CodeX™ HL7 FHIR® Accelerator:
Community-Driven Adoption of Smarter Data in Advancing Interoperability for Cancer, Genomics, and Cardiovascular Health
April 2023

https://www.hl7.org/codex/
https://confluence.hl7.org/display/COD/CodeX+Home

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Better Data
Better Health

The CodeX community is singularly focused on bringing standards to healthcare data so patients have the care and research journey they deserve and should expect.

https://codex.hl7.org/
Alignment With US Federal Rules
Create Foundation for FHIR® Health Data Exchange

United States Core Interoperability Data (USCDI)
- Standardized set of health data classes and constituent data elements
- Established for nationwide, interoperable health information exchange

Interoperability Rule – FHIR® Conformance
- Industry must share health data with patients
- Shared using the HL7 FHIR R4 standard
- FHIR API standards are required in certified EHRs

Interoperability Rule – FHIR® Transmissions
- Create patient access APIs (claims, encounter, & select clinical data)
- Support payer to payer data exchange
- Support transition-of-care related notifications

USCDIv3:
- Date of Death, Functional Status, Disability Status
USCDI Level 1 & Comment: Genomics Elements, etc.
*Above elements: CodeX supported

ONC API: Dec 2022

CMS Patient Access API: Jan 2021
CMS Payer-to-Payer Exchange: Jan 2022

Patients can access and manage health data to optimize health

Providers and payers can improve care coordination and care transitions

CodeX (mCODE ++):
- Align with and build on FHIR-based rule implementation
- Provide rich data to improve care, research, and outcomes
What is a FHIR® Accelerator?
“...designed to assist communities .. across the global health care spectrum in the creation and adoption of high quality FHIR Implementation Guides .. to move toward the realization of global health data interoperability”

https://www.hl7.org/about/fhir-accelerator/

HL7 FHIR® Accelerators
Minimal Common Oncology Data Elements

A growing, active community of oncology stakeholders prioritizing, building & executing use case pilots to demonstrate real world feasibility and value

Collect patient data once.

Reuse for multiple use cases.

mCODE STU2: http://hl7.org/fhir/us/mcode/
**CodeX™ Community of Practice**

[https://confluence.hl7.org/display/COD/mCODE+Community+of+Practice](https://confluence.hl7.org/display/COD/mCODE+Community+of+Practice)

A growing group of health systems and other key stakeholders, learning together in a monthly public forum focused on real-world applications of CodeX FHIR® standards across cancer, radiation oncology, cardiovascular health, and genomics.

Latest developments on mCODE, CodeX, and cancer data exchange

Ask questions and learn from the experience of other community participants

Develop and share best practices for clinical workflows, data modeling, and exchange

- **70** Health Systems
- **111** EHRs and other tech companies
- **16** Research Organizations
- **6** Payers
- **20** Medical Societies and Consortia
- **11** Pharma
- **16** Government Agencies
- **4** Nonprofits/Foundations
- **4** Patient Advocacy Organizations
CodeX Members
(April 2023)

PREMIER

ALLIANCE OF CLINICAL TRIAL OUTCOMES INSTITUTE
AMERICAN ASSOCIATION OF PHYSICIANS IN MEDICINE
AMERICAN SOCIETY FOR RADIATION ONCOLOGY
EVERNORTH HEALTH SERVICES
HL7 INTERNATIONAL
MITRE
ONTADA
Pfizer
SYNTROPY
UNITEDHEALTHCARE

PRINCIPAL

CANCER ACTION NETWORK
Epic
Varian
Medtronic
Telligen
TEMPUS

BENEFACTOR

ASCO
CENTER FOR INTERNATIONAL BLOOD & MARROW TRANSPLANT RESEARCH
CDC
FDA
U.S. FOOD & DRUG ADMINISTRATION
NATIONAL CANCER INSTITUTE
U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES

GOVERNMENT AGENCY

SPONSORED MEMBER

AMGEN
COMP
Canadian Organization of Medical Physicists
OCPP
OCCP
Organisation canadienne des physiciens médicaux

DEVELOPER/IMPLEMENTER

CANCER INSIGHTS
CENTANNI PARK
CITIZEN HEALTH
CITIZEN HEALTH
EDIFEC
Elixir Informatics
GuidelineCentral
INFOWERKS

cdisc
NRG ONCOLOGY
SIIM
PHENOTIPS
PRINCIPIA HEALTH SCIENCES
Quantum Leap Healthcare Collaborative
StudyHealth
UBC
Health Data. Collect Once, Use Everywhere.

CodeX is a global community of healthcare stakeholders currently working on data standards in three domains. We build and implement in the field and on-site.

Cancer

The first domain that the CodeX community tackled is cancer. Using the minimal Common Oncology Data Elements (mCODE), an open data standard enabling high-quality data capture for cancer that can be widely adopted.

70+ oncology elements in use at Dana-Farber Cancer Institute, MD Anderson Center, Massachusetts General Hospital and 44 other institutions. Versions of the mCODE and associated modeling tools are currently operational in over 250 organizations.

See Our Work →

Genomics

This team is advancing the standardization, interoperability, and exchange of genomic data to improve care processes, clinical workflows, and patient outcomes from all areas of clinical care.

Cardiovascular Health

This team is engaging patients, as well as clinical and research stakeholders, to create standard representations of heart health to enable standards-based interoperability in cardiovascular health and healthcare.

NEW DOMAIN

NEW DOMAIN
Use Cases
The CodeX framework spurs community-driven use case development and demonstration, piloted in-the-field by stakeholders expected to benefit in the future.

7
In Execution

- mCODE++ Extraction
- EHR Endpoints for Cancer Clinical Trials (ICAREdata)
- Integrated Trial Matching for Cancer Patients and Providers
- Cancer Registry Reporting
- Radiation Treatment Therapy Data for Cancer
- Prior Authorization in Oncology
- Genomics Data Exchange

2
In Planning

- CardX Hypertension Management
- Genomics Operations

2
In Discovery

- Risk Evaluation and Mitigation Strategies
- Quality Measures for Cancer

Each CodeX Use Case progresses through three stages of development.
Building data unity for patients, clinicians, and research.

Common data definitions drive high-quality computable data that are trusted, consistent, and usable.

1. Caring for Every Patient
   Break down silos and manual processes for efficient care and research across all settings, building trust with your care team and accurate data.

2. Learning with Every Patient
   Create easily accessible, accurate, and longitudinal patient stories that caregivers can use to personalize treatment and care.

3. Transforming Care for All
   Revolutionize healthcare and research by leveraging standardized data of individual patients to contribute to the health of all future patients.
Build and Innovate on Our Work

We enable high-quality computable data using HL7 and FHIR® standards to create a common language for clinical specialty domains in cancer, genomics, and cardiovascular health.

Get Engaged
CodeX hosts a monthly Community of Practice event to keep our community informed and engaged, and to make sure the public’s opinions are heard. We also hold Public Calls to give updates on ongoing CodeX use cases.

Attend Upcoming Events: https://confluence.hl7.org/display/COD/CodeX+Calendar

Expand Our Reach
There are currently over 250+ stakeholders involved in CodeX. We are looking to expand our membership and to partner with new health systems in our pilots. Spread the word!

Share our site: https://codex.hl7.org/

Support Our Mission
Funding from foundations, philanthropies, and government organizations will allow us to further scale and drive maximum adoption across systems. Please reach out about interesting opportunities that may apply to CodeX.

Email suchen@mitre.org or CodeX@hl7.org