CLOSING GAPS IN CARE:

Delaware Health Information Network (DHIN) Helps Make Delaware Healthier

2023 ANNUAL REPORT





In Memoriam

Lynn Misener, a beloved member of our DHIN family, passed away suddenly in May of 2023.

In her role as director of plans and programs for DHIN, Lynn was truly the hub of our wheel, playing an instrumental role in scoping and leading projects and working with each of our data-sending customers on a first-name basis. She joined DHIN in our nascent days, bringing her experience in project management with Beebe Healthcare to stand up DHIN's project management office.

Lynn retired in 2022 to run her Rehoboth Beach shop, Sassy Chic, and to spend as much time as possible with her family, particularly her grandson Gavin. She stayed with DHIN as a contractor to help the team navigate the replacement of our Community Health Record, a project she was excited to manage.

Losing a colleague is difficult; losing a friend is heartbreaking. Her passing left a tremendous void, and she is dearly missed.

Lynn (left), with daughter Erica, pictured at her retirement party.

A Message from Our CEO

More than twenty-five years have passed since the Delaware General Assembly stood up DHIN as the nation's first operational statewide health information exchange. And while the technology and landscape have changed, our focus hasn't. At the heart of everything we do is a desire to make Delaware healthier.



Jan Lee, MD, MMM, FAAFP, Chief Executive Officer

Keeping that focus in mind, our management team huddles annually to set our corporate goals for the upcoming year, balancing the critical work needed now with initiatives that lay the groundwork for future success.

With several significant technology upgrades on deck, achieving this balance was especially important in 2023. Our corporate goals reflected a commitment to both increase our organizational efficiency today and set the stage for the transformative work of tomorrow. I'm proud to share that we hit each of the goals we set:

- ✓ Develop a 3-year pro-forma showing overall financial sustainability after completion of technology refresh
- ✓ Complete essential FY23 milestones for CHR transition
- ✓ Automate 200 hours/month of manual work processes.
- ✓ Resolve current weaknesses in DHIN's knowledge management system through Sharepoint optimization
- ✓ At least 5 DHIN managers will achieve a new certification in Business Relationship Management

In addition to our corporate goals, the DHIN team celebrated another milestone in 2023. Building on previously-earned certified status in both 2020 and 2017, we were thrilled to again earn **certified status by HITRUST for information security.** This certification was more expansive, including the following technology and services:

- + Our Analytics SFTP Server
- + Azure Active Directory
- + Clinical SFTP Server
- + Encounter Notification Service
- + Health Care Claims Database
- + Microsoft Office 365
- + Mirth Connect
- + NXT
- + Personal Health Record

HITRUST Risk-based, 2-year (r2) Certified status demonstrates that the organization has met demanding regulatory compliance and industry-defined requirements and is appropriately managing risk for the certified technology and services.

While we take satisfaction in a job well-done, it's always nice to be recognized by peers. Civitas, the health information exchange national trade association, named DHIN as its **Moving Data into Action** award winner at its 2023 national conference, in recognition of our work to liberate and leverage data to drive policy, outcomes and/or equity at the community, state or national level. And DirectTrust, a nonprofit healthcare industry alliance, honored DHIN as an **Interoperability Hero** for our efforts to fill a critical data exchange need in the long-term post-acute care space.

The following sections take a deeper dive into our work over the past year, particularly in the area of data analytics, and I hope you'll find DHIN's work with data as energizing as we do. By empowering data-driven decisions, DHIN helps make Delaware healthier, and we are grateful for your support and collaboration.

Janier L. Lee

By the Numbers: Decreasing Disruptions and Adding Skills

A critical part of providing high quality service to our partners is doing all we can to ensure our services are ready and available whenever they need them. That's why we've worked tirelessly to reduce service disruptions and increase the amount of IT training and certifications DHIN employees hold. Doing so ensures our ability to increase productivity and improve customer satisfaction across the board.

DECREASING SERVICE DISRUPTIONS

In each year of the past four years, DHIN has been able to significantly lower the number of service disruption hours. Through the evolution of our systems and growth in employee certifications, we reached an all-time low in FY23. Here's a look at the dramatic decrease of unplanned outages since FY20:

- 943.57 total service disruption hours in FY20
- 192.7 total service disruption hours in FY21
- 72 total service disruption hours in FY22
- 42 total service disruption hours in FY23

This decrease
has led to a 42%
improvement in FY23
over FY22 and a
95% improvement
since FY20.

GROWTH IN CERTIFICATIONS

Making sure all DHIN team members have the tools to stay ahead of the curve in an ever-changing data technology environment is key to the success of our organization and the partners we serve. To do that, we have worked to greatly increase the number of certifications our team holds.

Since 2016, DHIN has invested heavily in Information Technology Infrastructure Library (ITIL) certifications and Business Relationship Management Professional (BRMP) certifications for our employees.

ITIL is widely considered one of the most adopted frameworks for IT Service Management.

Business Relationship Management Professional (BRMP) certification helps our employees connect relationships to results at every level.

As of 2023, DHIN's 47 employees hold over 200 certifications in ITIL and BRMP.

Our Strategic Plan

Year Two of DHIN's strategic plan built upon the progress made delivering value and driving innovation for our partners. Each strategic initiative requires financial and human investment and supports our desire to serve as Delaware's unbiased, community trustee for health data.

THE INITIATIVES NECESSARY TO ACHIEVING SUCCESS:



To be the
preferred, highly trusted
provider of health data services,
enabling healthcare transformations
that promote health equity,
facilitate quality of care
and save time, money
and lives.

Guiding the execution of this vision is DHIN's five-year strategic plan, which we developed with Maestro Strategies and launched in FY21.

THIS PLAN FOCUSES ON FOUR MAJOR THEMES:

- 1. Maintaining Our Relevance in a Value-Based Care-Driven Market
 - 2. Strengthening Our Ties to the State
 - 3. Strengthening Business Sustainability
 - 4. Maintaining Our Current Strengths and Advantages

MAINTAINING OUR RELEVANCE IN A VALUE-BASED CARE-DRIVEN MARKET

"Data's value grows in the presence of other data." - Jan Lee, MD, DHIN CEO

Our reputation as a trusted health data services provider depends on our ability to augment and supplement our data sources.

Perhaps the most exciting data development is the ability to marry clinical and claims data, a process DHIN is developing to make our analytics offerings more robust.

STRENGTHENING OUR TIES TO THE STATE

Nearly 75% of Health Care Claims Database (HCCD) projects have been for state agencies, and we've successfully petitioned for a \$3 million state appropriation for the HCCD, which is expected to last several years.

Additionally, we've continued to meet regularly with leadership from multiple state agencies to maintain ongoing dialogue. Through that dialogue, we worked with the Delaware Hospital for the Chronically III to incorporate their data. Our claims database and analytics team collaborated with the State Council for Persons with Disabilities (SCPD) on a traumatic brain injury study, revealing how medical services could be better aligned with Delaware communities. We also developed agency-specific marketing strategies to drive interest in services DHIN provides.

IMPROVING BUSINESS SUSTAINABILITY

Securing DHIN's long-term future means working to strengthen business sustainability in key areas both fiscally and operationally.

Despite beginning FY23 with a projected negative net income of \$1.7 million, we ended the year with a positive net income of \$300,000.

We also completed a review of other health information exchanges around the country to learn more about their business planning and funding sources. Few are self-sustaining, instead relying heavily on grants and state financial support.

We worked closely with a coalition of stakeholders on the long-term sustainability of the DMOST

registry and began a multi-year effort to replace several critical technology components while prioritizing both modernization and cost containment.

MAINTAINING OUR CURRENT STRENGTHS AND ADVANTAGES

Developing new organizational relationships is critical to staying ahead of the curve. That's why we've worked to open new lines of business, notably biopharma relationships for clinical trial candidate sourcing. DHIN has also continued engagement with organizational and business unit leaders working to execute on our "one problem to solve" premise to eliminate roadblocks and make operational goals and decision-making more streamlined.



A New Vision for Exchanging Data

As DHIN continues to evolve, so do the types of data we exchange with our healthcare partners. As the leading health information exchange, it is imperative that we adapt and innovate to stay ahead of an ever-changing data-centric healthcare environment.

THE DATA ANALYTICS DILEMMA

As data needs evolve, so does our approach to data analytics. We adopted a system that would allow us to expand our customer base, reduce data wrangling and make the overall data sending process more streamlined.

DHIN's initial strategic vision for data analytics was developed in 2020 as part of a three-year plan. While the vision was a good start for a nascent service, it lacked a connection to DHIN's overall strategic plan, introduced in 2021, and focused solely on the database, not the larger service offerings.

Following a competitive procurement process in early 2022, DHIN selected Maestro Strategies to conduct a comprehensive marketplace assessment and analysis of current service offerings.

With those findings, we developed a three-year, two-phased approach to growing our data analytics service.

PHASE I: EXPANDING THE FOUNDATION

During the first phase, we are expanding our customer base, creating a data analytics value proposition, integrating data analytics into our organizational operations, providing ease of access to individual payers' data and developing self-service capabilities for customers to be able to experiment with data.

PHASE II: GROWING THE ANALYTICS SERVICE PORTFOLIO

This phase of the process focuses on providing a full range of analytic services, including basic descriptive analytics, diagnostic analytics, real-time (or near real-time) analytics, predictive analytics and, ultimately, prescriptive analytics. This includes creating standard data sets for customers and integrating data from multiple sources for advanced analytics. Throughout this process, we will work with our partners to identify challenges that need to be solved and the appropriate analytics solution to help inform policy and legislation.

THE PATH FORWARD

DHIN's vision for data analytics will drive better engagement with customers and generate new insights to improve the business of delivering care. Look for a more robust analytics service offering by the close of FY26.

Delaware's Health Care Claims Database

Also referred to as an All-Payer Claims Database, Delaware's Health Care Claims Database (HCCD) continues to expand as the state's largest source of claims data, cementing its reputation as a relied-upon tool to help drive healthcare policy and action.

A cornerstone of DHIN's analytics offerings, the database has produced substantive work for multiple State agencies and national organizations and supplied a growing portfolio of public reports helping to correlate the investment in and subsequent quality of healthcare services.

Prior to the database, externally-sourced data, not necessarily specific to Delaware, would have been necessary for these types of projects. Using Delaware data may make the results more reliable for Delaware's population and uniquely positions the HCCD as Delaware's healthcare data resource.

The purpose of the

HCCD is to facilitate data-driven,
evidence-based improvements
in access, quality and cost of healthcare
and to promote and improve public
health through increased transparency
of accurate claims data
and information.



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SCOPE AND SCALE

Now in its sixth year, the HCCD contains claims records for 980,000* unique persons, representing more than 60% of Delaware residents. This includes Delaware Medicare, Medicaid and some commercial health plans, with data spanning 2013 through 2023.

New this year was the addition of pharmacy claims from Walgreens (Express Scripts) and CVS, as well as claims from a new submitter, Delaware Health First.



HIGHLIGHTS

How Data Fights a "Silent Epidemic"

With one in four Delawareans experiencing a traumatic brain injury (TBI), the Brain Injury Committee, a subgroup of the State Council for Persons with Disabilities, seeks additional funding for education and treatment services. Using HCCD data to identify the number of people diagnosed with TBIs between 2016 and 2020, as well as the timeframe and locations for receiving follow-up services, the team found:

- Only 14% of TBI patients received a follow up visit.
- Only 16% of patients with a concussion received a cognitive evaluation.
- The majority of patients with a concussion-type injury from Kent and Sussex Counties sought care (i.e. cognitive evaluation) in New Castle County.

These findings and more will be shared and used to help drive resources to both prevent and treat TBI cases in Delaware.

Primary Care Reform Initiative

In the State of Delaware's ongoing efforts to rein in healthcare costs, the Delaware Health Care Commission submitted an application for a data extract utilizing DHIN historical data as part of the development of a value-based payment model, designed to invest in six areas that will help to achieve the Triple Aim.



ONGOING COMMITMENTS

CostAware

Developed by the Delaware Division of Health & Social Services and the Health Care Commission in collaboration with DHIN, the CostAware website features analyses using HCCD data, designed to help Delawareans better understand how their healthcare dollars are spent across care settings.

New reports published in 2023 included:

- Imaging
- Imaging with named providers
- Prescription drug costs

These reports are the second phase of the State's CostAware initiative, which began in 2022. Available outpatient reports now include:

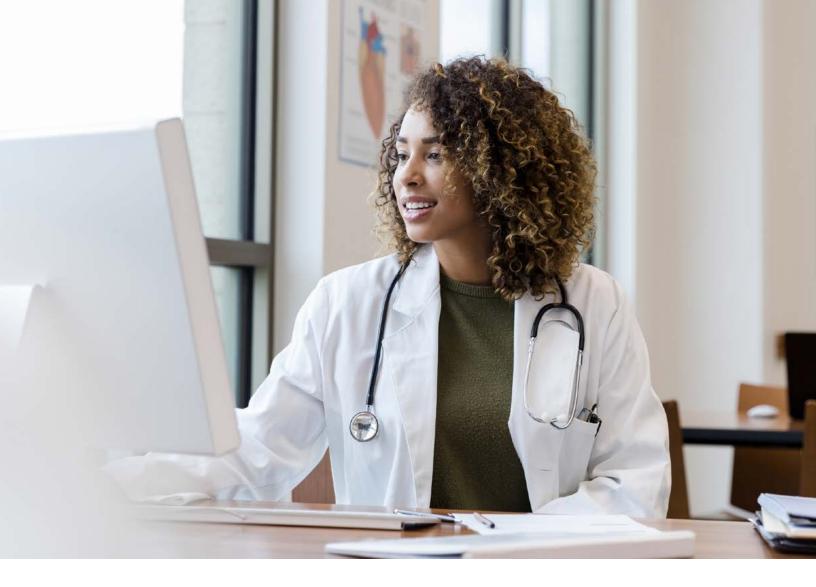
- Blood counts
- Cardiac procedures
- Child wellness
- Colonoscopies
- Diabetes-related
- Doctor visits
- Emergency Department visits
- Gall bladder removal
- Head CTs
- Lumbar spine MRIs
- Mental health
- Screening mammography
- Urine tests

Inpatient reports are available for knee and hip replacements, as well as childbirth, and additional available reports include top procedures by claims and total spending, as well as accountable care organization and hospital quality reports.

The rates were updated with 2021 HCCD medical claims and reflect the actual amounts paid by consumers and insurers.

^{*}While 980,000 nears the total population of Delaware, this count includes individuals who were previously residents and/or included in the claims provided, so the population represented by this count hovers around 60% of the state's total population.





Public Reports

In addition to projects for customers, the DHIN team continues to develop and publish public reports, made available on the public portal found on dhin.org. New to the portfolio of public reports is a pharmacy spending report and a data dashboard, showcasing the HCCD's capabilities.

Available reports now include:

- Prescription spending
- Data dashboard
- ED visits
- ED visits opioids
- Epi pen
- People at higher risk for COVID-19
- Top prescriptions
- Top diagnoses
- Telehealth spending COVID-19

While projects for the State of Delaware account for the majority of HCCD work, the DHIN analytics team continues to seek opportunities with customers from the federal government, private industry and non-profit and grant-funded organizations, like Delaware INBRE.

As an affiliate member of INBRE, a collaborative network of academic, healthcare and research institutions, DHIN leverages the HCCD and analytics services to help members expand research activities and increase Delaware's competitiveness for federal biomedical research funding.

A list of all project applications received to date can be found on dhin.org/healthcare-claims-database

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FINANCIAL OVERVIEW

Federal grants funded the planning and implementation of the Delaware HCCD, including a one-time appropriation of \$2 million by the 149th Delaware General Assembly to support the work.

That \$2 million was also leveraged as the State's match for the Implementation Advanced Planning Document (IAPD) federal funding, applied for – and received – in partnership with the Division of Medicaid and Medical Assistance. The Centers for Medicare and Medicaid Services approved the IAPD in May 2019, and the State signed an agreement with DHIN in December 2019 to carry out the IAPD activities.

At the time, the \$2 million appropriation was expected to sustain the HCCD through June 2020. Instead, the initial appropriation sustained operations through FY24, while DHIN continued to pursue longer-term funding strategies.

In exchange for the State's bulk financial appropriation, the HCCD statute names State agencies that may receive access to the data at no cost. Requests from other entities, both private and public, are subject to a fee schedule. It is important to note, however, that no All-Payer Claims Database in any state is thus far sustainable through the sale of data products alone. All receive some combination of state, federal and grant funding.

To support the ongoing operations of the State's HCCD, DHIN requested and received a \$3 million appropriation, which is expected to last through State FY28/Federal Fiscal Year 2028. As per the founding appropriation, the requested \$3 million will help fund the State's 10% match, unlocking nearly \$18MM from federal sources, per the table shown below.

Note: The Required State Appropriation Funding column, beginning in FY24 and continuing through FY28, tallies to the requested \$3MM.

DHIN — **HCCD/IAPD** Expense and Funding Summary

	DHIN Expense Components					Funding Sources			
Federal Fiscal Year	DHIN Staff	Project Management	Data Management	CostAware	Total	IAPD	Appropriation Match	DHCC Match (For CostAware)	Total
FFY 24	\$1,021,571	\$400,000	\$1,620,000	\$484,380	\$3,525,951	\$3,173,356	\$304,157	\$48,438	\$3,525,951
FFY 25	\$1,123,728	\$440,000	\$1,782,000	\$532,818	\$3,878,546	\$3,345,246	\$460,038	\$73,262	\$3,878,546
FFY 26	\$1,236,101	\$484,000	\$1,960,200	\$586,100	\$4,266,401	\$3,519,781	\$644,053	\$102,567	\$4,266,401
FFY 27	\$1,359,711	\$532,400	\$2,156,220	\$644,710	\$4,693,041	\$3,695,770	\$860,270	\$137,001	\$4,693,041
FFY 28	\$1,495,682	\$585,640	\$2,371,842	\$709,181	\$5,162,345	\$4,065,347	\$946,297	\$150,701	\$5,162,345
Total	\$6,236,793	\$2,442,040	\$9,890,262	\$2,957,188	\$21,526,283	\$17,799,499	\$3,214,815	\$511,970	\$21,526,28

DELAWARE HEALTH INFORMATION NETWORK

Management's Discussion and Analysis June 30, 2023

ASSETS	2023	2022
Commont Accets		
Current Assets Cash and Cash Equivalents	\$ 4,693,001	\$ 4,510,667
Investments	3,298,819	
Trade Receivables-Net 150,126	792,461	1,218,828
Prepaid Expenses	369,861	248,406
TOTAL CURRENT ASSETS	\$ 9,154,142	\$ 8,992,351
Other Assets		
Lease Deposit	6,979	6,979
Capital Assets, Net	4,030,182	_
TOTAL OTHER ASSETS	4,037,161	6,979
TOTAL ASSETS	\$13,191,303	\$ 8,999,330
LIABILITIES AND NET POSITION		
Current Liabilities		
Accounts Payable and Accrued Expenses	\$ 678,885	\$ 1,105,444
Unearned Revenue	98,510	34,987
Current Maturities of Lease Liabilities	77,876	_
Current Maturities of Subscription-based		
Information Technology Arrangements	1,404,195	_
TOTAL CURRENT LIABILITIES	2,259,466	1,140,431
Other Liabilities		
Lease Liabilities (Net of Current Maturities)	84,268	_
Subscription-based Information Technology		
Arrangements (Net of Current Maturities)	2,319,963	_
TOTAL OTHER LIABILITIES	2,404,231	
TOTAL LIABILITES	4,663,697	1,140,431
Net Position		
Unrestricted	8,527,606	7,858,899
TOTAL NET POSITION	8,527,606	7,858,899
TOTAL LIABILITIES AND NET POSITION	\$13,191,303	\$ 8,999,330

DELAWARE HEALTH INFORMATION NETWORK

 ${\bf Management's\ Discussion\ and\ Analysis-Continued}$ June 30, 2023

	2022	2022
Operating Revenue	2023	2022
Core Services		
Results Delivery	\$ 4,770,089	\$ 5,297,978
Community Health Record (CHR)	3,926,037	3,674,217
TOTAL CORE SERVICES	8,696,126	8,972,195
Value-Added Services		
CHR-Viewing by Providers	194,623	156,675
Medication History Access	24,520	24,520
Encounter Notification Services	83,550	146,997
Image Viewing CCD Exchange	- 3,920	14,970 5,083
Claims Database	14,800	66,900
Professional Services	218,508	202,070
TOTAL VALUE-ADDED SERVICES	539,921	617,215
TOTAL OPERATING REVENUE	9,236,047	9,589,410
Operating Expenses		
Personnel	\$ 7,049,780	\$ 5,894,731
Licenses and Software Maintenance	1,033,946	2,682,457
Contractual (Non-Technical)	1,008,375	1,054,367
Administration	716,174	638,464
Marketing Implementation Costs	169,094 17,918	151,437 102,296
Depreciation and Amortization	1,738,801	105,707
Technology Refresh	145,014	-
TOTAL OPERATING EXPENSES	11,879,102	10,629,459
Operating Loss	(2,643,055)	(1,040,049)
Nonoperating Revenue (Expenses)		
Grant Revenue	2,545,059	1,964,096
State Appropriation	282,784	214,166
Contributions and Miscellaneous Revenue	420.012	133,765
Cost Aware Investments Income (Loss)	428,013 292,917	243,993 (353,265)
Interest on Capital Asset–Related Debt	(202,991)	(555,265)
TOTAL NONOPERATING REVENUE	3,345,782	2,202,755
Change in Net Position	702,727	1,162,706
Net Position-Beginning of Year	7,858,899	6,696,193
Change in Financial Reporting Entity (Note 12)	(34,020)	-
Net Position-End of Year	\$ 8,527,606	\$ 7,858,899

DELAWARE HEALTH INFORMATION NETWORK

Management's Discussion and Analysis – Continued June 30, 2023

The Organization's operating revenues decreased by \$353,363 during FY 2023 due to a decrease in the number of data senders compared to FY 2022.

Nonoperating revenue increased by \$1,143,027 during FY 2023 due to a significant increase in Cost of Care funding, an increase in reimbursements from the State of Delaware related to the Health Care Claims Database agreement, and increased investment income compared to the prior year.

Administration expenses represent overhead costs such as rent expense, supplies, computer support, meeting expenses, and travel.

Implementation costs expenses represent costs directly related to the implementation of new functions, new data types, Electronic Medical Records (EMR) vendor interfaces, and new data senders.

Technology refresh expenses include expenses for the first stage of the Community Health Record replacement and the reconfiguration of DHIN's internal SharePoint platform.

Personnel expenses consist of costs for payroll and payroll-related expenses for employees. These costs increased by \$1,155,049 during FY 2023 due to hiring additional staff and annual salary increases.

Depreciation and amortization costs increased by \$1,633,094 during FY 2023 due to an increase in capital assets resulting from the Organization's leasing and subscription-based information technology arrangements.

CONTACTING DHIN'S FINANCIAL MANAGEMENT

This financial report is designed to provide interested parties with a general overview of DHIN's finances and to demonstrate DHIN's accountability for the money it receives. If you have questions about this report or need additional financial information, contact:

Delaware Health Information Network 107 Wolf Creek Blvd #2, Dover, Delaware 19901

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