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September 19, 2019

The Honorable Joe Sanfelippo  
Chair, Committee on Health  
314 North, State Capitol  
Madison, WI 53708

Dear Representative Sanfelippo:

Wisconsin Stat. § 153.05(2s) directs the Department of Health Services (DHS) and the Department of Employee Trust Funds to jointly prepare an annual report on the activities of the Wisconsin Health Information Organization (WHIO). This report is submitted to the standing committees of the Legislature with jurisdiction over health issues, and can also be found online at <https://www.dhs.wisconsin.gov/library/p-01067.htm>.

Please find enclosed the 2018 annual report on the activities of the WHIO. If you have any questions, please contact Mitzi Melendez-Prodoehl, eHealth and Quality Specialist, DHS/Division of Medicaid Services, at 608-261-8871.

Sincerely,

Handwritten signature of Robert J. Conlin in black ink.

Robert J. Conlin, Secretary  
Department of Employee Trust Funds

Sincerely,

Handwritten signature of Andrea Palm in black ink.

Andrea Palm, Secretary-designee  
Department of Health Services

Enclosures

## 2018 Annual Report to the Wisconsin Legislature on the Wisconsin Health Information Organization (WHIO)

Submitted by the Department of Health Services and the Department of Employee Trust Funds

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### Background

In 2008, the Department of Health Services (DHS) and the Department of Employee Trust Funds (ETF) entered into a contract with the Wisconsin Health Information Organization (WHIO) to serve as the data organization defined in Wis. Stat. § 153.01(3g). WHIO was formed to collect and aggregate health care claims data into a centralized repository that could be analyzed to report on the delivery of health care in Wisconsin.

WHIO was established in 2005 to drive improvements in the quality, safety, efficiency, and cost of health care. WHIO is governed by a multistakeholder board of directors that includes providers, purchasers, insurance payers, and state agencies. The 2018 board of directors is comprised of representatives from the following organizations:

- Department of Health Services
- Advocate Aurora Health Care
- The Alliance
- The Benefits Services Group (BSG)
- BroadStreet
- Business Health Care Group
- Employee Trust Fund
- Marshfield Clinic
- NeuGen (formerly Wisconsin Education Association Trust)
- United Health Care of WI
- Wisconsin Physicians Service Health Insurance
- Wisconsin Collaborative for Healthcare Quality
- Wisconsin Hospital Association
- Wisconsin Medical Society
- Wisconsin Statewide Health Information Network

The purpose of WHIO was to create a centralized repository of aggregated, administrative, medical, and pharmacy claims data for Wisconsin, commonly referred to as an all-payers claims database (APCD). Since inception, WHIO has produced periodic “data marts” that can be used to inform policy, strategy, and business decisions. Each new version is referred to as Data Mart Version (DMV) followed by the sequential number of the edition. In 2018, WHIO produced DMV18 and DMV19 in January and August respectively.

The production of each DMV requires a series of steps that starts with the integration of over 125 million claim lines per year from health plans, self-insured employers through The Alliance, Medicaid, and a pharmacy benefit administrator. Once the claims are in a uniform format, provider matching, member matching, de-identification, and standard pricing algorithms are applied. The next step is to attribute claims to providers and physicians, apply risk adjustment where appropriate, and group the claims by disease and episode so that the output is information that can be used to make decisions.

The claims WHIO processes in a year represent 4 million Wisconsinites and \$100,000,000,000 of health care services related to inpatient, ambulatory surgery, outpatient, professional services, pharmacy, home health, hospice, long-term care, and durable medical equipment services. Each data

mart is produced on a six-month cycle and captures 27 months of claims. Table 1 below provides general facts for selected DMVs.

Table 1: DMV Statistics

	DMV2	DMV4	DMV6	DMV8	DMV10	DMV12	DMV 14	DMV 16	DMV 18**	DMV 19
Members Included	1.51 M	3.44 M	3.86 M	3.95 M	4.02 M	4.05 M	4.2 M	4.2 M	4.4 M	3.9 M
% WI Population	26.8%	58.0%	64.9%	65.7%	70.5%	69.9%	74%	73%	76%	67%
Claims Included	72.7 M	207.1 M	247.6 M	247 M	247 M	302 M	308 M	292 M	314 M	290 M
% Commercial Claims	92%	40%	42%	40%	41%	37%	37%	39%	38%	32%
% Medicaid FFS Claims	0%	29%	25%	24%	24%	25%	21%	22%	20%	21%
% Medicaid HMO Claims	0%	20%	20%	22%	21%	22%	22%	21%	20%	22%
% Medicare Claims	8%	11%	13%	14%	14%	16%	19%	18%	22%	25%
Claim \$ Included (Std. Cost/ Billed)		\$28.9 B / \$51.6 B	\$34.4 B / \$64 B	\$36.8 B / \$67.5 B	\$40.1 B / \$70.9 B	\$44.5 B / \$74.1 B	\$43.7 B / \$88.8 B	\$44.5 B / \$93.9 B	\$50.1 B / \$106.8 B	\$51.7 B / \$101.3 B
Episodes of Care	7.3 M	18.8 M	23.1 M	23.9 M	23.9 M	23.1 M	25.7 M	26.1 M	28.2 M	24.9 M
Providers Included		88,171	95,214	90,956	97,246	106,551	103,172	344,659*	460,201*	516,315*
Time Period Covered	10/2006 - 12/2008	4/2008 - 6/2010	4/2009 - 6/2011	4/2010 - 6/2012	4/2011 - 6/2013	4/2012 - 6/2014	4/2013 - 6/2015	4/2014 - 6/2016	7/2015 - 9/2017	1/2016 - 3/2018
Data Mart Published	Oct-09	Oct-10	Oct-11	Nov-12	Dec-13	Oct-14	Oct-15	Oct-16	Jan-18	Aug-18

\*Increase due to increased accuracy with the WHIO Provider Registry and National Provider Identifier numbers to match providers

\*\*Publish date adjusted to coincide with calendar year

## Value of WHIO Information to the State

The WHIO information system is used to inform policy, strategy, and business decisions; to evaluate variation and identify best practices; and to monitor the impact of change over time. Examples of how WHIO information is being used to improve care outcomes and reduce costs are listed below.

- State agencies: Public health evaluations, inform the Wisconsin Mental Health and Substance Abuse Needs Assessment, and report results of the SeniorCare program to the Center for Medicare & Medicaid Services (CMS).
- Providers: Benchmark and monitor the quality of their care against best practices, compare the level of resources used (a proxy for cost) to streamline care processes, identify areas where waste can be safely removed and determine what care is being provided outside of their system (a precursor to population health management and value-based purchasing).
- Health plans and employers: Identify high performing providers and variation in resource use to build high-value networks and inform value-based purchasing.
- Statewide quality improvement organizations (Wisconsin Collaborative for Health Care Quality [WCHQ] and Surgical Collaborative of Wisconsin) - prioritize, benchmark and monitor their improvement activities.
- Wisconsin Hospital Association: Augments its hospital charges with professional services charges so that consumers can learn more about the cost of health care via wipricepoint.org.
- Health services researchers: Identify the most effective ways to organize, manage, finance, and deliver high-quality, cost-effective care.

## **WHIO 2.0: Meeting Information Needs into the Future**

In 2016-2017, the WHIO board of directors conducted multiple customer evaluations, as well as a national landscape assessment of the use cases, business models, and technologies offered by other states through their APCDs.

From its customers, WHIO learned organizations would like prebuilt reports and dashboards, easier to use data files, shorter processing time from final claim to inclusion in the information system, access to additional data types integrated with the claims data, and education to assist in making the information more actionable. Examples of additional data types include Medicare Fee-for-Service claims, clinical data such as laboratory and other biometrics, allowed amounts for cost transparency, socio-economic indicators of health, and patient reported information, such as functional status.

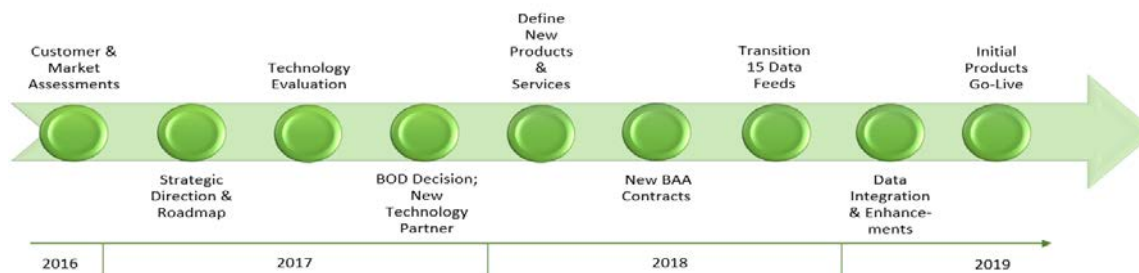
The landscape assessment of other states' APCDs indicated other states' legislatures and state agencies are significant users of their information to:

- Support and monitor public policy.
- Allocate resources to areas of greatest need.
- Monitor and report on public health issues.
- Monitor drug costs and utilization including opioid use.
- Identify cost drivers and their impact on access to care.
- Identify overuse of services that are not supported by evidence.
- Compare care provided to the Medicaid population with the commercial population.
- Complete health plan reports and monitor compliance with licensure requirements.
- Expand health services research.

From these evaluations, it was determined that Wisconsin organizations would like to use information from WHIO in ways the current technology system would not support. Subsequently, WHIO conducted a technology vendor Request for Proposal, which led to the selection of a new technology partner, SymphonyCare. SymphonyCare is headquartered in Madison, Wisconsin, and has been providing health information technology services for over 20 years. In addition to their existing data management, patient engagement, and care coordination solutions, SymphonyCare had the right partnership and innovative spirit to support the creation of WHIO 2.0 and future growth of WHIO as the information needs of Wisconsin evolve.

Since August 2018, WHIO has worked with its data contributors to transition their Business Associate Agreements and their data submissions to the new WHIO data warehouse being built by SymphonyCare. In June 2019, new WHIO products became available, including a new de-identified Standard Integrated Data file to allow for longitudinal evaluations and a de-identified Enhanced Data file to allow for easier analyses. These products will be delivered through a secure FTP portal to organizations that want to use their own analytical tools to create information specific to their business needs. In addition, pre-built dashboards and reports on key performance indicators compared to state level benchmarks, along with other high-priority reports, are available to health systems and health plans through a secure web-enabled reporting system. Finally, WHIO continues to provide custom analytics and report services. Figure 1 shows the WHIO 2.0 development timeline and Appendix A provides more information on the suite of WHIO products and services.

Figure 1: WHIO 2.0 Development Timeline

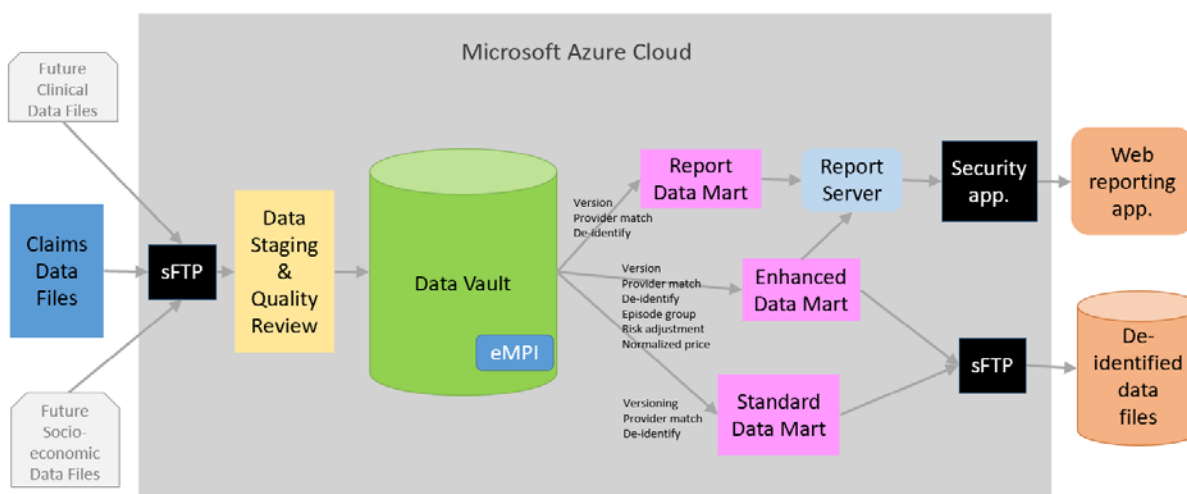


Beyond these initial products, WHIO will create additional data files and reports specific to prioritized policies, improvement opportunities, and populations. In the second half of 2019, WHIO will add Wisconsin’s Medicare Fee-for-Service claims, increasing the number of Wisconsinites in the information system by more than 600,000 insured lives.

WHIO and WCHQ are also partnering to integrate their respective claims and clinical data assets to create the nation’s first statewide value reporting system. Among other uses, this information will support the WCHQ Value Acceleration Initiative through reports that include quality process and outcome results, tied to utilization and imputed cost information by health system for Wisconsinites with multiple chronic conditions. These comprehensive reports will shine a light on the three components of affordability—waste, price and overall health—and create a platform for a statewide improvement agenda based on Wisconsin’s priorities, from which benefits plans and alternative payment models will be designed.

These opportunities are enabled by WHIO's state-of-the-art technology platform, which will be able to accommodate additional data types and uses of the information as customer needs evolve. Figure 2 presents a high-level overview of the WHIO 2.0 technology platform.

Figure 2: WHIO 2.0 Technology Platform

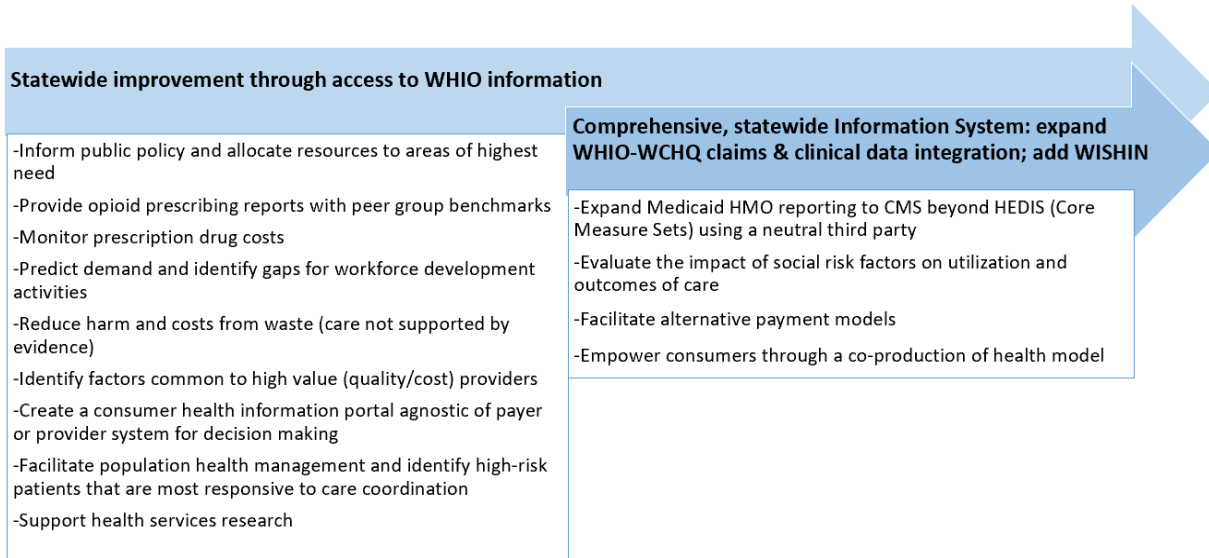


Other states have found utility in using their APCDs for drug cost evaluation, opioid reporting, monitoring disease prevalence, and to evaluate state programs. Enabled by their APCDs, Colorado, Maine, Minnesota, Missouri, and Oregon have completed a state-to-state comparison of the total cost of care. This information is used across and within each state to facilitate conversations about areas for policy changes and health care improvements and to provide information to consumers for decision

making. The state of Delaware used their APCD to create a state health care cost benchmark, which led to the establishment of an advisory group to develop consensus-based recommendations.

Similarly, WHIO 2.0 could be used to bring objective information to policy discussions to ensure limited state resources are directed to where they will have the greatest impact. A vision to an integrated statewide information system is outlined in Figure 3.

Figure 3: Innovations Enabled by WHIO



## Business Model

Under the current WHIO business model, revenue is earned through sales to health plans, health systems, employer coalitions, and associations that are interested in using WHIO information. To increase revenue and achieve long-term economic sustainability, WHIO is exploring alternative revenue models and developing new customer segments.

While most states have made submission of claims data to their APCD mandatory, Wisconsin has relied on voluntary contributions of data from private and public payers. Historically, voluntary submission of claims by commercial payers has been broad based and resulted in a reasonably comprehensive data set representing the entire state. More recently, some large national health plans have stopped submitting their data and others are considering ending their voluntary contribution of data. This will limit WHIO’s ability to fully represent the health care services provided across Wisconsin. More data contributors lead to a more robust information system for the benefit of all.

The WHIO believes that access to comprehensive claims information from all payers provides substantial public benefit for Wisconsin. WHIO encourages the State to leverage its position as a major purchaser of health care to create a vision of collective responsibility for health optimization and affordable health care services, and to use the WHIO information system to develop and monitor policies and programs. WHIO encourages the State to provide incentives to the small number of insurance companies who are not currently providing data to WHIO, as well as self-funded employers. The State could also access Federal, State and other funding sources to support WHIO and expedite the development of a comprehensive information system in partnership with other Wisconsin data organizations.

## **Summary**

Improving the value of health care is imperative for the economic health and vitality of Wisconsin. Doing so will require transparency of cost and quality information that can only be achieved if claims and clinical data are aggregated and transformed into useful information that is accessible to policy makers, health care providers, clinicians, insurance carriers, employers, and consumers. Ideally, this information would include social factors that influence health, as well as nonclinical social and support services funded by public and private sources.

In 2018, WHIO transitioned from its inaugural technology system to a state-of-the-art, flexible information system capable of meeting many of Wisconsin's information needs today and into the future. This transition has been informed by the WHIO's customers, DHS, and others who are seeking objective information to improve health and the health care delivery system. WHIO is now poised to serve as a critical information resource for Wisconsin.



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### CUSTOM ANALYTICS

HELP ME DECIDE



### PROVIDER PORTFOLIO

BUILD A BETTER REGISTRY



### DATA DRIVEN DECISIONS

TEACH ME HOW



# HOW DO YOU COMPARE?

## AND COMPARED TO WHAT?



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