DHIN Update for Delaware Health Care Commission

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DHIN Delaware Health Information Network

Empowering data-driven decisions

Outline

Who we are

What we do

How we're funded

Recent and upcoming initiative

Introducing DHIN

Established by statute (16 *Del C.* Chapter 103) – a **public-private partnership**

A "**public instrumentality**" – IRS term of art for a non-state agency established by statute to provide "**essential government functions"**

The State-sanctioned provider of health information exchange services

Operate as a self-sustaining not-for-profit business

Support public and private use of health data

Statutory Purpose:

Monitor public health

Reduce service duplication and healthcare costs

Improve communication and efficiency across health care settings

Serve as trusted source of information for providers, consumers, and purchasers of care

A Public-Private Partnership

PUBLIC FEATURES

- Size and composition of DHIN Board of Directors defined in statute
- Governor appoints DHIN's Board
- 4 State agencies have permanent Board seats (DHSS, DTI, OMB, Controller Gen)
- State agencies can obtain services from DHIN without going through normal procurement
- DHIN has sovereign immunity from suit
- DHIN is subject to FOIA
- DHIN has authority to promulgate regulations

PRIVATE FEATURES

- DHIN employees are not State employees
- Majority of board seats are non-government
- Exempt from State procurement law
- Broad authority to develop new services consistent with statutory purposes
- Broad authority to function as a not-for-profit business
- Fee-based services -- we do NOT get an annual appropriation from the State
- State agencies purchase services from DHIN

What DHIN Does

Delaware Health Information Network

Health Data Aggregator

- Data from multiple sources is aggregated, enriched, transformed, mapped, and identity-matched
- **"Data is more valuable in the presence of other data"**

Health Data Services Provider

- *"We make health data useful"* through a range of services wrapped around the data

Data Curation: Identity Matching

- DHIN receives **over 17,000 messages per hour** from hundreds of data sending organizations across the Mid-Atlantic region
- Each data sender uses a proprietary medical record number (MRN) to identify an individual patient
- Some organizations re-use the same number for different patients
- Some organizations use a new MRN for the same patient under certain conditions
- DHIN uses state-of-the-art tools and algorithms to map each proprietary MRN to a single “LinkID” so that all data about an individual can be grouped
- We currently have **over 5 million unique identities** from all 50 states in the DHIN database

Data Curation: Mapping and Enrichment

Data Mapping Example: Date Format

6/5/2025
6-5-2025
06-05-2025
June 5, 2025
Jun 5, 2025

→ 2025-06-05

This mapping effort is multiplied over hundreds of fields in the data we receive

Data Enrichment

- Information not included by one data sender can be added if has been contributed by another data sender
- Example: During the pandemic, DHIN enriched COVID test results sent to Public Health with race and ethnicity data received from other data senders
- Accurate identity matching is a prerequisite for enrichment
- This illustrates the adage, "**data is more valuable in the presence of other data**"

DHIN's Data Services

Data made available at the right time, right format, right workflow

Deliver

ELR
SS
PHR
Life Ins.
Legal
Med Apps

Clinical Results Delivery

Message delivery by several channel options to ordering provider and other destinations requested by data provider

Notify

Event Notification Service

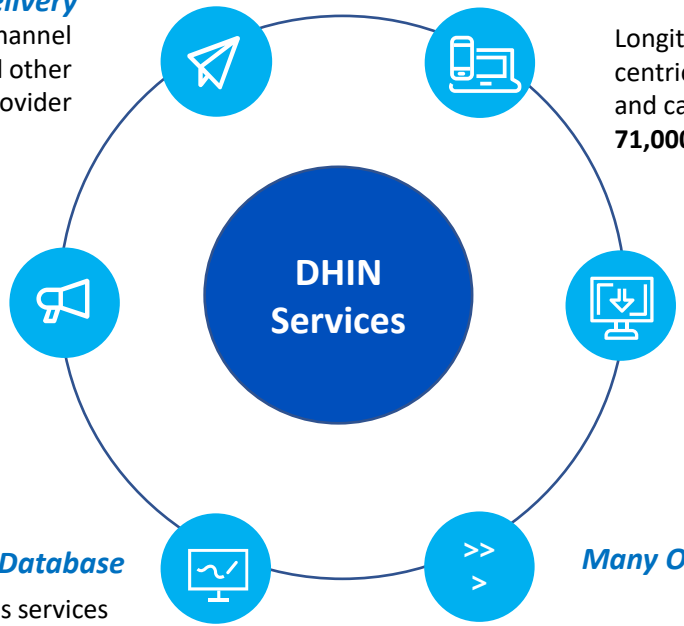
ADT-based alerts and notifications

Analyze

Clinical + Claims

All Payer Claims Database

Data extracts and reports, analytics services



Display

Community Health Record

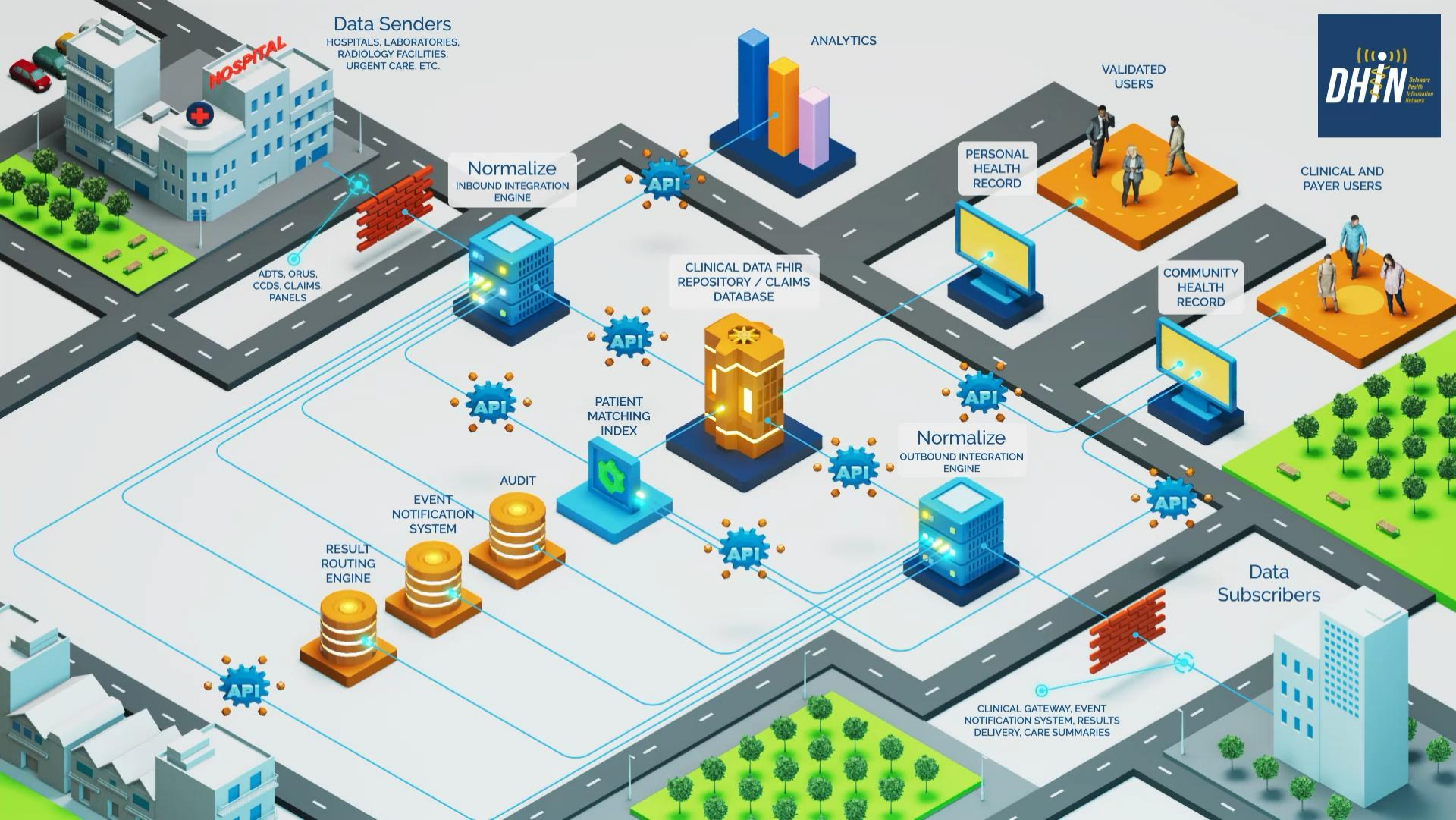
Longitudinal record of person-centric data across time, geography and care settings – **viewed over 71,000 times per day**

Deliver

Clinical Gateway

Bulk delivery of data for roster-based cohorts (populations)

Many Other Services!


Data Senders
HOSPITALS, LABORATORIES, RADIOLOGY FACILITIES, URGENT CARE, ETC.
HOSPITAL
ADTS, ORUS, CCDS, CLAIMS, PANELS
Normalize
INBOUND INTEGRATION ENGINE
API
ANALYTICS
VALIDATED USERS
PERSONAL HEALTH RECORD
CLINICAL AND PAYER USERS
COMMUNITY HEALTH RECORD
CLINICAL DATA FHIR REPOSITORY / CLAIMS DATABASE
PATIENT MATCHING INDEX
AUDIT
EVENT NOTIFICATION SYSTEM
RESULT ROUTING ENGINE
Normalize
OUTBOUND INTEGRATION ENGINE
Data Subscribers
CLINICAL GATEWAY, EVENT NOTIFICATION SYSTEM, RESULTS DELIVERY, CARE SUMMARIES
DHIN
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Analytics: Utility of Claims Data

Cost and Utilization

- Utilization and Spending for Certain Conditions or Procedures
- Price Transparency
- Price Variation among providers
- Cost-effectiveness
- Low-value care
- Cost of avoidable complications
- Pharmaceutical cost, utilization
- Oral health costs , utilization
- Behavioral health cost, utilization

Quality

- Preventive screenings, immunizations - variation and comparisons
- Continuity of care (transitions in care setting, coverage)
- Readmissions, hospital-acquired infection, preventable hospitalization
- Preventable Emergency Department (ED) visits

Coverage and Access

- Coverage trends over time
- Access to care, including specialty care and behavioral health
- Patient cost-sharing
- Rate review/ rate-setting
- Insurance coverage
- Network adequacy

Population and Public Health

- Chronic conditions prevalence, cost, quality (Diabetes, Asthma..)
- Opioid prescribing
- Connection between environment and chronic conditions
- Epidemiology: trends in the diagnosis of cancers, infectious diseases, behavioral health conditions, etc.

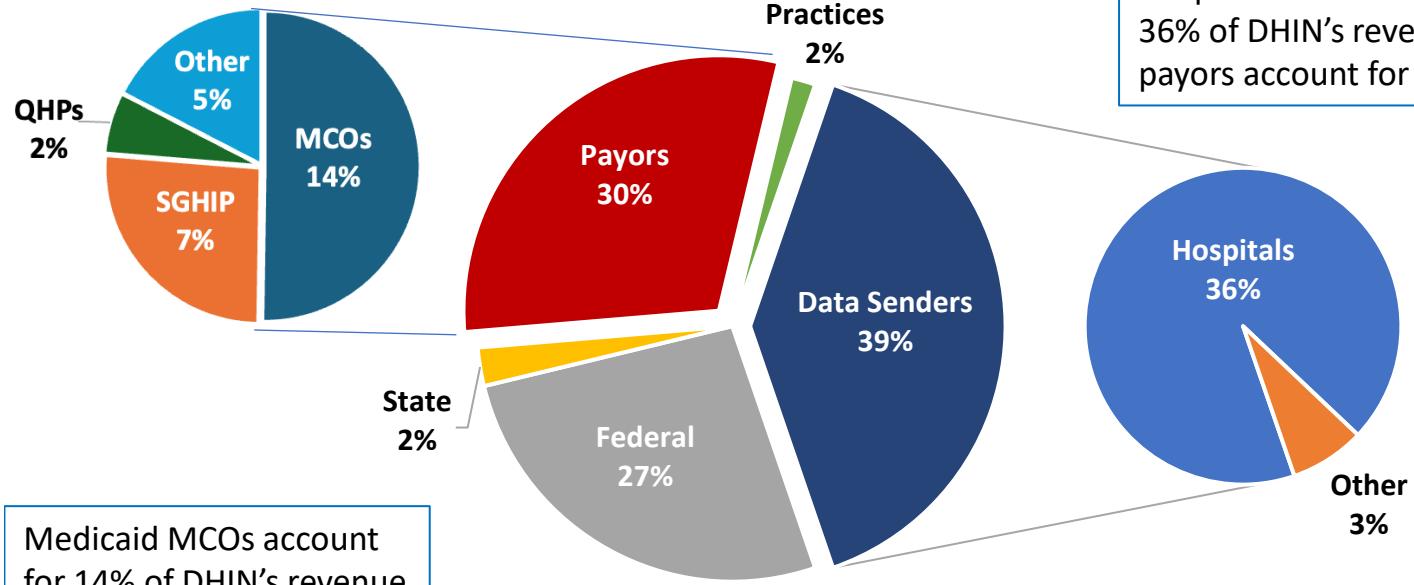
Health System Performance

- Effects of delivery system consolidation on cost, quality, access, equity
- Evaluation of new models of care and payment
- Integration of physical and behavioral health care
- Care coordination for special populations, e.g. dual eligibles
- Prevalence/ trends in alternative payment models

Analytics: Utility of Claims + Clinical Data

- Analysis of **claims** can answer questions about **cost**
- Analysis of **clinical data** can answer questions about **quality** and **outcomes**
- Most ”quality” measures are actually process measure – for example, what percentage of the people who SHOULD have gotten a particular intervention actually DID get it?
- Outcomes should be assessed differently – years of life added, quality of life improved – outcomes that matter to patients
- Only **clinical and claims data together** can answer questions about **value**
- **Value is a function of both cost and outcome** – what did we actually get for the money that was spent, and was it worth the cost?
- **DHIN has clinical data going back to 2007 and claims data going back to 2013 – we have a uniquely rich data set for addressing questions of value**

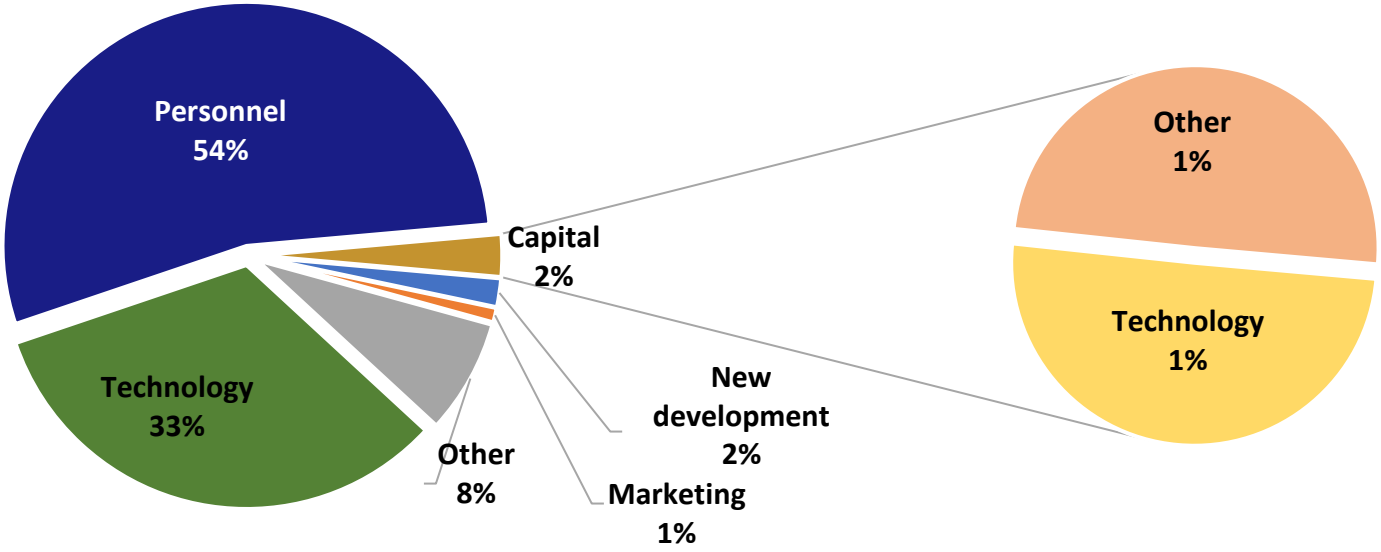
FY24 DHIN Revenue Sources



Hospitals account for 36% of DHIN's revenue; payors account for 30%

Medicaid MCOs account for 14% of DHIN's revenue

FY24 DHIN Expenses



Recent and Upcoming Initiatives

- Technology refresh (MPI, CHR, Integration Engine, “tech debt”
- Numerous projects with individual stakeholders (changes in EHRs, LIS, etc.)
- Onboard a QHIN for TEFCA participation
- Numerous analytics projects
- HITECH certification (gold standard in security best practices)
- Would love to add Behavioral Health/Mental Health and SDOH data – seeking partners
- Teeing up projects for FY26
- Currently wrapping up year 4 of a 5-year strategic plan – selecting a partner to facilitate development of next multi-year strategic plan
- Expect analytics to become an increasingly prominent service line

A Health Information Ecosystem…

… in which all participants both contribute and receive value

Q & A?

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