Through the VHA, we have helped over 211 partners (representing 2,000 hospitals and 32,000 clinics) to improve data fidelity and interoperability.

Our proven success with stakeholder outreach for Continuous Quality Improvement (CQI) projects has brought us national recognition.

J P Systems is recognized by the Sequoia project and ONC as a leading U.S. Thought Leader in Clinical Data Quality surveillance and improvement.
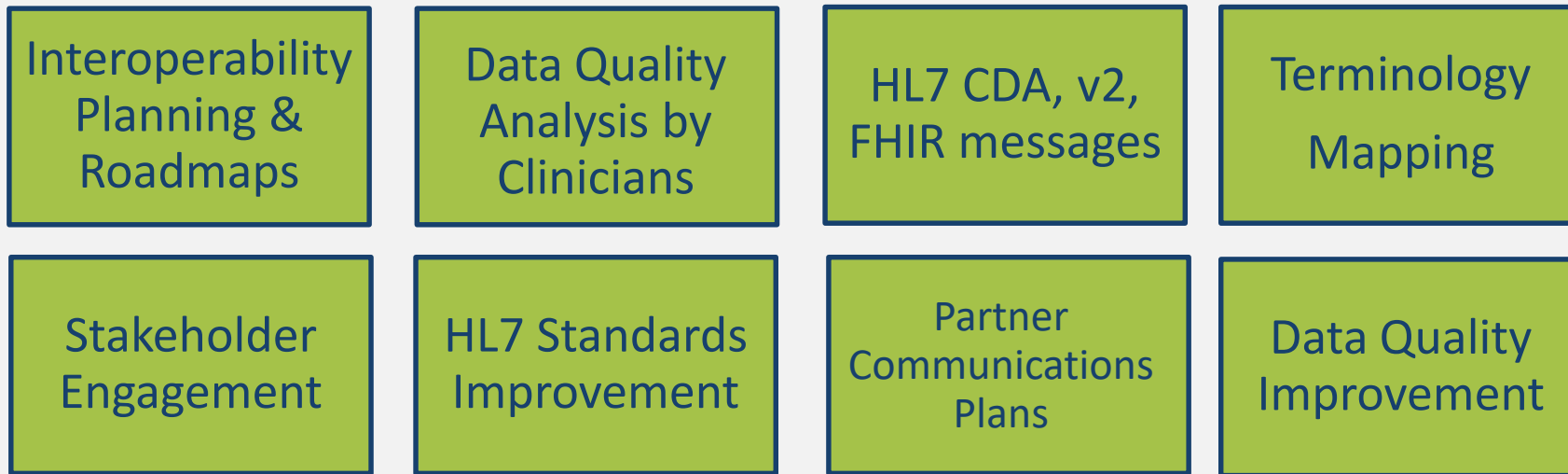
An orchestra tunes itself to a very particular frequency, usually 440 hertz, a note known as A 440. The note is played by the oboist, and the rest of the orchestra tunes their instruments to match it.

JPSYS cleans and tunes your data to international interoperability

Our Data Quality teams are comprised of: Pharmacists, Nurses, Terminologists, Data Standards experts, Data Architects, IT and Business Analysts and Interoperability experts.

Interoperability Planning & Roadmaps	Data Quality Analysis by Clinicians	HL7 CDA, v2, FHIR messages	Terminology Mapping
Stakeholder Engagement	HL7 Standards Improvement	Partner Communications Plans	Data Quality Improvement

Focus on Data Quality

Questions we will answer:

- **What is a CDA file?**

- **How do we improve Data Quality?**

- **Why is DQ so vital?**

- **How can data quality improve patient care?**

- **How does data quality support patient safety?**

- **How can you improve clinical workflows?**

# WHAT IS A CDA FILE?
HL7's Clinical Document Architecture

CDA is a data standard for documents designed for the exchange of clinical data. They are composed according to a international standard created by HL7, an international data exchange organization

CDA files are coded in Extensible Markup Language (XML)

Sample CDA File:

A Cerner 'Transition of Care Referral Summary'

The XML points to a specific terminology, in this case a CDC REC code system for race.
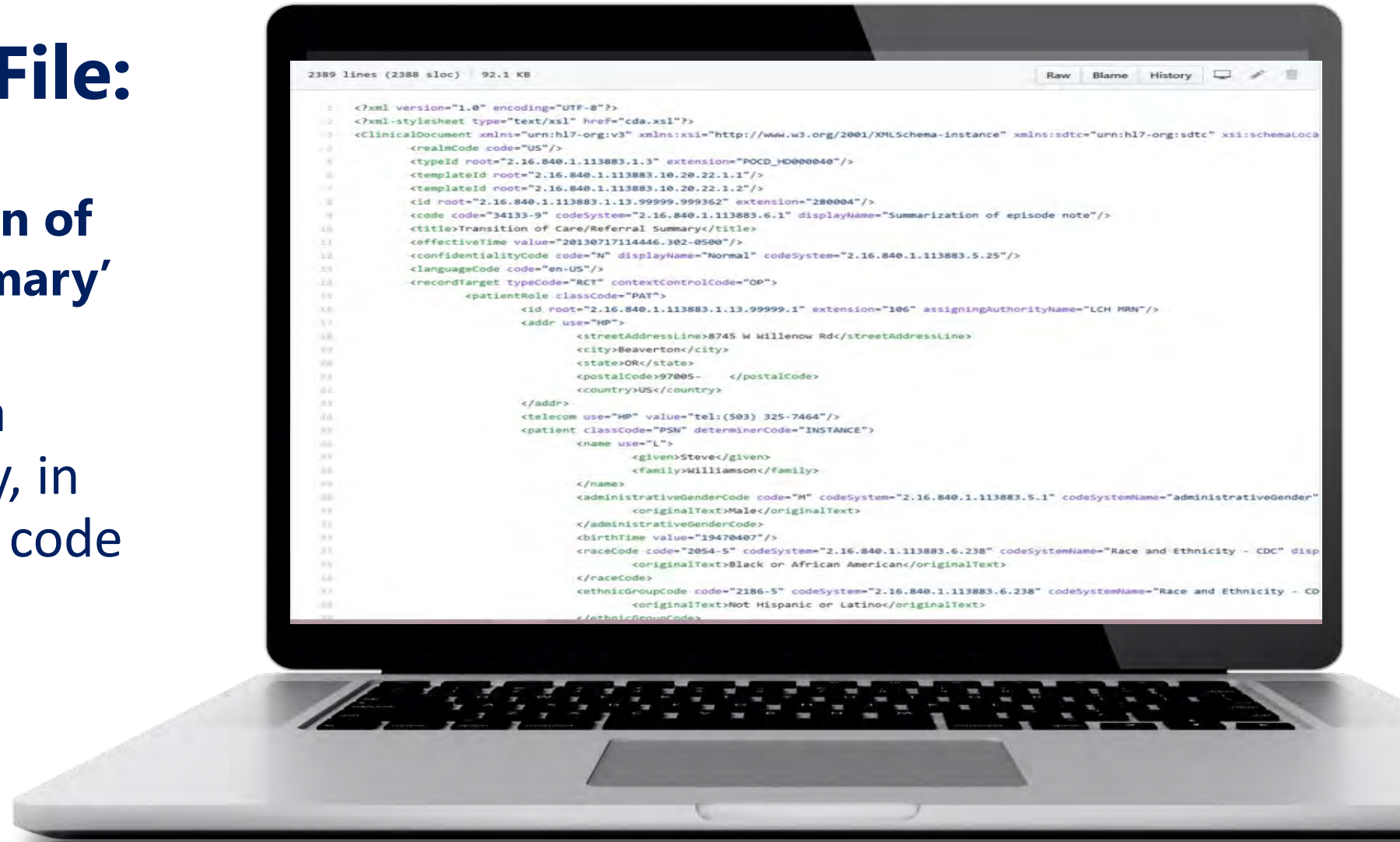
Line 34

```
<raceCode code="2054-5" codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race and Ethnicity - CDC" disp
        <originalText>Black or African American</originalText>
</raceCode>
```

HOW WE IMPROVE DATA QUALITY AND CLINICAL WORKFLOWS

Our DQ Process

1. Obtain statistically significant sample of data files
2. Identify current sources of hindrances to data quality
3. Conduct data reviews of internal and external partner data sources
4. Provide clients a list of tools to use and likely problem sources, such as a particular workflow source, a configuration problem or a vendor app problem

HOW WE IMPROVE DATA QUALITY AND CLINICAL WORKFLOWS

Our DQ Process

5. Host virtual trouble shooting sessions with de-identified data, so you can trace problems

6. Examine the CDA fields to see if contents are in the right place.

7. Verify CDA contents are compliant with HL7 using proprietary tooling

8. Verify correct terminologies are used

9. Identify and add new standard terminologies for clarity

Automated Tooling

- We have extensive experience using Model Driven Health Tools, (MDHT), for CCD CDA analytic review and creation of summary clinical domain spreadsheets

- We use proprietary tooling to perform domain level analysis. We are adept at loading and reviewing thousands of patient CDA documents

WHY IS DATA QUALITY SO VITAL?

- Creates a trusted relationship between clinician and the data
- Reduces clinician burnout
- Allows healthcare enterprise applications to function optimally
- Patient Safety risks are minimized, duplicate services are reduced, costs are avoided
- Better patient outcomes and customer satisfaction

OUR DATA QUALITY SERVICES FOR CDA FILES

Search for the 3 M's:

- **Missing Data**
- **Misplaced Data**
- **Miscoded Data**

Your DQ Scorecard

- We evaluate your current data, create a scorecard for various domains

- We meet with you to make recommendations for improvements

- Once improvements are made, we rescore the data and provide a second report

- We review your second set of changes with you and map out your next steps

The need for Interoperability is always increasing:

1. <u>ONC's Trusted Exchange Framework</u> is built on a foundation of data quality assumptions

2. The <u>Qualified Health Information Networks</u>, QHINs, will have to meet certain qualifications under ONC's TEFCA

3. <u>USCDI, US Core Data for Interoperability</u> has standardized code sets and a standards harmonization process

4. Builds a more complete and accurate patient record, which can lead to better care coordination, improved patient safety and improved population health reporting

5. Data analytics and research is more accurate as the data becomes more reliable

WHY IS DATA QUALITY SO VITAL?

HOW CAN DATA QUALITY IMPROVE PATIENT CARE?

The Three R's – Relevance, Robustness and Repercussions

Relevant
Data utilized in entire enterprise. Clinicians need holistic data view

Robust
Standardized data lowers risk of ingestion problems

Repercussions
Patient Safety risks, sentinel events, duplication of services

HOW CAN DATA QUALITY IMPROVE PATIENT SAFETY?

Reliable, interoperable data reduces the risk of bad outcomes through accurate diagnoses and subsequent treatments

HOW CAN YOU IMPROVE CLINICAL WORKFLOWS?

1. When terminologies are used correctly and data is reliable, AI is empowered to reason over the data and reach useful conclusions.

2. AI can analyze treatment plans to help balance nursing work loads and many other cost saving measures.

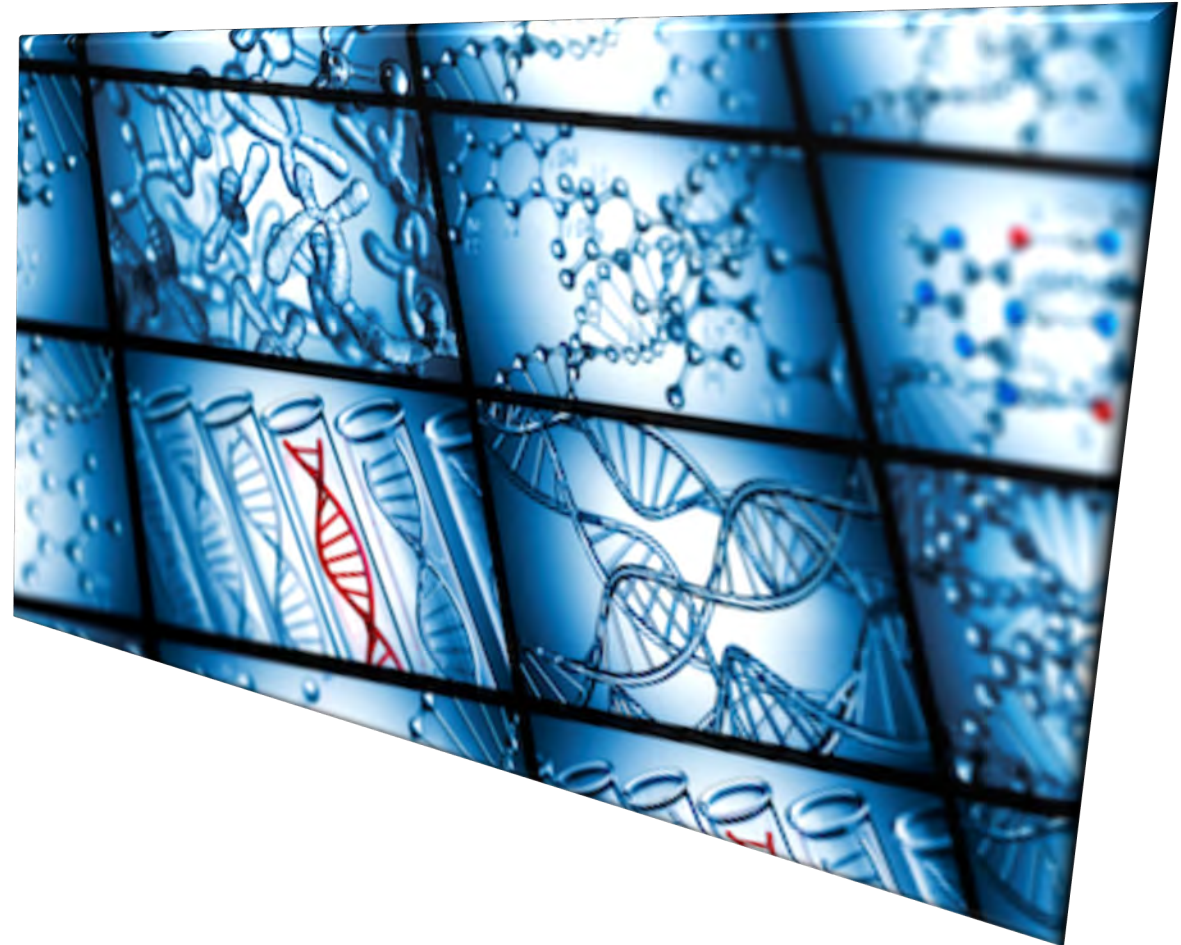3. Data Quality is a bridge to using AI effectively.

HOW CAN YOU REDUCE RISK TO WORK FLOWS?

How does risk enter?

1. For providers, risk comes in during transitions of care
2. It is the same for data, risks come in when it is transmitted

Interoperable data reduces risks encountered during ingestion into another system!

Other DQDoc.com Services

Standardized Clinical Terminologies: Creation and maintenance of clinical reference terminologies

Improved Patient Safety: Better data results in improved care coordination between providers and decreased readmissions

Clinical Terminology Mapping: Match local terms to international clinical data standards to enable data exchanges with precise meanings

HL7 Standards Development: We can establish a new international standard for you or improve an existing one. We voice our clients' needs through the HL7 ballot process
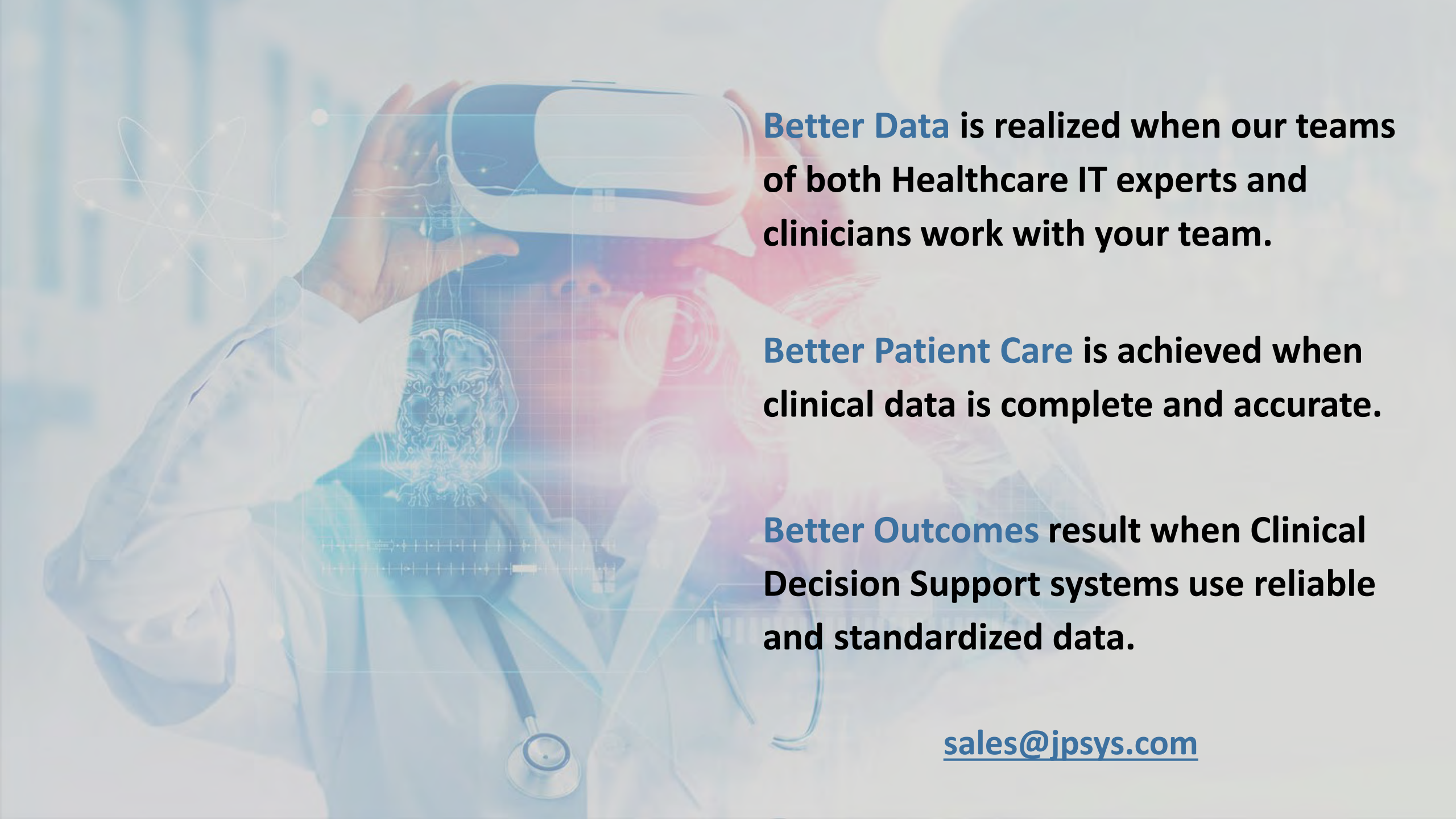
HL7 FHIR® Information Exchange: FHIR® has its own standardized vocabulary for information exchange. We can map your vocabulary to FHIR®'s vocabulary.

Better Data is realized when our teams of both Healthcare IT experts and clinicians work with your team.

Better Patient Care is achieved when clinical data is complete and accurate.

Better Outcomes result when Clinical Decision Support systems use reliable and standardized data.

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CONTACT US

Successful Healthcare IT services require both technical and clinical subject matter experts. J P Systems is your best choice for the complexities of clinical data quality improvement.

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