discover correlation between clinical outcomes and cost

► Meets compliance requirements

Deliver better patient care and outcomes when it matters most

Identify high risk patients early, reduce readmissions, and proactively manage care delivery

Right Now

Safer & Best Care.

Better Outcomes.
Precision Medicine Patient Journey
Precision Medicine is Here! *Game changer for many*
Orphan & Specialty Drugs - 50% of the market by 2020
Questions we need to answer as a system:

How will Standards of Care be impacted by Precision Medicine?

What will funders or plans do to support high cost therapies both digital and precise?

How will LifeSciences take more risks in supporting high cost specialty drugs?
New Patterns of Platforms
Digital Health Platform Considerations
New platforms to support much more Agile IT

Systems of Engagement
- PROM based on standard ICHOM set

Systems of Insight
- Care pathway clinical data
  - Vital signs, biometrics
  - Medical/surgical history
  - Laboratory results
  - Implantable devices
  - Patient-reported outcomes
  - Inpatient drugs and ambulatory prescriptions
  - Outpatient prescription fills
  - Claims data

Systems of Records
- Federated Data Sources
  - EMR, Lab, IoT, Pharmacy, Departmental systems
  - Hospital and Community systems
  - ...
A Market view of Genomics Platforms

- **Diagnostic**
  - **Addressable Market**
    - Genomics diagnostic platform vendors
    - Large HC providers
    - Life Sciences

- **Research**
  - **Addressable Market**
    - Academic Care research
    - Life Sciences

- **Clinical**
  - **Addressable Market**
    - International Providers
    - Clinic Genomic Centers – insource outsource questions
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Examples of RWE “use cases” along the drug lifecycle

**Research/Discovery**
- Disease insights
- Identify unmet needs

**Pre- & Clinical Development**
- Clinical Trials
  - Protocol optimization
  - CT design & feasibility (geo, disease area,...)
  - Patient recruitment

**Regulatory & Market Access**
- Market Authorization and Access
  - Accelerate regulatory approval (FDA, EMA)
  - Label extensions
  - Pricing model strategy
  - Post approval regulatory (outcome research)

**Commercialization**
- Launch & Post-marketing
  - Risk & benefits analysis
  - Precision medicine
  - Patient adherence
  - Competitive intelligence
  - Improve interactions with HCP & patient
  - Identify new indications & licensing opportunities
Leveraging a standardized data model like FHIR creates more consistent output.

Considerations

1. Differences in source data leads to differences in results.
2. Different data sets have different advantages and disadvantages.
3. Purpose of the individual data sets is important.
4. Identifying data in source systems can be challenging.

Ultimately, there is no standard across data sets.
## DXC in Healthcare and Life Sciences Facts

Market leader in clinical and business transformation, population health management, claims management, regulatory transformation and national healthcare programs.

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<tr>
<th><strong>50+</strong></th>
<th>Delivering healthcare and life sciences software and services</th>
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<td><strong>YEARS OF SERVICE</strong></td>
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<tr>
<th><strong>15K</strong></th>
<th>Dedicated to supporting health and life sciences clients worldwide</th>
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<td><strong>IT PROFESSIONALS</strong></td>
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<tr>
<th><strong>1M+</strong></th>
<th>Of software and integrated systems</th>
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<td><strong>SOFTWARE USERS</strong></td>
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<th><strong>6 of 10</strong></th>
<th>Top 10 Global Fortune 500 healthcare companies are clients</th>
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<td><strong>TOP 10 FORTUNE 500 HEALTHCARE</strong></td>
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<th><strong>1.3B</strong></th>
<th>Healthcare claims processed annually</th>
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<td><strong>ANNUAL CLAIMS</strong></td>
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<th><strong>&gt;100</strong></th>
<th>Electronic medical records maintained</th>
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<td><strong>MILLION RECORDS</strong></td>
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<th><strong>630M</strong></th>
<th>Processed annually</th>
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<td><strong>MEDICAID CLAIMS</strong></td>
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<tr>
<th><strong>#1</strong></th>
<th>Of Medicaid process management services, touching 48M lives</th>
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<td><strong>PROVIDER</strong></td>
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<th><strong>84%+</strong></th>
<th>Use regulatory transformation solutions</th>
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<td><strong>TOP 50 GLOBAL PHARMA COMPANIES</strong></td>
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<th><strong>650%</strong></th>
<th>In clinician case load capacity with Health360 and Public Health solutions</th>
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<td><strong>INCREASE</strong></td>
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<th><strong>100%</strong></th>
<th>Top 250 U.S. Fortune 500 Pharma companies are clients</th>
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Thank you.