



Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™



Public Health Surveillance and Data

[Public Health Surveillance and Data Home](#)

Advancing Interoperability for Public Health



"Health data exchange architectures, application interfaces and standards enable data to be accessed and shared appropriately and securely across the complete spectrum of care, within all applicable settings and with relevant stakeholders, including the individual." – [Interoperability in Healthcare | HIMSS](#))

Our goal with data modernization is to develop maximally efficient and sustainable ways of accessing and sharing health data. To do that, we need to leverage newer policies and modern standards that will help make the data more interoperable.




CDC is working closely with partners through a number of initiatives that are happening within and beyond public health. The information and links below provide a good starting point for understanding this important work.

HL7® Fast Healthcare Interoperability Resources (FHIR®)

Access and Share Health Information Seamlessly

What is it? A set of best practices and open standards being developed and adopted by a global community to make data sharing more flexible and effective.

Why it matters: CDC is working alongside the [Office of the National Coordinator of Health IT \(ONC\)](#) and other partners from across healthcare, government, and the private sector to access and exchange information using FHIR® that is not readily available now.

- Get an overview: What Is [HL7® FHIR®](#)   ?
- Learn more about [HL7® International](#) , creators of this next-generation interoperability standard

Helios

Rapidly Scale FHIR®-Based Solutions for Public Health


What is it? A newly launched FHIR® Accelerator with HL7® that will rapidly design, test, and scale FHIR®-based solutions for high-priority public health use cases.

Why it matters: Helios will help public health align with and benefit from widespread standardization and transformation that are happening around digital health data.

- Learn more about [Helios priority areas](#)  for 2022

North Star Architecture

Accelerate Public Health Readiness

What is it? A joint effort between CDC and the [Office of the National Coordinator for Health IT](#)  (ONC) to help articulate a shared vision of a public health data infrastructure for jurisdictions to share necessary data with each other and CDC. This cloud-oriented environment (currently called the North Star Architecture) is being designed to support efficient integration of public health data systems using modern technologies, data governance, and infrastructure management approaches.

Why it matters: This model describes the who, what, and how of a future-state public health ecosystem – where data flows and information systems are coordinated, connected, and interoperable across healthcare and public health at all levels of government.

- Learn more about the [North Star Architecture](#)

USCDI and USCDI+ for Public Health

Create a Core Set of Standardized Data Elements for Health

What is USCDI? The United States Core Data for Interoperability is an ONC led initiative to provide a common core of standardized data to support treatment, payment, healthcare operations, requests from patients, post-market surveillance, research, public health, and other authorized uses.

What is USCDI+? ONC recently launched USCDI+ for Public Health alongside CDC to identify a set of data elements that complement USCDI but are specific to the needs of public health. This collaborative initiative aims to establish a nationwide public health data model based on USCDI standards required in certified health IT.

Why it matters: Inclusion in USCDI and USCDI+ makes mission-critical data more consistent, compatible, and usable for public health purposes

- **Learn more** about [USCDI](#) and [USCDI+](#)
- **Read the blog:** *Thinking Outside the Box: The USCDI+ Initiative*
- **Learn more and get information about how to participate by contacting ONC:** USCDI.Plus@hhs.gov

The Trusted Exchange Framework and Common Agreement (TEFCA)

Pre-Negotiate Agreements to Simplify Data Exchange Nationwide



What is it? A common baseline of legal and technical requirements for secure and efficient data sharing within and across health information networks.

Why it matters: TEFCA will help with developing common, pre-negotiated agreements about what information can be shared through secure nationwide interoperability networks.


- Learn more about [how TEFCA benefits public health](#)
- See the [notice of publication](#) for TEFCA
- Read the [Trusted Exchange Framework](#) : Principles for Trusted Exchange
- Read the [Common Agreement](#) for Nationwide Health Information Interoperability
- Learn more about TEFCA from the ONC HealthITbuzz blog: [3...2...1...TEFCA is Go for Launch](#)

Learn More

Blogs

- HealthITbuzz: [ONC and CDC Working Together to Strengthen Public Health Systems, Tools](#) 
- HealthITbuzz: [Interoperability Archives](#) 



Publications

- Public Health Data Modernization: [Listening Session on Real-World Testing of 21st Century Cures Act Requirements](#) 

Presentations

- [The future of Public Health – Data Modernization: CDC Foundation](#)   , January 25, 2022
- [Video: ONC's Micky Tripathi on data's role in addressing health inequality \(healthevolution.com\)](#)  , October 13, 2021
- [Public Health Data Systems – Micky Tripathi/ Dan Jernigan](#)   , May 13, 2021

Articles

- [Meet Micky Tripathi, PhD, MPP the New ONC National Coordinator – Health IT Answers](#)  . July 13, 2022
- [HIMSS22: Lessons to Reimagine Healthcare as Interconnected and Innovative | HealthTech Magazine](#)  , March 21, 2022
- [National Coordinator: TEFCA will enable 'North Star' architecture for public health | Healthcare IT News](#)  . March 16, 2022
- [Inside the Collaboration to Expand Public Health Data Interoperability \(governmentciomedia.com\)](#)  , March 16, 2022
- [Healthcare IT News: ONC, CDC want to fix the fragmented public health system COVID-19 exposed – FedHealthIT](#)  , August 16, 2021
- [ONC, CDC want to fix the fragmented public health system COVID-19 exposed](#)  , August 13, 2021
- [ONC Chief: Data standardization key to integrating public health into info-sharing infrastructure – MedCity News](#)  , July 5, 2021

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