Healthcare Transformation
2016 ACO Summit
Charlie Lougheed
President & Cofounder, Explorys, an IBM Company
charlrielougheed@us.ibm.com
A Frightening Journey For Healthcare Systems…

**Value Capable + Risk Capable + Margin Capable**

**Fee-for-service**
- Reduced ER visits
- Reduce re-admissions
- Reduce admissions
- Reduced specialty visits
- Reduced procedures /1000

**Value-based**
- Capitated risk
- Gainshare contracting
- Care coordination/Patient engagement
- Patient Care Medical Home/Primary Care Physician engagement
- Electronic Medical Record/Central Data Repository
- Grow marketshare
- Improve margin

Revenue
$765 Billion
In Avoidable Costs

Source: Kaiser Family Fund
High Deductible Health Plans on the Rise...
Healthcare Data is the baddest of Big Data...

☑ Volume
☑ Velocity
☑ Variety
☑ Veracity
Genomics data
30% of data
6 TB generated per lifetime

Clinical & claims data
10% of data
0.4 TB generated per lifetime

Exogenous data
(Behavioral, socioeconomic environmental / weather, behaviors, habits, family history, education, living situation, access, satisfaction)
60% of data
1100 TB generated per lifetime

Copyright IBM, 2016
Hello, my name is Watson
The Growth of Watson Health

IBM Steps Up to the Challenge of Transformation

Truven Health Analytics, implementing and maintaining SSAE 16 certified data aggregation, provides warehousing and analytic services on 4 Petabytes of data impacting decisions for 1 in 3 Americans.

The Weather Channel, generating differentiating insights from proprietary Weather Company models and air quality and pollen data, receives 26 billion daily requests from a growing mobile device network of 40 million current users.

Merge Healthcare, bringing 30 billion processed images from 7,500 facilities in the United States, helps imaging-intensive provider specialists reduce cost, increase efficiency, and improve quality.

Phytel, enabling the delivery of a ‘Best-in-KLAS’ suite of population health management tools, leverages evidence-based chronic and preventive care protocols that address the entire spectrum of timely, coordinated, and provider-led care directly to your members.

Exployrs, housing the most powerful clinical and claims dataset in the world, applies powerful analytics to a broad range of clinical data to drive provider-led solutions for population health management, value-based care delivery, and benchmarking across 55 million patients.
## Benchmark Network

Net-New Knowledge Through a Learning Network

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unique Lives</td>
<td>55 Million</td>
</tr>
<tr>
<td>U.S. Population</td>
<td>15%</td>
</tr>
<tr>
<td>Healthcare Networks</td>
<td>28</td>
</tr>
<tr>
<td>Providers</td>
<td>317 Thousand</td>
</tr>
<tr>
<td>Hospitals</td>
<td>360</td>
</tr>
<tr>
<td>Longitudinal Data Points</td>
<td>315 Billion</td>
</tr>
<tr>
<td>Live Connectors</td>
<td>4,000+</td>
</tr>
<tr>
<td>Combined Cost of Care</td>
<td>$69 Billion</td>
</tr>
<tr>
<td>Pre-Built Analytics</td>
<td>1,000+</td>
</tr>
</tbody>
</table>

Copyright IBM, 2016
Understands Natural Language

Watson can read and understand millions and millions of documents.

- Medical Texts
- Evidence-Based Guidelines
- Peer-reviewed Articles
- Clinical records

Generates and Evaluates

Watson searches, extracts candidate recommendations scores and ranks decisions

Learns and Adapts

Decisions being made by leading Physicians feed the engine

Watson and Me

Understands and engages me
Learns and improves over time
Helps me discover
Establishes trust
Has endless capacity for insight
Operates in a timely fashion
"Healthcare and the economy are in the midst of historical realignments. Organizations that leverage their clinical data to improve care, speed innovation, and reduce delivery costs will shape the future of medicine."

Toby Cosgrove, MD
President and CEO
Cleveland Clinic