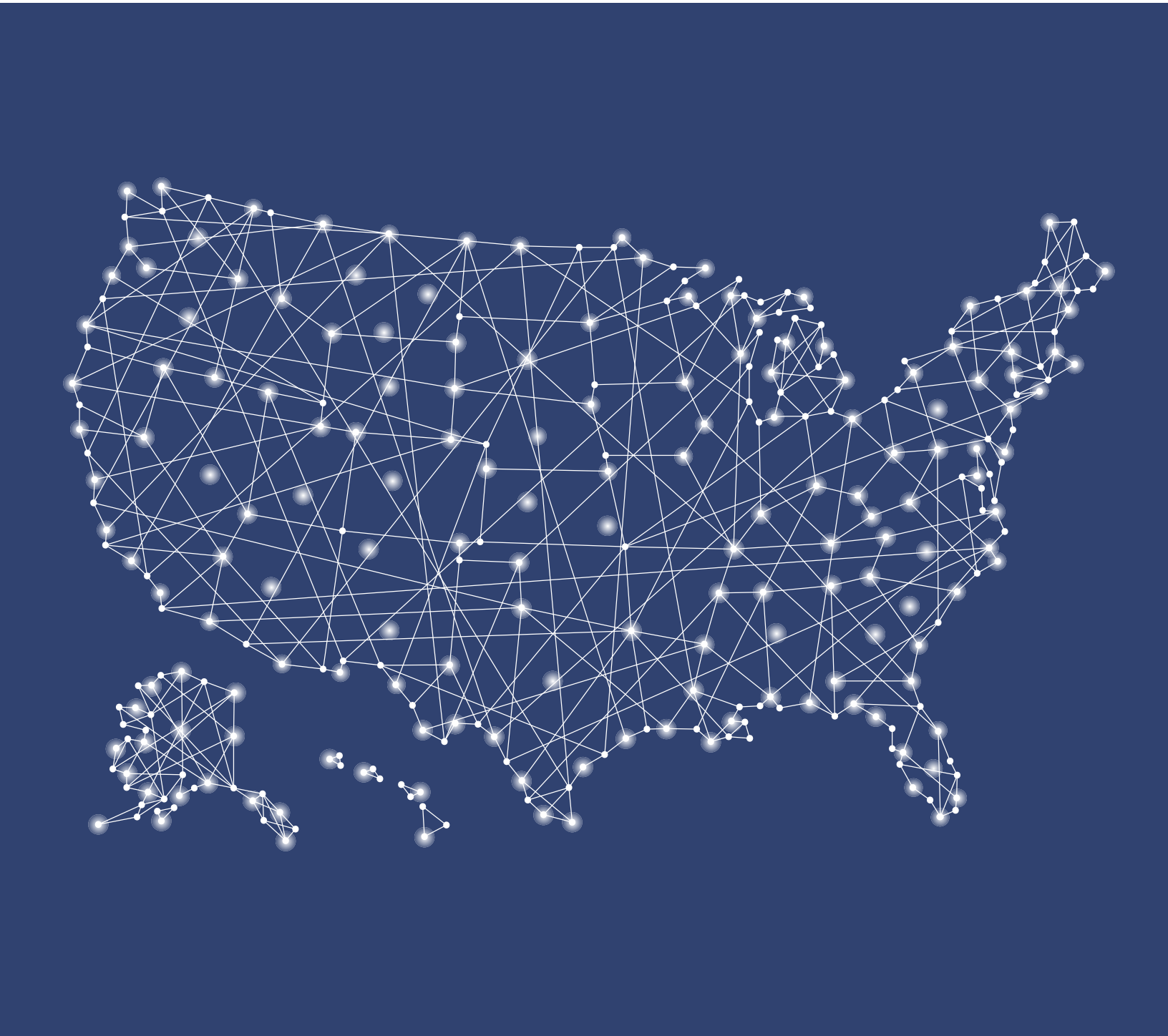
Consortium for State and Regional Interoperability

The Health Data Utility Capability Model **At-a-Glance**



Introduction

The Health Data Utility (HDU) Capability Model developed by the Consortium for State and Regional Interoperability (CSRI) is a practical, stakeholder-driven method for characterizing and assessing the capability and maturity of HDUs that provide comprehensive health data and analytics services to a wide range of public and private sector stakeholders across the U.S.

Building on CSRI's HDU Maturity Model first launched in 2023, the HDU Capability Model establishes a method for describing what an HDU can consistently deliver at scale that is outcomes-oriented, evidence-verifiable, and stakeholder-specific, mapping capabilities to the distinct needs of providers, public health agencies, Medicaid and other state programs, payers, researchers, and patients.

The Capability Model moves beyond a binary, step-function maturity ladder by combining foundational requirements with a weighted scoring method. The result is a clearer, more proportional view of what an HDU can reliably deliver today and where to invest next, without reducing complex performance to a simple checklist.

The HDU Maturity Model gave the community a shared map; the HDU Capability Model turns that map into a measurable, evidence-verifiable GPS that is actionable for strategy, procurement, *and* designation, while remaining adaptable to evolving policy and stakeholder needs.

What is a Health Data Utility?

A health data utility (HDU) is a not-for-profit organization with information exchange at its core and multi-stakeholder governance which, through its mission and function, seeks to meet the comprehensive health data delivery and analytics needs of a state's public and private sectors.

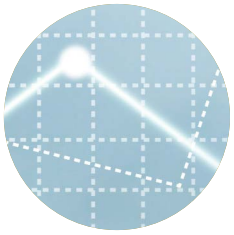
An HDU is designed to function much like a public utility, responsible for essential, statewide health data connectivity and governed for the public good. Typically designated or recognized by the state, an HDU operates within a minimally regulated framework but is held accountable to transparent governance processes. It builds cooperative relationships with state agencies, including public health departments and Medicaid, while also supporting the private healthcare sector's needs for secure, standards-based health data sharing in treatment, operations, quality measurement, population health management, and other key functions.

Core to the HDU model is the principle that secure, privacy-compliant access to health and health-related information—covering both individuals and populations—should be readily available to those with a legitimate need, consistent with federal and state laws. HDUs maintain and enhance high-quality, curated data assets, integrating inputs from multiple sectors, and providing technical services such as master patient indexing (MPI), data normalization, longitudinal records, and real-time event notifications. By doing so, they enable a wide range of use cases, from public health reporting and emergency preparedness to value-based care, research, and cross-sector social data integration.

The HDU Capability Model is Intended to support:

Public and private sector stakeholders who rely on health data to better understand the extent to which an HDU is meeting their specific needs.

Policymakers who are considering designation and/or further development of HDUs to support health data connectivity at the state and national levels.



HIEs and other organizations who can use the HDU model as a roadmap and standard to communicate the value and alignment of their data services with stakeholder needs.

The HDU Capability Model was developed with considerable input from stakeholders, including providers, payers, public health agencies, researchers, HDUs, health information exchanges (HIEs), and representatives of state and federal agencies. The model also reflects a review of requirements outlined in federal interoperability and data reporting rules and guidance as well as existing literature, information, and input provided by Civitas Networks for Health®, a national collaborative comprised of member organizations working to use health information exchange, data use, and cross-sector collaboration to improve health.

Key Elements of the HDU Capability Model:

1. **Five stakeholder-specific modules** that address the needs of the following: providers, payers, public health, researchers, and patients
2. **Shared or "core" capabilities** that are common across all stakeholder-specific modules
3. **Four levels of advancement:** Emerging, Foundational, Advanced, and Aspirational
4. **Certain "gates" must be passed** before achieving a higher level of advancement
5. **Scoring or "index" by stakeholder**, providing a clear, comparable view of an HDU's ability to deliver the capabilities most relevant to that specific stakeholder

The Model

Stakeholders

The HDU Capability Model identifies five key stakeholder groups of health data utilities and provides a tool to determine the extent an HDU is meeting the needs of those stakeholders:

Providers

Payers

Public Health Agencies

Researchers

Patients

Capabilities

The HDU Capability Model defines a capability as an outcome-oriented statement supported by verifiable evidence, ensuring that assessments focus on demonstrable results rather than aspirational claims. **The Capability Model includes more than 160 capabilities in total, that fall into one of two domains:**

Shared Domain Capabilities

Cross-cutting, essential enablers that underpin all functions and are shared among all key stakeholders

Stakeholder Domain Capabilities

Reflecting the distinct requirements of each of the five key stakeholders

Certain capabilities are called out as "gating" or required capabilities, meaning such capabilities must be present before higher levels of designation can be achieved.

See the full catalog of capabilities at:
thecsri.org/HDUcapabilities

Shared Domain Capabilities

Within the model, approximately half of the capabilities are in the shared domain (about 30 are gating capabilities) that fall into eight key categories:

Governance and Sustainability

Infrastructure and Operations

Data Services

Security and Privacy

Clinical Data Exchange

Network Breadth

Analytics and Reporting

Payer Services

Stakeholder Domain Capabilities

The other half of the capabilities are stakeholder-specific and mapped to their distinct needs (approximately 15 are gating capabilities). Below are examples of stakeholder needs and corresponding specific outcomes-focused capabilities defined in the HDU Capability Model.

Stakeholder	Needs	Example Capabilities
Providers	Data from other providers to improve clinical decision-making, better coordinate care, improve quality measurement processes, and implement value-based care models	Single sign-on (SSO) clinician portals with longitudinal records, push delivery of CCDAs, and clinical event notifications
Payers	More accurate and timely quality measurement and reporting, improve prior authorization processes, and drive faster, more accurate claims adjudication	Push delivery of clinical data, clinical event notifications, data aggregator validation, and provider directory
Public health agencies	Early detection and response to public health threats, real-time disease surveillance and outbreak detection, and enhanced emergency preparedness and response	Electronic lab reporting, electronic case reporting, syndromic surveillance, immunization information system (IIS) data access and reporting, public health analytics for national reporting, registry, and monitoring needs
Researchers	Faster and more efficient clinical research, post-market monitoring, and enhanced collaboration across institutions and disciplines	Cohort discovery, formalized processes for review and approval of research uses, descriptive summaries of data available for research use, aggregation of data into an OMOP/CDM, and consent management
Patients	Access to own health information, care coordination among healthcare providers, and less administrative burdens	Patient portal services, including direct access to longitudinal patient data or transfer of patient data to a third-party of the patient's choice

HDU Capability Levels of Advancement

The HDU Capability Model delineates four levels of increasing advancement into which the capabilities have been organized:

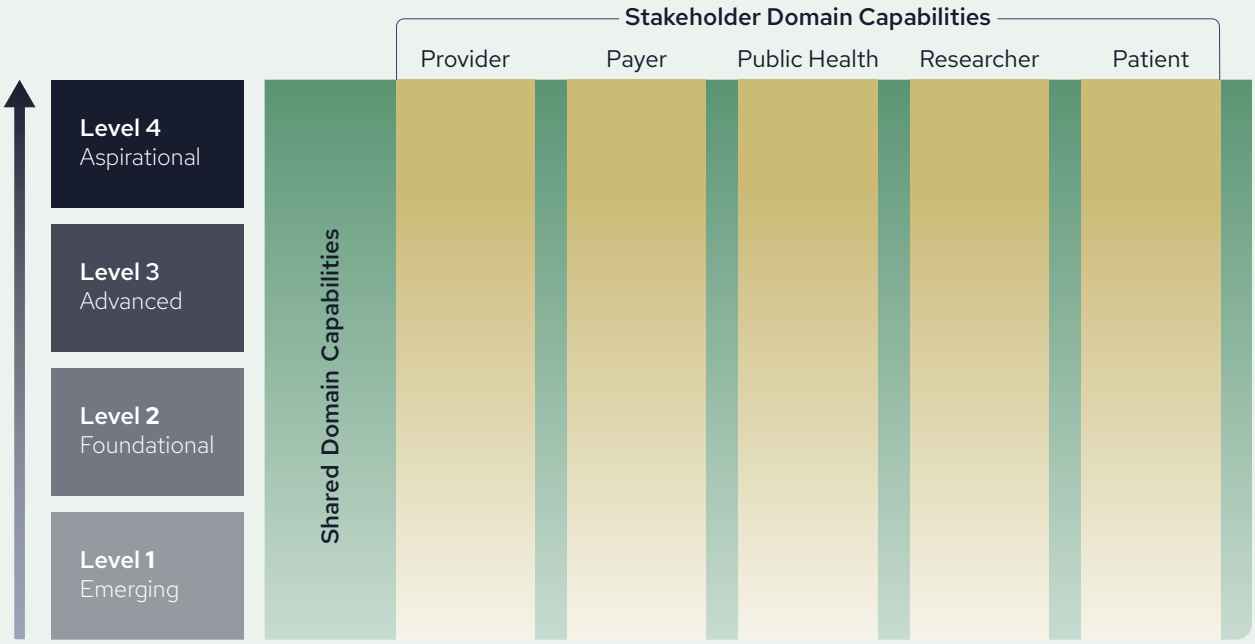
Level 4 – Aspirational – Statewide or multi-state operations with a broad profile of value propositions and continuous improvement processes, independent or third-party validation of performance, and demonstrable equity considerations embedded in operations, reporting, and governance.

Level 3 – Advanced – Scaled operation with established quality controls, active monitoring, and documented incident response procedures. Capabilities are deployed broadly within the declared scope, with performance tracked against agreed-upon metrics.

Level 2 – Foundational – Possesses key essential requirements, repeatable operation of capabilities at defined coverage and timeliness, meeting baseline functional requirements, and demonstrating consistent delivery of core services.

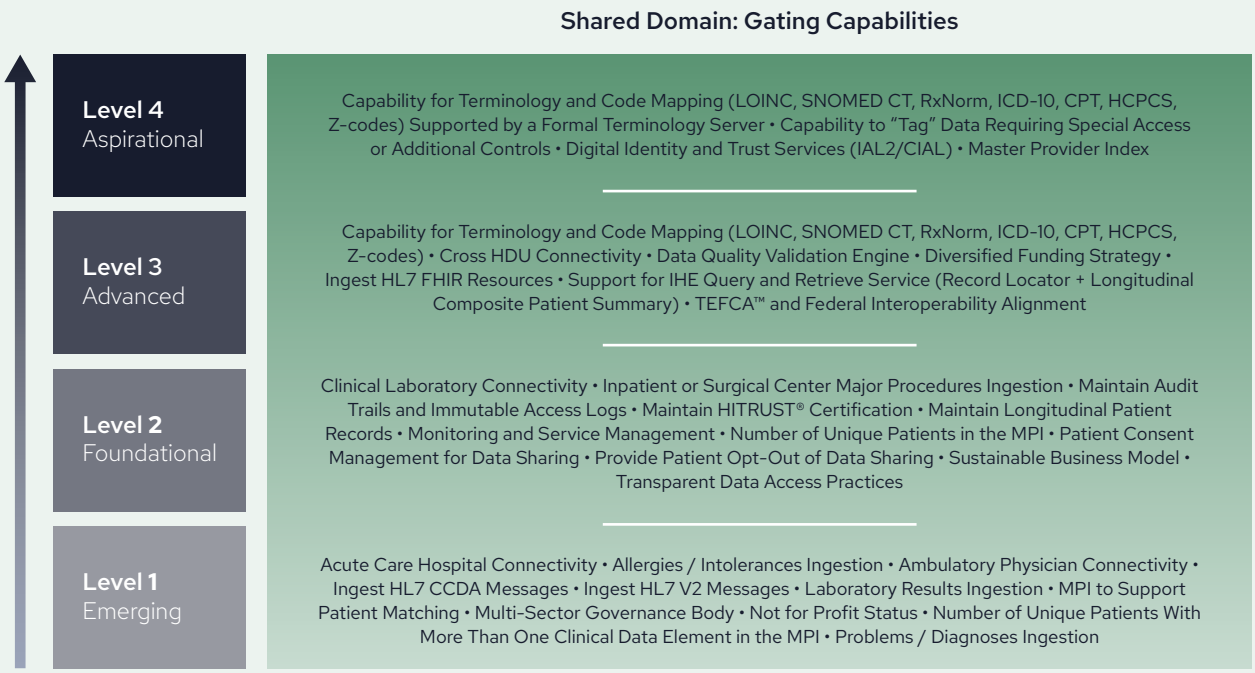
Level 1 – Emerging – Early-stage operations that are in planning or pilot phases, with limited coverage, inconsistent processes, and incomplete evidence of performance. Capabilities may be partially implemented or only available for a subset of the intended scope, and repeatability has not yet been established.

By clearly specifying what must be achieved and how achievement is proven, the model provides a rigorous, implementation-agnostic framework that promotes consistency, comparability, and accountability across diverse contexts and technical approaches.

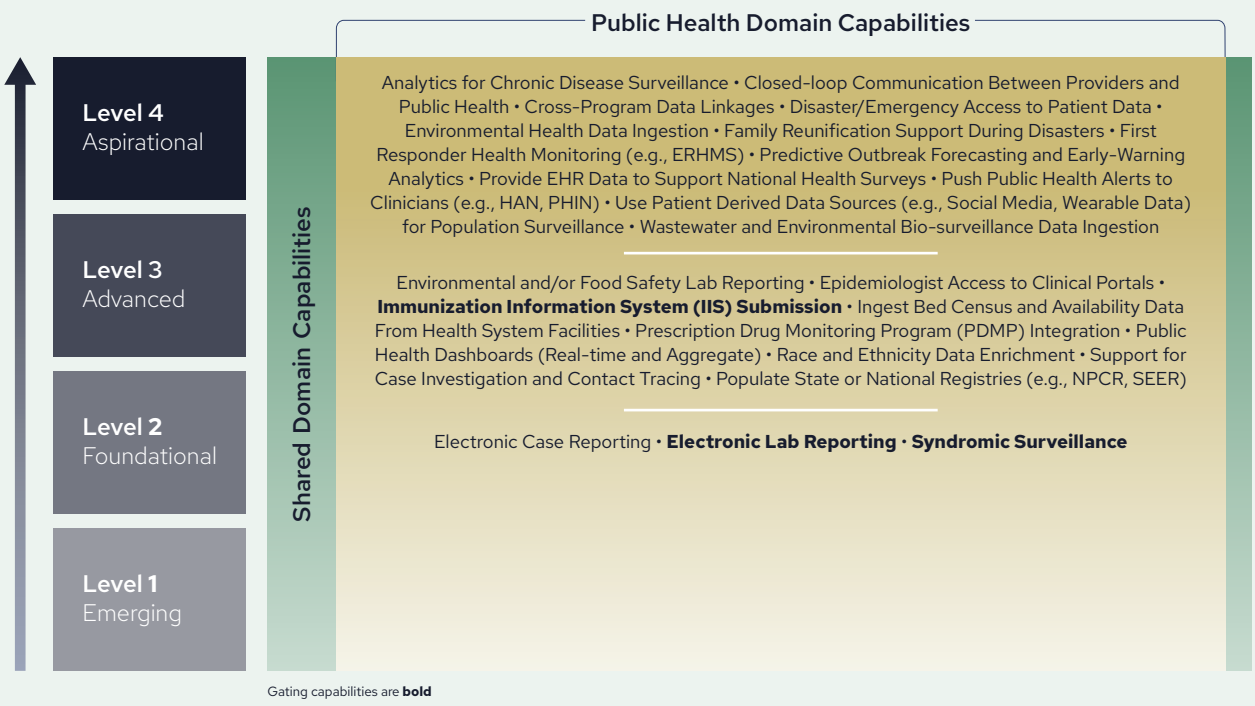


Overview of the HDU Capability Model

A Drill Down View of the HDU Capability Model



Shared Domain Capabilities: Gating Capabilities Only



Example of Stakeholder Domain Capabilities: Public Health

Capability Index by Stakeholder

Integral to the HDU Capability Model is the Capability Index, which distills an HDU's performance for each stakeholder domain into a single score from 0 to 100, providing a clear, comparable view of its ability to deliver the capabilities most relevant to that specific stakeholder. Each capability within the model is weighted according to its relevance to the stakeholder or domain being assessed and scored based on the extent to which the HDU provides the capability (on a 0-3 scale), the level of advancement of the capability (Emerging to Aspirational), and the capability weight. By translating this multi-dimensional assessment into a normalized 0–100 scale, the Capability Index allows stakeholders to quickly see how well an HDU is performing in areas that directly impact their use cases.

This method highlights strengths, identifies gaps, and supports targeted planning for improvement. It also allows apples-to-apples comparisons across HDUs in procurement, funding, and policy contexts. In short, the Capability Index serves as both a performance snapshot and a decision support tool, linking technical capabilities to stakeholder value.

Additional Resources

For more information about the HDU Capability Model, including a detailed catalog of all capabilities organized by level of advancement, and a robust guidebook on how to apply the model and calculate a Capability Index, **visit thecsri.org**.

About CSRI

The Consortium for State and Regional Interoperability (CSRI) is a collection of the nation's largest and most robust nonprofit health data networks. Collectively, our nonprofit organizations connect records for more than 100 million patients across several states and provide a wide range of services to healthcare organizations and local and statewide health agencies.

Members

contexture® Creating connections. Improving lives.

CRISP

CyncHealth

Indiana Health Information Exchange

Manifest MEDEX

NYeC NEW YORK eHEALTH COLLABORATIVE