



CodeX™: Leading Patient Care Standardization and Research

Achieving Interoperability for Health Data Requires Industry-Wide Adoption of Standards

Data standards are the foundation for rapid, consistent, and reliable data whether browsing the Web or withdrawing money from an ATM. The potential benefits of health data standards are even greater and especially in patient care and research.

Electronic health record (EHR) data should be leveraged to enable the one-time collection of data points and ability to share the data across systems—by patients, clinicians, payers, and other stakeholders—to improve patient care. Every interaction between a clinician and a patient is an opportunity to capture data that could be used to improve care for that patient, and to inform improvements to the workflow.

mCODE and CodeX – Transforming Cancer Care Standards and Interoperability

[mCODE \(minimal Common Oncology Data Elements\)](#), and open standard language for cancer data, was established as a minimum data set in cancer care as a first step to addressing the barriers to data exchange in oncology. mCODE became a Health Level Seven (HL7) standard in March 2020. HL7 launched the [CodeX](#) FHIR Accelerator program in late 2019 to build a community focused on [mCODE implementation](#) to address high-value use cases, defining how the industry accesses and shares patient information in a complex healthcare system.

A common thread in most CodeX work is collection of patient data once via mCODE (typically in an Electronic Health Records (EHR) system) and reusing this mCODE-based data for many use cases. Increasing the interoperability of EHR data allows stakeholders, such as clinicians and researchers, to analyze real-world data from millions of cancer patients—rather than just the limited data from clinical trials—to make critical decisions. Access to data on diverse patient cohorts is critical to **informed treatment decisions** between clinicians and patients, **new research**, including **drug development**, **support guidelines** and **decision support tools** for clinical use, and **health insurance coverage decisions**.

People's lives are depending on what we do and what this data tells us.

DR. MONICA BERTAGNOLLI

Surgeon at Dana Farber/Brigham and Women's Cancer Center, Professor of Surgery at Harvard Medical School, and Past President of the American Society of Clinical Oncology (ASCO).

A Community of Stakeholders with Real-World Impact and Sites on New Clinical Domains

CodeX is a member-driven HL7 FHIR Accelerator hosting a growing community working together to enable FHIR-based interoperability that drives substantial improvements around the most important challenges and opportunities in patient health. Due to early success in oncology, the CodeX community began exploring how to leverage the CodeX/mCODE experience within two potential new domains: Cardiovascular and Genomics. This HL7 CodeX FHIR Accelerator community of stakeholders is working together to:

- Identify use cases that promise to substantially improve cancer care and research
- Leverage mCODE FHIR Implementation Guide (IG) meet base requirements of use cases
- Create supplemental IGs meet additional requirements

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- Implement IGs in software and to address support workflows
 - Design pilots that demonstrate the “art of the possible” and inspire scaling

Today CodeX has [ten active use case projects](#): five are in the **Execution** Phase – mCODE++ Extraction, ICAREdata, Trial Matching, Registry Reporting, and Radiation Therapy. Prior Authorization is in **Planning**. CardX – Hypertension Management, GenomeX – FHIR Genomics Data Exchange, GenomeX - Enabling Access to Complex Genomic Information through FHIR Genomics Operations and Risk Evaluation and Mitigation Strategies (REMS) are in **Discovery**.

CodeX also hosts the [mCODE Community of Practice](#): a vibrant community of health systems and others working together to develop best practices for implementing mCODE into production EHRs.

Join Us and Lead the Quest for Smarter Data

Paying, Government Agency and Sponsored CodeX Members reflect the diverse perspectives required to drive community-led, impactful cancer care standards. We are actively seeking leaders across all stakeholder groups who want to work together to improve cancer care. CodeX Members have the following privileges:

- A seat on the **Operating Committee** and may run for the decision-making **Steering Committee**
- Serve on **Use Case Leadership Teams**, where CodeX Members are responsible for developing project plans, engaging partners and overseeing work, including:
 - Transforming domain knowledge to FHIR-based models, implementing these within software and piloting to demonstrate the art of the possible
 - Achieving success alongside other Members and their leaders from world-leading health systems, vendors, payers, agencies and associations
- May (depending on membership level) **Sponsor other Organizations** to become CodeX Members
- Achieve objectives agilely, working with the support of CodeX **Program Management** and **Technical Support**

The CodeX community is **learning** together and gaining **early access** to and achieving **deeper understanding** of implementation of FHIR, mCODE and extensions.

For more information on how to join, please contact Steve Bratt, sbratt@mitre.org, or Kim Ball, kim.ball@pocp.com.