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
https://www.linkedin.com/company/codex-common-oncology-data-elements-extensions/

CodeX

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/

CodeX™ Alignment With US Federal Rules
Create Foundation for FHIR® Health Data Exchange

The Office of the National Coordinator for
Health Information Technology℠

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

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The Office of the National Coordinator for
Health Information Technology℠

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

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CMS
CENTERS FOR MEDICARE & MEDICAID SERVICES

Interoperability Rule – FHIR® Transmissions
Create patient access APIs (claims, encounter, & select clinical data)
Create provider directory APIs
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

HL7® FHIR®

<u>Patients</u> can access and manage health data to optimize health

<u>Providers</u> and <u>payers</u> 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

CodeX™

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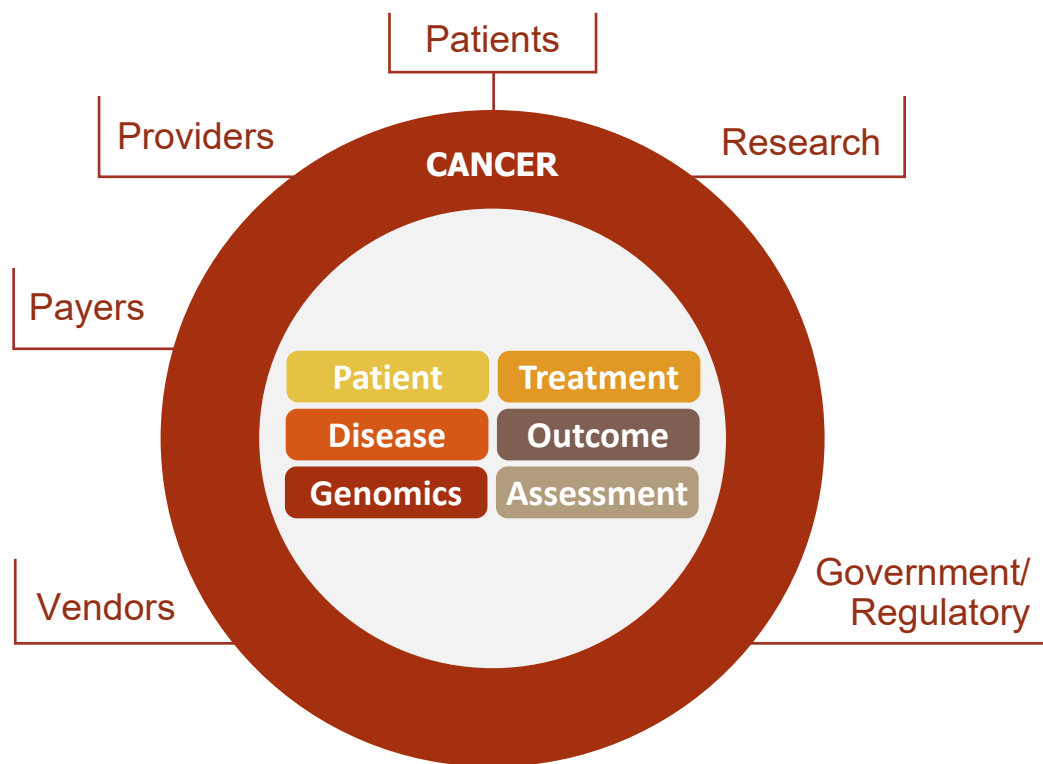
https://www.hl7.org/about/fhir-accelerator/

HL7 FHIR® Accelerators

CodeX™ 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

6 Payers

11 Pharma

111 EHRs and other tech companies

20 Medical Societies and Consortia

16 Government Agencies

16 Research Organizations

4 Nonprofits/ Foundations

4 Patient Advocacy Organizations

CodeX™

CodeX Members
(April 2023)

CodeX Founders ★

PREMIER

ALLIANCE FOR CLINICAL TRIALS IN ONCOLOGY

AMERICAN ASSOCIATION of PHYSICISTS IN MEDICINE ★

ASTRO ★ AMERICAN SOCIETY FOR RADIATION ONCOLOGY

EVERNORTH HEALTH SERVICES

HL7 International

MITRE ★

ontada

Pfizer ★

Syntropy ★

UnitedHealthcare ★

PRINCIPAL

Cancer Action Network℠ American Cancer Society® ★

Epic

varian A Siemens Healthineers Company

BENEFACTOR

ASCO AMERICAN SOCIETY OF CLINICAL ONCOLOGY KNOWLEDGE CONQUERS CANCER

CIBMTR CENTER FOR INTERNATIONAL BLOOD & MARROW TRANSPLANT RESEARCH ★

Medtronic

TEMPUS

Telligen®

GOVERNMENT AGENCY

CDC Centers for Disease Control and Prevention ★

FDA U.S. FOOD & DRUG ADMINISTRATION

NATIONAL CANCER INSTITUTE NATIONAL INSTITUTES OF HEALTH U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES

MCSP MICHIGAN CANCER SURVEILLANCE PROGRAM

University of Nebraska Medical Center™ BREAKTHROUGHS FOR LIFE®

SPONSORED MEMBER

AMGEN®

COMP Canadian Organization of Medical Physicists OCPM Organisation canadienne des physiciens médicaux

NRG ONCOLOGY Advancing Research. Improving Lives.™

cdisc

SIIM

DEVELOPER/IMPLEMENTER

Cancer Insights built by VIZLITICS

CENTANNI PARK

edifecs

elimu informatics

GuidelineCentral®

infowerks pain-free data solutions

MASSIVEBIO

Mettle SOLUTIONS

mcg PART OF THE HEARST HEALTH NETWORK

Navigate Oncology

NeuralFrame

ONCO

Oncora MEDICAL

patientlink Better Patient Connection · Better Data Collection

PHENO·TIPS®

PRINCIPIA HEALTH SCIENCES

QLHC Quantum Leap Healthcare Collaborative

storyhealth

UBC

Wemedoo Clinical Information Specialists
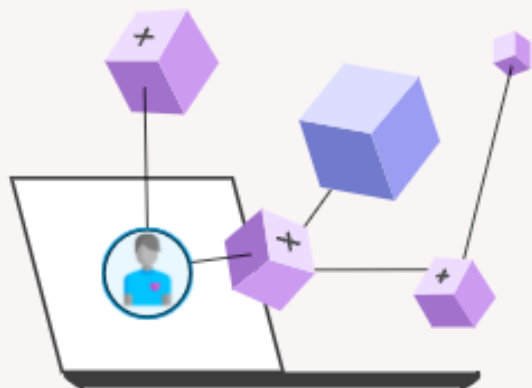
Health Data.
Collect Once,
Use Everywhere.

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

NEW DOMAIN

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

NEW DOMAIN

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.

CodeX™

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.

Discovery — Planning — Execution

CodeX™

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.

CodeX™

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