Transformed Healthcare organizations rely on data to:

1. Establish analytics as a core competency
2. Deliver best practice care
3. Engage patients and collaborate across the ecosystem to foster strong, actionable relationships

Improvements in care and operational efficiencies will be realized when healthcare data, from every source, is leveraged.

For example:

Healthcare data quality is concerning for 2 reasons:

1. Human Error:
   - Improvements in care and operational efficiencies will be realized when healthcare data, from every source, is leveraged. Clean, safe and connected data is required for confident decision making.

2. Data Fragmentation:
   - Even if we achieve perfect data accuracy; even if we achieve data completeness by eliminating data fragmentation, we could still fall short of data quality.

Data needs to be clean and connected:

1 Human Error:
2 Data Fragmentation:
3) Engage patients and collaborate across the ecosystem to foster strong, actionable relationships
2) Deliver best practice care
1) Establish analytics as a core competency

Moving to a value-driven model demands agility from people, processes, and technology. Organizations that succeed in this transformation will be those that leverage data to:

- Be safe:
  - Trustworthy insights and patterns of behavior.
  - Manage risk.
  - Protect patients from fraud.

- Support population health:
  - Identify high-risk patients.
  - Identify trends.
  - Support coordinated care.

- Increase engagement:
  - Get patients to engage.
  - Leverage patients as a care management tool.
  - Leverage patients for education.

- Deliver best practice care:
  - Improve diagnosis.
  - Improve outcomes.

- Build analytics as a core competency:
  - Build a culture of analytics.
  - Expand the data.
  - Build the competencies.

Data needs to be safe:

- HIPAA, HITECH, and other regulations require that healthcare data be secure. It must also be protected against unauthorized access.

Data needs to be the ‘right’ data:

- Data that is meaningful and relevant to the organization’s needs.
- Data that is comprehensive and complete.
- Data that is actionable.

Data needs to be accessible:

- Data that is timely and available when and where it is needed.
- Data that is portable and sharable.
- Data that is secure.

Data needs to be the right format:

- Data that is in a format that can be used by the intended recipient.
- Data that is in a format that can be integrated with existing systems.

Data needs to be clean and connected:

Healthcare data quality is concerning for 2 reasons:

1. Human Error:
   - In the healthcare realm, 70% of data is estimated to be incorrect; 50% of data is estimated to be invalid.
   - Accurate data is estimated to save $30 billion a year while improving care.
   - Only 10% of hospitals implemented data analytics tools in 2011, 3% are planning to do so in 2013.

2. Data Fragmentation:
   - In the healthcare realm, 90% of hospitals use 6 or more types of devices that integrate only 3 types of devices.
   - Yet only a third of hospitals integrate any medical device with EHRs, and those that do usually integrate only 1 type of data.
   - The largest children’s hospital in the US is leveraged.
   - Improvements in care and operational efficiencies will be realized when healthcare data, from every source, is leveraged.
   - Clean, safe and connected data is required for confident decision making.

This is where data infrastructure comes in:

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