2016 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

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). The 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.

The WHIO is a collaborative, public-private partnership established in 2005 to drive improvements in the quality, safety, efficiency, and cost of health care. The WHIO is governed by a multi-stakeholder board of directors (BOD) that includes providers, purchasers, insurance payers, and state agencies. The BOD includes representatives from the following organizations:

- Department of Health Services
- Employee Trust Fund
- Anthem Blue Cross Blue Shield of Wisconsin
- Greater Milwaukee Business Foundation on Health
- Humana
- Security Health Plan
- The Alliance
- United Healthcare of Wisconsin
- Unity Health Plan
- Wisconsin Education Association (WEA) Trust
- Wisconsin Physicians Service (WPS) Health Insurance
- Wisconsin Collaborative for Healthcare Quality (WCHQ)
- Wisconsin Hospital Association (WHA)
- Wisconsin Medical Society (WMS)

The WHIO’s initial goal was to create a centralized repository of aggregated administrative medical and pharmacy claims data for Wisconsin. While the WHIO information is commonly referred to as a “Data Mart,” it is a highly sophisticated information system. The transformation from disparate pieces of data to information is achieved through a series of steps that starts with the integration of over 300 million claim records 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. Today this information is used by a variety of organizations to generate comparative performance information on providers and physicians, evaluate population health, and perform additional analysis on the delivery of health care. The WHIO’s longer-term goal was to disseminate public reports on health care quality, safety, and efficiency in a consumer-friendly format to support decision making. This goal was met with the formal launch of MyHealthWI.org public reporting website in March of 2015.
Value of the WHIO Information to the State

Today, over 30 organizations are using information obtained from the WHIO to improve the value of care provided to Wisconsin citizens. This includes state agencies such as the DHS Division of Medicaid Services and Division of Public Health, Office of Health Informatics, and the Department of Employee Trust Funds, as well as 14 provider systems, 18 health plans, two employer coalitions, and researchers at the University of Wisconsin Madison and the Medical College of Wisconsin. The WHIO information has been used by state agencies to evaluate population health, inform the Wisconsin Mental Health and Substance Abuse Needs Assessment, and support key initiatives including several analyses for the State Innovations Model (SIM) Design Grant.

Provider systems use the WHIO information to benchmark and monitor the quality of their care against best practices; compare resource use by system, clinic, and individual physician; and to identify areas where waste can be safely removed from care processes. Health plans are also using the WHIO information to identify high-quality, low-cost delivery systems as they work to build high value networks and to differentially pay providers based on value.

Operations

Since its inception, the WHIO has utilized a third party, currently The Lewin Group, as its data intake, processing, hosting, and analytic/reporting vendor. A new Product Schedule was signed with The Lewin Group in December 2016 so that current services will continue. Since 2014, the WHIO has invested significant effort into addressing data quality issues identified in previous data marts. This ongoing effort was initiated with a root cause analysis that identified issues and action steps to improve the overall integrity and quality of the WHIO information. Key areas of concern included: 1) inaccurate or missing data elements in submitted claims, 2) inaccurate provider/physician data, and 3) insufficient quality control review within the data processing steps. To address these issues, the WHIO added a staff member to work closely with data contributors so that changes to their claim submission are addressed in advance of the initiation of the six-month data mart cycle. This led to a significant improvement in the quality and completeness of the underlying claims and file structures. The WHIO also created a new software application, the Provider Registry, to collect more accurate provider and physician data than was available through the data contributors or other sources of physician data. The Provider Registry is populated by the health systems so that changes to physician affiliations are updated regularly. The next step is to add physician extenders (e.g., physician assistants and nurse practitioners) to the Provider Registry so that care initiated by physician extenders can also be evaluated. Finally, the WHIO worked with The Lewin Group to develop a series of automated and human quality control reviews and reports throughout the processing cycle so that decisions can be made to include, correct, or exclude claims data depending on the impact of each issue (see Figure 1).
Currently, an estimated 73% of Wisconsin’s covered lives are included in the WHIO Data Mart. To improve the ability to produce comprehensive comparative performance reports for health care providers throughout the state, the WHIO continues to pursue health care claims data from as many sources as possible. In June 2014, the Group Insurance Board voted to require that all health plans seeking to provide benefits to state employees must submit their claims data to the WHIO and meet the WHIO’s claims submission requirements. This incentive had a significant positive impact on engaging health plans that were not already contributing their claims to the WHIO. More data contributors means a more robust data mart, which benefits not only the data mart users, but also the state as it studies public health issues. While most states require submission of claims to WHIO like organizations, Wisconsin has continued to rely on a voluntary system. Voluntary participation in the WHIO limits its ability to fully represent the quality and utilization of the health care delivery system across the entire state and the quality of the data.

Each data mart contains a rolling 27 months of claims and is produced on a six-month cycle. Each new version is referred to as data mart version (DMV) followed by the sequential number of the edition. The first public use data mart, DMV2 was released in October 2009 with the most recent release, DMV16, available in October 2016. With each release of the data mart, the volume of aggregated data has increased and the data mart has become more robust and useful. Table 1 provides general facts for every other data mart highlighting the increase in information available.
The Affordable Care Act presented an opportunity for the WHIO to become approved by the Center for Medicare & Medicaid Services (CMS) as a Certified Qualified Entity under the federal statutes to obtain and publicly report Wisconsin’s Medicare Fee-for-Service (FFS) claims when combined with the commercial claims. This opportunity was made possible, in part, by the efforts of Senator Tammy Baldwin and Speaker of the House Paul Ryan. The Medicare FFS data represents approximately 900,000 Wisconsin lives, a significant portion of the current gap in covered lives in the WHIO Data Mart. The WHIO received Phase I (Entity Requirements) Certified Qualified Entity approval in July of 2013. Following Phase II approval (Security), the WHIO obtained the Wisconsin Medicare FFS claims files for the two-year period ending September 2014 and combined that data with its DMV13 to test its ability to combine this data and determine what additional value may be gained from the addition of the Medicare FFS claims. In August 2016, the WHIO completed the final step of certification, Phase III (Public Reporting) and has subsequently obtained an expanded Data Use Agreement from CMS. While CMS Certified Qualified Entity status may provide additional opportunities for Wisconsin to evaluate care provided, there are limitations on who may access this information, as well as the WHIO’s ability to recuperate its cost of providing it.

To assure compliance with federal and state patient privacy, confidentiality, and anti-trust laws and regulations, The Lewin Group removes all patient, commercial payer, and employer identifiers from the WHIO Data Mart in the claims data aggregation process. The WHIO BOD developed and approved a Data Use Agreement in December 2008, which guides the appropriate use of the data mart by the WHIO and all data mart users. The agreement is reviewed annually by the BOD, and revised as appropriate, to ensure it continues to comply with current law and incorporates policies developed by the WHIO BOD.
Health Care Provider and Physician Engagement

The Wisconsin Hospital Association (WHA) has assisted the WHIO by hosting multiple regional meetings about the WHIO and demonstrations of its reporting capabilities. They also helped to engage provider organizations in the use of the WHIO information as a key business asset for market and services evaluation as well as quality and cost improvement efforts.

The Wisconsin Medical Society (WMS) has also been very supportive through its physician engagement efforts. In 2010, the WMS convened and facilitated multiple Wisconsin Health Improvement Zone–Community Improvement Dialogues (WHIZ–CIDs). Each multi-stakeholder group included primary care and specialty physicians, nurses, social workers, psychologists, employer representatives, researchers, and data analysts. The groups met monthly to examine the WHIO information and discuss how it can be used to increase the value of care provided to their patients.

In 2016, the WHIO supported WHIZ-CIDS 2.0, which focused on variation in echocardiography in Wisconsin. This topic was selected based on the WHIO information indicating that radiology services account for over $1 billion per year in billed charges (8% of total charges) and that there is significant variation in the use of these services across the state. The WHIZ-CIDS 2.0 team met six times over a three-month period to study the WHIO information and apply their experience to better understand the use of echocardiograms. The team identified the leading diagnoses associated with echocardiography and quantified the difference in use by region, health system, clinic site and physician. A similar pattern of higher and lower utilization was also found within other cardiology services. The team also identified potential drivers of this variation including the low risk of this procedure to patients, underutilization of or lack of access to a cardiologist, lack of awareness of nationally accepted “appropriate use” criteria, and positive financial incentives to utilize echocardiograms under fee-for-service reimbursement contracts. The WHIZ-CIDS 2.0 project is an example of how the WHIO can drive statewide reductions in the cost of care provided in Wisconsin.

Over the past five years, the WHIO has offered several opportunities for all health care stakeholders in Wisconsin to engage in discussions of how to realize value from the WHIO information. Starting in 2011, the WHIO has hosted learning forums featuring national and state-based speakers. National speakers presented on topics such as the value of regional health improvement organizations, payment reform, and accountable care organizations. State-level speakers have provided multiple presentations of the practical applications of the WHIO information including benchmarking, health services research, bundled payment modeling, and claims re-pricing as examples of how Wisconsin organizations are integrating the WHIO information into their business models.

The WHIO has produced over 50 organization-specific presentations designed to answer common business questions and demonstrate the value of the WHIO information. The WHIO has also conducted user group meetings, webinars, and customized on-site training sessions to ensure a common understanding of the data mart and reporting software. In 2016, online training modules were developed to facilitate 24x7 “on-demand” access to training. An information sharing web portal is also available, which includes multiple documents about the reporting software and detailed release notes for each data mart.
Business Model
The WHIO revenue model is based on an annual fee from organizations that receive the WHIO Data Mart and the State of Wisconsin contract. Increasing sales has been paramount to the WHIO’s long-term sustainability and has served two purposes: 1) advancing the sources of data for aggregation and reporting, and 2) increasing revenue. However, the number of data contributors in the state is finite with all but one Wisconsin health plan contributing data and receiving access to the data mart in 2016. In addition, the number of organizations that currently possess the analytical resources capable of using this rich information system is limited. This is due to frequent turnover of health system and health plan analytical staff, as well as the large volume of complex information contained in each data mart. In response, the WHIO has tested the option of creating user-friendly reports for organizations that would prefer to “off load” the analytical function to the WHIO staff. This product offering has started to increase the understanding of the value proposition and increase access to the WHIO information. In 2017, WHIO will market this service as an alternative product.

Research activities are a growing source of interest and potential revenue for the WHIO. While the WHIO has provided information to researchers over the past few years, revenue has been very small to date as most requests have been from individual researchers without grant funding. However, the opportunity to use the data collected by the WHIO to meet the needs of grant-funded projects is currently being evaluated through a project with the University of Wisconsin Health Innovation Program. If successful, this project could be a prototype for future uses of the information to support large scale research.

As with all organizations, the cost of doing business has increased for the WHIO over the past few years, in part driven from an increase in the price of services from The Lewin Group. The WHIO BOD has initiated an evaluation of a new pricing model for 2018, as well as options to increase revenue through new products and services. In addition, the WHIO BOD engaged a market research firm in 2016 to complete a customer needs assessment to determine how the WHIO is meeting current needs and identify opportunities to meet future information needs as health care continues to transform from fee-for-service to a value-based, patient-centric system.

Public Reporting and Health Literacy
In August 2012, the WHIO convened a multi-stakeholder workgroup to discuss, research, and evaluate public reporting options. The workgroup was tasked with developing recommendations to address the state contract requirement of public reporting of provider performance. The WHIO BOD, upon the workgroup’s recommendations, convened a Public Reporting Implementation Advisory Workgroup in January 2013 to guide the implementation of a consumer-level public reporting initiatives. The WHIO developed a detailed project plan and selected a software development firm to produce a prototype website, which was shown to groups of physicians to obtain feedback. The firm then made modifications based on this feedback and delivered Version 1.0 of the website for testing by practitioner and consumer focus groups leading to Version 2.0. In 2015, the WHIO debuted its public reporting website, MyHealthWI.org, with clinic level ratings available by regions of the state or by clinic (see Figure 2 below). The ratings are based on primary care quality and utilization measures aggregated to create “easy to understand” results for consumers. The launch was accompanied by a public relations and media campaign.
In addition to the MyHealthWI.org website, several commercial payers and one employer coalition have begun to publish performance reports, in part based on the WHIO information on their member-facing Web sites.

To increase consumer awareness and use of the MyHealthWI.org website and fulfill its contract requirement, the WHIO worked with public and private sector stakeholders to outline a project, measurable outcomes, research design, and an implementation plan for a health literacy program. Between 2014 and 2016, the WHIO partnered with Wisconsin Health Literacy, a division of Wisconsin Literacy, Inc. and Covering Wisconsin (a program located in the University of Wisconsin’s School of Human Ecology and formerly known as Covering Kids and Families – Wisconsin) to implement the health literacy program titled “Consumer Engagement & Activation through Health Literacy.” The goals of this project were to 1) assist consumers in their understanding of health care quality and value, 2) engage consumers in decision making using information on the MyHealthWI.org website, 3) raise awareness among health care organizations of the importance of effective consumer communication, and 4) teach health care organizations how to support consumers in becoming active partners in their care. These goals were supported through a series of activities including the development of consumer materials (see Appendix A) and workshops for consumers, “train-the-trainer” classes with health care provider staff, and completion of health literacy assessments with a limited number of health care organizations. This work achieved very positive outcomes with 77% of consumers indicating that they were “likely to prepare more for a doctor visit.” In addition, a 60-day post workshop survey indicated that 46% “had looked for information on quality of care,” 54% “had asked more questions in a doctor visit,” and 41% “chose primary care over an emergency department visit.” The “train-the-trainer” workshops showed that professionals who attended the trainings were up to 32% more confident talking about health insurance topics with consumers than their counterparts who did not attend the training.
In 2017, the WHIO will continue its partnership with Wisconsin Health Literacy and Covering Wisconsin to expand the materials distribution and train-the-trainer classes to other health care organizations, and to evaluate interest among health plans and provider systems in a health literacy assessment and recognition program.

**Summary**

In 2016, the WHIO expanded on many of the goals that it has worked on since its inception. Additional strides were made in further increasing the breadth of organizations using the WHIO information to drive value in Wisconsin’s health care delivery system. The stability and quality of the claims data that underlies the data mart also continued to improve, instilling greater trust and understanding of the value of this information asset. In addition, the WHIO BOD has taken actions to evaluate new product offerings, as well as current and future information needs that the WHIO can fulfill. Finally, the WHIZ-CIDS 2.0 echocardiography variation reduction project and the health literacy program development work are examples of how the WHIO’s robust information system can accelerate a measurable reduction in the overall cost of care and stimulate improvement in the health of Wisconsin citizens.
Appendix A: Sample Consumer Education

HEALTH INSURANCE MARKETPLACE
also known as: Obamacare, healthcare.gov, the Marketplace

GETTING STARTED

1. Choose a plan with premiums that you can afford every month.

A premium is the monthly payment you make to the insurance company for your health care policy.

2. Find a plan that will help you pay the out-of-pocket costs.

Out-of-pocket costs are NOT included in your monthly premium. This is the amount you must pay during a year for your health care in addition to your premium. This includes any deductible, co-pay, co-insurance, or extra costs for services.

Deductible:
The amount you need to pay before the insurance company will start to pay its part.

Co-pay:
The fixed amount you pay for a service.

Example:

doctor’s visit $100

$20 co-pay

you pay $20

Insurance pays $80

Co-insurance:
The percentage you pay for a service.

Example:

doctor’s visit $100

30% co-insurance

You pay $30

Insurance pays $70

This project is supported by Wisconsin Health Information Organization, Inc and Inova Reilly Baldwin Wisconsin Idea Endowment, & Wisconsin Department of Health Services.
Costs of Using Health Care

Before you buy a plan, ask:

- What hospitals / clinics are in-network? Is my doctor or specialist covered?
- How much will I pay to see my doctor or a specialist?
  - What is the co-pay?
- How much will prescriptions cost with this plan?
- How much will I pay to use the ER? If I get an ER bill for $1,000 or $10,000, what will be my cost?
- How much will I pay before the insurance company pays a share?
  - What's my deductible?
- What is the maximum amount I pay for health care in a year?
- What is the out-of-pocket max?

Monthly Premium

Pay $_________ /month

Out-of-Pocket Cost

1. Pay full cost
   Pay full amount for services until deductible is paid.
   This includes the full cost, including co-pays, for all doctor visits, emergency room visits, and specialists.

2. Split the cost
   Pay part of the bill and the insurance company will pay most of the bill.

3. Pay nothing
   The insurance company pays the full amount of the bill for covered services.

Cost per Visit

<table>
<thead>
<tr>
<th>Before Deductible</th>
<th>After Deductible</th>
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<tbody>
<tr>
<td>Primary Dr.</td>
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<tr>
<td>Specialist</td>
<td></td>
</tr>
<tr>
<td>Emergency Room</td>
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<tr>
<td>Prescriptions name-brand</td>
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<tr>
<td>Prescriptions generic</td>
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1. Schedule an appointment with your provider.
   
   A. Call your primary care provider and ask to make an appointment.
   
   B. Put your appointment date and time in your calendar and phone.

   - Cancel your appointment if you cannot make it.

2. What to do before your appointment:
   
   A. Write down names of medicines and vitamins you are taking, health concerns, and questions.

   B. Bring the name and address of a pharmacy where you will pick up prescriptions.

   C. Make sure you have reliable transportation to get to your appointment.

   D. Go to your appointment at least 15 minutes early. You will need time to do paperwork.

This project is supported by Wisconsin Health Information Organization, Ia and Inera Reilly Baldwin Wisconsin Idea Endowment, & Wisconsin Department of Health Services.
3. What to do during your appointment:

A. Tell your doctor your health concerns and questions.

B. Ask what tests are right for your age.

C. Write down instructions the doctor gives, or ask the doctor to write them.

D. Repeat the instructions back to your doctor to make sure you understand.

E. If you don’t understand something, ask the doctor to tell you again.

F. Tell your doctor if you don’t understand or don’t want what he or she is saying.

Some more common questions:

What is this test for?
When will I get the results?
Are there alternative treatments?
What hospital is best for my situation?
Why do you recommend this treatment?
Does this medicine have any side effects?
Will this medicine react with something I’m already taking?
How many times have you done this surgery or procedure?

⚠ At the doctor’s office, you may pay a co-pay.

If you haven’t met your deductible, you will also get a bill in the mail.

If you have met your deductible, call your insurance company if you get a bill for more than the co-pay of your service.

4. What to do after your appointment:

A. Read the instructions from your doctor.

B. Go to the pharmacy to pick up prescriptions.

C. Talk to the pharmacist about how to take the medicine.

⚠ If you do not understand your doctor’s instructions, call the doctor’s office.