State of Wisconsin Medicaid Health Information Technology (HIT) Plan

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1 OVERVIEW

The Wisconsin Medicaid Health Information Technology Management Plan serves as a guiding document to convey the organization’s overarching health information technology (HIT) vision and objectives. The Management Plan enables the Wisconsin Department of Health Services (DHS) Division of Medicaid Services (DMS) to coordinate more effectively with other areas within DHS and support a consistent approach to future HIT investments. The EHR Incentive Program is part of the CMS Promoting Interoperability Program; see the SMHP Section 5: Communications and Outreach Plan, for information on the rebranding effort in Wisconsin.

The Management Plan is organized as follows:

**Organizational Overview:** Provides a summary of the organizational assets impacting the development and execution of the State Medicaid HIT Plan (SMHP).

**Medicaid HIT Vision and Objectives:** Includes DMS’s HIT vision and objectives, detailing strategies to assist DMS in meeting established objectives.

**Critical Success Factors:** Defines the critical success factors to be considered when implementing new strategies.

**HIT Landscape Assessment:** Provides an overview of the current state of HIT adoption in Wisconsin, including:

- **Certified Electronic Health Record Technology (CEHRT) Adoption and Use:** Identifies the level of CEHRT adoption and use in the state, and details how DMS estimates participation rates and sets annual goals for the Wisconsin Medicaid Electronic Health Record (EHR) Incentive Program.
- **Broadband Assessment:** Highlights the current status of broadband access in Wisconsin.
The following section details Wisconsin’s organizational assets impacting the construction and execution of the SMHP.

Figure 2.01: State of Wisconsin Organizational Overview.
2.1 DHS

DHS is one of the largest and most diverse state departments in Wisconsin with an annual budget of roughly $11 billion and over 6,100 employees. DHS’s thousands of employees, along with local counties, health care providers, and community partners, among others, work together to protect and promote the health and safety of the citizens of Wisconsin.

DHS oversees Medicaid, the single largest program in the state budget, and other health and social service programs. DHS activities include alcohol and other drug abuse prevention, mental health, public health, implementation of long-term care, disability determination, and regulation of state nursing homes and numerous other programs that aid and protect the citizens of our state. DHS also oversees seven 24/7 institutions: three centers for the developmentally disabled; a facility for mentally ill inmates; two psychiatric hospitals; and a facility for treating sexually violent persons.

2.1.1 Office of the Secretary

The Office of the Secretary is responsible for the management of the communications team, area administration, tribal affairs, legislative affairs, and opioid initiatives. The Office of the Secretary serves as the primary link for DHS to develop internal and external communications, organize the broad range of program areas within 72 local county human service agencies, and maintain effective relationships with 11 Wisconsin tribal governments. The Office of the Secretary also includes the Director of Opioid Initiatives and Legislative Affairs. Related to legislative affairs, there have not been any statutory or regulatory changes directly affecting the eHealth and Quality Program this year, at the state level.

2.1.2 Division of Medicaid Services

The Division of Medicaid Services (DMS) is responsible for administering medical assistance (Medicaid), BadgerCare Plus, SeniorCare, chronic disease aids, general relief, Family Care, Family Care Partnership, IRIS (Include, Respect, I Self-Direct), and children’s long-term care services. DMS is responsible for the administration and oversight of the Medicaid EHR Incentive Program, staffed by the eHealth and Quality Team. The EHR Incentive Program sits within the Bureau of Benefits Management (BBM) in DMS. BBM manages provider and managed care policy and oversees the Medicaid Quality Strategy. eHealth and Quality Team staff provide support and advisory services to BBM and all of DHS regarding HIT. Program integrity services for the EHR Incentive Program are an ongoing shared responsibility between program staff in DMS and the Office of the Inspector General (OIG).

2.1.2.1 eHealth and Quality Program Director

The eHealth and Quality program director is responsible for formulating and leading the development of, advocating for, and overseeing the implementation of policy initiatives that foster adoption of CEHRT, secure health information exchange (HIE) at a state and national level, and related initiatives, such as the Wisconsin Health Information Organization’s All-Payer Claims Datamart (APCD) and public reporting initiative, to achieve Wisconsin’s health care delivery transformation goals. The eHealth and Quality program director also has fiduciary responsibility and decision-making authority for DHS’s eHealth and Quality program. The eHealth and Quality program director is responsible for leading, formulating, determining, and coordinating HIT and HIE policy, planning, budgeting, and implementation activities across DHS; with federal and other state and local government agencies; and with private sector providers and institutions to achieve statewide adoption and impactful use of EHR technology and HIE in Wisconsin. The eHealth and Quality program director oversees the administration of the Medicaid EHR Incentive Program.
2.1.3 Division of Enterprise Services

The Division of Enterprise Services (DES) oversees financial management, information systems and technology, personnel and employment relations, and affirmative action and civil rights compliance. DES also handles purchasing, strategic sourcing and contract administration, facilities management and capital budget, project management, and other administrative services. It is responsible for billing, collection, and related accounting for state institutions. DES oversees the department’s regional offices, local relations activities, and county human service programs.

2.1.4 Division of Care and Treatment Services

The Division of Care and Treatment Services (DCTS) manages programs that provide community mental health and substance abuse services. It also administers DHS’s institutional programs for people whose mental needs or developmental disabilities cannot be met in a community setting. DCTS operates two psychiatric hospitals and three secure treatment facilities that provide care and treatment for persons with mental illness and/or sexually violent behavior. DCTS is also responsible for client rights reviews and investigations at the institutions and in the community and for the Community Forensics program.

2.1.5 Division of Public Health

The Division of Public Health (DPH) is responsible for providing public health services to the people of Wisconsin. DPH includes programs that address communicable and chronic diseases; health promotion; environmental, occupational, and family and community health; emergency medical services; and injury prevention. It is also responsible for issuing birth, death, marriage and divorce certificates, and collects statistics related to the health of Wisconsin residents. There are seven program and service areas within DPH. The bureaus described below coordinate directly with the eHealth and Quality program staff on projects and Public Health Meaningful Use reporting.

2.1.5.1 Office of Health Informatics

The Office of Health Informatics (OHI) has a primary responsibility to collect, maintain, and provide vital records for the citizens of the state; to collect, protect, disseminate, and analyze health care and population-based health data needed to conduct critical state business; and to integrate and manage major public health-related information systems. OHI assists DMS by delivering data, data sets, analysis, and technical assistance services that support the administration of Wisconsin’s Medicaid program.

2.1.5.2 Bureau of Communicable Disease

The Bureau of Communicable Diseases (BCD) is responsible for the prevention and control of communicable diseases in Wisconsin. BCD provides surveillance and epidemiological follow-up of more than 70 reportable communicable diseases. It is also responsible for monitoring scientific advances in the field of communicable disease prevention and control research, and for incorporating those that are appropriate into public health practice. BCD’s responsibilities are allocated into four sections: AIDS/HIV, Communicable Disease Epidemiology, Immunizations, and Sexually Transmitted Diseases. The Immunization Section of BCD is responsible for operating the Wisconsin Immunization Registry (WIR).

2.1.5.3 Bureau of Community Health Promotion

The Bureau of Community Health Promotion has a primary responsibility to provide a statewide model of integrative public health programming across the life span. Major functions include: statewide development and implementation of program practices and policies; development of federal grant applications;
development and enforcement of standards and guidelines related to chronic disease, family health including children with special needs, injury, nutrition and tobacco prevention control; and evaluation of existing and proposed legislative proposals. The eHealth and Quality Team collaborates on grant initiatives related to using data and technology to improve quality of care.

2.1.5.4 Office of Preparedness and Emergency Health Care

The Office of Preparedness and Emergency Health Care (OPEHC) is responsible for public health and hospital preparedness, classification of Level 3 and Level 4 trauma centers, and the licensing of emergency medical services in Wisconsin. This office collaborates on syndromic surveillance efforts in Wisconsin by participating in the BioSense Platform, operated by the Centers for Disease Control and Prevention (CDC) National Syndromic Surveillance Program.

2.1.6 OIG

OIG has department-wide responsibilities for auditing the use of department funds in support of the department's commitment to be an effective steward of the public resources DHS is entrusted to manage. OIG, which reports directly to the DHS Secretary, conducts audits of providers who receive department funds, performs internal audits of department programs and operations, and investigates allegations of fraud, waste, or abuse of DHS resources by contractors, providers, and recipients. OIG is also responsible for working with DHS program divisions and partners to develop policies and practices to prevent fraud, waste, and abuse. Program integrity work for the EHR Incentive Program is a continuous process of pre- and post-payment surveillance, verification, and auditing shared by DMS and OIG. OIG focuses mainly on post-payment audits.

2.1.7 Office of Legal Counsel

The Office of Legal Counsel (OLC) is an office within DHS that serves the DHS Secretary and acts as a resource for DHS as a whole. The mission of OLC is to provide effective and accurate legal services and advice to DHS. To accomplish this, OLC provides formal legal opinions, communicates informal legal advice, litigates DHS cases in administrative hearings, assists the Attorney General's office in court litigation, offers formal and informal advocacy on behalf of DHS’s programs, and provides training and guidance in investigation methods and legal issues, among other things.

2.1.8 Office of Policy Initiatives and Budget

The Office of Policy Initiatives and Budget (OPIB) provides policy and research services and department-wide budgeting. OPIB is responsible for monitoring federal policy developments, supporting strategic policy initiatives, and developing grants. OPIB is also responsible for the development of budget proposals and related analyses.

2.2 Other State Partners

DMS collaborates with other state agencies and quasi-governmental agencies to promote HIT and meaningful use of CEHRT.

2.2.1 Wisconsin Department of Safety and Professional Services

The Department of Safety and Professional Services (DSPS) is responsible for ensuring the safe and competent practice of licensed professionals in Wisconsin. DSPS also administers and enforces laws to assure safe and sanitary conditions in public and private buildings. It provides administrative services to the state occupational regulatory authorities responsible for regulation of occupations and offers policy assistance in such areas as
evaluating and establishing new professional licensing programs, creating routine procedures for legal proceedings, and adjusting policies in response to public needs. DSPS administers the Prescription Drug Monitoring Program (PDMP) and collaborates with DPH, DMS, and OIG by sharing PDMP data with these divisions.

2.2.2 Wisconsin State Laboratory of Hygiene
The Wisconsin State Laboratory of Hygiene (WSLH) is the state’s public, environmental and occupational health laboratory. The Electronic Laboratory Reporting (ELR) system is responsible for managing the electronic delivery of laboratory results to DPH. The WSLH information technology (IT) system is connected with systems at 52 hospital laboratories in Wisconsin and five national laboratories. Another 24 hospital labs in Wisconsin, Minnesota, and Ohio send results via a secure web portal. After being assigned identifier codes, these test results are sent via a secure system to the Wisconsin Electronic Disease Surveillance System (WEDSS), where staff at local health departments and DPH can view the results and respond as needed to prevent further disease spread. WSLH also electronically reports results from tests it performs to the CDC for a variety of infectious disease pathogens.

2.2.3 Wisconsin Department of Veterans Affairs
The Wisconsin Department of Veterans Affairs (WDVA) provides 24-hour skilled nursing care to our nation’s heroes. The WDVA operates three homes – Chippewa Falls, King and Union Grove - serving nearly 1,000 veterans and their spouses. All homes use PointClickCare for medical and financial management. Though PointClickCare provides an electronic record for all services performed in the homes, information sharing and integration challenges require most orders and transitions of care documentation to be shared on paper, and then inputted into PointClickCare.

2.2.4 University of Wisconsin Extension Broadband and E-Commerce Education Center
The University of Wisconsin Extension Broadband and E-Commerce Education Center (UW Extension) assists local stakeholders in implementing strategies to attract broadband investments by providing education and training.

2.3 External Stakeholders
DMS works in collaboration with a number of organizations to encourage the adoption and meaningful use of CEHRT and HIT. Figure 2.01 provides a depiction of the relationships that exist between DMS and its partners.

2.3.1 Federal Partners
2.3.1.1 Centers for Medicare & Medicaid Services
The Centers for Medicare & Medicaid Services (CMS) is a federal agency within the U.S. Department of Health and Human Services (HHS) that administers the Medicare program and works in partnership with state governments to administer Medicaid, the State Children's Health Insurance Program (SCHIP), and health insurance portability standards. CMS is a partner in the administration and oversight of the Medicaid EHR Incentive Program through development of the federal regulations governing program. CMS also provides technical assistance and support to DMS through the administration of community of practice calls and regional office staff resources.

1 Adapted from: https://www.cms.gov/.
2.3.1.2 Office of the National Coordinator for Health Information Technology

The Office of the National Coordinator for Health Information Technology (ONC) is a staff division of the Office of the Secretary within HHS. It is primarily focused on coordination of nationwide efforts to implement and use HIT and the electronic exchange of health information. ONC defines the certification criteria for CEHRT and works closely with CMS to align these criteria with the Meaningful Use requirements.

2.3.1.3 Indian Health Service

The Indian Health Service (IHS) is an operating division (OPDIV) within HHS. IHS is responsible for providing medical and public health services to members of federally recognized tribes and Alaska Natives. IHS is the principal federal health care provider and health advocate for tribal members, and its goal is to raise their health status to the highest possible level. IHS collaborates with DMS to support the efforts of the tribal health centers in the state; their efforts include the provision of Meaningful Use consultants to the tribal health centers to encourage adoption efforts.

2.3.1.4 CDC

The CDC is a federal agency within HHS. The CDC collaborates with its federal partners (CMS and ONC) on HIT policy development and in defining criteria for Meaningful Use. Additionally, CDC works with other national partners to develop policies, guidelines, and methods and to promote a shared vision for how public health interacts with the health care community. CDC works with Health Level 7 (HL7), Integrating the Healthcare Enterprise (IHE), and other standard development organizations on development and implementation of interoperable messaging and vocabulary standards and implementation guides. The CDC National Syndromic Surveillance Program is a collaboration among public health agencies and partners for timely exchange of syndromic data to improve the nation’s situational awareness and responsiveness to hazardous events and disease outbreaks. Wisconsin’s DPH OHI collaborates with the National Syndromic Surveillance Program to assist Wisconsin providers in submitting data to the BioSense Platform.

2.3.2 HIT Partners

The Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009 authorized and supported the establishment of a series of programs at the federal and state level to promote and expand the adoption of HIT. Wisconsin established key partnerships among these programs to ensure coordinated activities. While the grant funding for many of these programs has ceased, the partnerships and coordination activities continue under the leadership of the eHealth and Quality Team. The monthly Wisconsin HIT Program Coordination Meeting serves as an opportunity for each program to share information, obtain feedback, gain support for their initiatives, and ensure alignment across programs.

2.3.2.1 MetaStar

MetaStar is a quality improvement organization providing health care improvement and consulting services working with communities, providers, and insurers to transform care. MetaStar operates as an independent nonprofit organization with funding from federal and state government contracts. MetaStar provides technical assistance for basic Quality Payment Program support in Wisconsin, as part of the Lake Superior Quality Improvement Network and the Quality Payment Program Resource Center.

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2 Adapted from: https://www.healthit.gov/.
3 Adapted from: https://www.ihs.gov/.
4 Adapted from: http://www.cdc.gov/.
Through the Wisconsin Health Information Technology Extension Program, MetaStar supports health care providers in Wisconsin to increase their health IT maturity through the adoption, implementation, upgrade, and meaningfully use of CEHRT. This assistance is funded by DHS and is available to any Wisconsin Medicaid-enrolled providers eligible for the Medicare or Medicaid EHR Incentive Program.

2.3.2.2 Wisconsin Statewide Health Information Network

The Wisconsin Statewide Health Information Network (WISHIN) is the state-designated entity for HIE. In this capacity, WISHIN is responsible for governing HIE at a state level and overseeing the implementation of a statewide health information network and HIE services in Wisconsin. WISHIN’s goal is to improve patient-centered care and population health through the use and exchange of electronic health information. WISHIN is dedicated to bringing the benefits of widespread, secure, and interoperable HIT to patients and caregivers throughout Wisconsin. WISHIN offers multiple services, including secure clinical messaging using Direct through WISHIN Direct+, a community health record through WISHIN Pulse, a notification service for emergency department or hospital visits through the Patient Activity Report for Payers (PAR-P) and Providers (PAR-C), and automated public health reporting. In May 2015, WISHIN was certified to operate in Minnesota, enabling connectivity and interoperability for cross-border providers and patients. As of March 2018, over 1,360 facilities were connected through WISHIN. DMS leveraged WISHIN to integrate the immunization registry and Medicaid pharmacy data and create Medicaid HMO hospital encounter notifications. These projects and potential future projects, including a single data feed project with DPH and a care plan project with DMS, are discussed further in the SMHP Section 4: Technology Plan. Two WISHIN products, WISHIN Direct and WISHIN Pulse, are also discussed further in the SMHP Section 4: Technology Plan.

DHS holds statutory seats on the WISHIN Board of Directors, filled by the Administrator of the Division of Public Health, the DCTS Office of Electronic Health Records Systems Management Director, and the Deputy Secretary of DHS.

2.3.3 Quality Organizations

2.3.3.1 Wisconsin Collaborative for Healthcare Quality

The Wisconsin Collaborative for Healthcare Quality (WCHQ) is a multi-stakeholder, voluntary consortium of Wisconsin health care organizations that was created due to the recognition by key health care provider organizations in the state of the importance of performance measurement. WCHQ began by developing a unique set of ambulatory care measures that enable medical groups to collect and report data on all patients in their practice. These measures are constructed through a collaborative process, using workgroups made up of a broad representation from health care providers, purchasers, consumers and others. WCHQ members actively use these measures to drive internal improvement efforts and reach across organizations, sharing their knowledge and learning from the highest performers.

WCHQ sees performance measurement and public reporting as vital dual mechanisms for promoting greater transparency, improvement, efficiency, and equity within health care. WCHQ publicly reports measurement results through the online Performance and Progress Report, which allows any individual to access relevant, audited health care quality information while comparing health care providers and performance measures.

2.3.3.2 Wisconsin Health Information Organization

The Wisconsin Health Information Organization (WHIO) is a voluntary initiative supported by the health care community in Wisconsin. WHIO is a CMS Certified Qualified Entity, giving them access to Medicare fee-for-service claims data. The WHIO Datamart includes data over various time horizons, as reported by member
organizations, including Medicaid and Medicare fee-for-service data. Data from April 2013 to June 2016 includes over 916 million claims and represents approximately 75 percent of the Wisconsin population. By maintaining one of the most comprehensive sources of health claims information in the United States, WHIO provides member organizations with access to unparalleled information and analytic services to evaluate their current operations. In 2015, WHIO was selected to join the Total Cost of Care pilot program, led by the Network for Regional Healthcare Improvement and funded by the Robert Wood Johnson Foundation. This project was developed to identify the drivers of regional health care costs and develop strategies to reduce spending at the community level. WHIO also runs myhealthwi.org, a public reporting tool to help patients find doctors and take a more active role in their care.

As a member organization, DMS is able to access information to help staff in formulating new policies and programs. DMS plans to work to enhance staff's understanding of the data and tools available to them in order to fully capitalize on this unique set of data.

2.3.4 Provider Organizations

2.3.4.1 Rural Wisconsin Health Cooperative

The Rural Wisconsin Health Cooperative (RWHC) is owned and operated by 40 rural, acute, general medical-surgical hospitals. RWHC offers its members a wide range of shared services that meet local community health needs, including staffing, consulting, management, networking, and education. Specific services include HIT consultation and support, technology services, managed care contracting, credentials verification, quality indicators, recruitment services, legal services, clinical services, peer review, financial/coding consultation, and over 35 professional roundtables.

In the area of HIT, RWHC has been a leader in bringing the telecommunications and health-related applications to rural Wisconsin hospitals and other health care providers. In 2002, RWHC built the RWHC Wide Area Network (WAN), which was developed in response to the significant challenges rural providers face when trying to implement IT and telehealth projects. By pooling resources, RWHC and its members have been able to create a robust telecommunications infrastructure that allows for high performance and secure connectivity.

Currently, over 30 hospitals, clinics, regional providers, and others are connected to the WAN. In 2004, RWHC began to focus on developing mission-critical health applications using WAN. This led in 2007 to the development of the RWHC Information Technology Network (ITN)—an EHR and PACS platform and support organization with a shared staffing model. Over the next several years, RWHC ITN received a Federal Communications Commission (FCC) Pilot Program award, a Health Resources and Services Administration (HRSA) Critical Access Hospital HIT Network (CAHHIT) grant, and a United States Department of Agriculture Distance Learning and Telemedicine Electronic Medical Record loan/grant award. In 2011, RWHC received a sub-award from WHITEC, Wisconsin’s Regional Extension Center, to provide meaningful use-related technical assistance to Wisconsin’s rural hospitals. Under this scope of work, RWHC worked with over 40 Wisconsin rural hospitals and their affiliated clinics, providing meaningful use gap, financial, security, and quality improvement assessments. In 2013, RWHC ITN became a Healthcare Connect Fund consortium in order to apply for and process broadband subsidies for consortium members through the FCC Universal Administrative Company program. In 2014, RWHC was awarded a three-year HRSA Network Development grant to establish a rural hospital behavioral telehealth network, with the goal of improving patient access and outcomes by expanding behavioral health services to underserved rural areas of Wisconsin. Behavioral telehealth services went live at three RWHC member hospitals in 2016, and RWHC is currently working to recruit new behavioral
health practitioners to expand the program. Participating facilities will need to fully fund themselves in the future, as the funding period is near completion.

RWHC is a key stakeholder of the Wisconsin Medicaid EHR Incentive Program and supports communications and outreach activities.

2.3.4.2 Tribal Health Centers
Wisconsin has 11 tribal health centers serving the tribal communities in the state through support from both the Indian Health Services (IHS) and DHS through Medicaid programs. DHS meets with the tribal health directors monthly to ensure close collaboration and coordination. The tribal health directors receive regular information on the Wisconsin Medicaid EHR Incentive Program and are receiving ongoing support from both IHS and Medicaid in their efforts to adopt and meaningfully use CEHRT.

The Wisconsin eHealth Team conducts targeted outreach through direct communications with the tribal health centers. These communications provide tribal health centers with policy guidance, educational resources, and information on the status of their adoption of CEHRT and participation in the Wisconsin Medicaid EHR Incentive Program as compared to the rest of the state. These directed exchanges also provide information on technical resources available to the tribal health centers to assist in their efforts to meaningfully use CEHRT. Currently, nearly all tribes participate in the HIT Extension Program.

2.3.4.3 Wisconsin Dental Association
The Wisconsin Dental Association (WDA) has 3,000 member dentists and a number of dental hygienists. With just 3,500 licensed dentists in the state, the WDA is the leading voice for dentistry in Wisconsin. Members are committed to promoting professional excellence and quality oral health care.

DMS has used WDA as a mechanism to learn more about dentists in the state, their key issues, and their proclivity to adopt CEHRT. This collaboration has helped to inform the outreach strategy DMS has been and will be executing to promote the adoption of CEHRT and encourage participation in the Wisconsin Medicaid EHR Incentive Program.

2.3.4.4 Wisconsin Hospital Association
The Wisconsin Hospital Association (WHA) is a nonprofit membership group that advocates for the ability of its members to lead in the provision of high-quality, affordable, and accessible health care services, resulting in healthier Wisconsin communities. WHA provides advocacy and education services to its membership and helps hospitals in the state advance their adoption of CEHRT. WHA also gives providers access to important health information to assist in care coordination efforts.

WHA is a key stakeholder of the Wisconsin Medicaid EHR Incentive Program. They support outreach and communication activities. WHA also played a significant role in the calculation of patient volume for hospitals participating in the Wisconsin Medicaid EHR Incentive Program. Program Year 2017 marked the final year in which Wisconsin hospitals were eligible to receive payments from the Medicaid EHR Incentive Program, therefore the activities associated with the calculation of patient volume are no longer needed.

2.3.4.5 Wisconsin Medical Society
The Wisconsin Medical Society (WMS) is the largest physician advocacy organization in the state, with more than 12,800 members dedicated to the best interests of their patients. A trusted health policy leader and
professional development resource, WMS has a rich and proud history advancing the science and art of medicine. Through its advocacy efforts, WMS represents the unified voice of physicians statewide on state and national health care issues and provides members with information needed to navigate health care legislation and regulatory changes. WMS also provides innovative physician education and practice management resources and accredits continuing medical education programs.

WMS is a key stakeholder of the Wisconsin Medicaid EHR Incentive Program and supports outreach and communication activities.

### 2.3.4.6 Wisconsin Primary Health Care Association (WPHCA)

The Wisconsin Primary Health Care Association (WPHCA) is a member organization that supports and advances the work of the 18 Community Health Centers (CHCs) in Wisconsin. CHCs provide access to comprehensive, integrated, patient-centric and community-oriented care services, regardless of patient ability to pay, many offering medical, behavioral health, and dental services. WPHCA supports CHCs through training and technical assistance, government relations and advocacy work, and by providing information and public education on CHCs to the general public.

WPHCA’s work has helped to identify issues facing CHCs in the state as they relate to the adoption and use of HIT and has worked closely with the Wisconsin Medicaid EHR Incentive Program to collect feedback from providers as well as distribute ongoing information about the program.

WPHCA has continued the work it started through its partnership with MetaStar under the HRSA’s Health Center Controlled Network Project funding opportunity. WPHCA has been awarded their second three year grant to support activities that enable each participating health center to adopt a certified EHR, achieve Meaningful Use, improve population health and care management using HIE, continuing their transformation as recognized patient-centered medical homes, and achieving five or more on Healthy People 2020 outcome goals through quality improvement methods and technology. WPHCA has dedicated a great deal of resources to focus on integrated health services, providing enhanced support to dental providers in optimizing their use of health IT and meeting the requirements of Meaningful Use.

WPHCA is a key stakeholder of the Wisconsin Medicaid EHR Incentive Program. WPHCA participates in the monthly Wisconsin HIT Program Coordination Meeting and has a monthly meeting with the Wisconsin Medicaid EHR Incentive Program to review CHC participation in the program and discuss additional technical assistance needs to ensure the appropriate milestones are met by each clinic. WPHCA is the main point of contact for their CHCs and facilitates communications and outreach activities on behalf of the program.
3  MEDICAID HIT VISION AND OBJECTIVES

The Medicaid HIT vision, objectives, and strategies align with DHS’s mission to protect and promote the health and safety of the people of Wisconsin. Figure 2.02 summarizes the overarching vision and objectives guiding program and policy changes with impacts on HIT. The HIT vision and objectives enables DMS to avoid duplicative efforts and apply a cohesive, standard approach with specific actions to help administer programs and policies more effectively and efficiently.

The Medicaid HIT objectives also align with the Medicaid quality vision and goals. DMS has submitted an updated Medicaid Managed Care Quality Strategy, and HIT is a critical enabler of the desired shift toward paying for quality and value. The eHealth and Quality Team is supporting the ongoing evaluation, updates, and implementation of the Medicaid Managed Care Quality Strategy.
### HIT Vision:
Transform Wisconsin’s health care system through the use of integrated and flexible technologies that enable information sharing in support of quality, innovation, cost effectiveness, and value leading to improved individual and population health.

<table>
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<th>Objectives</th>
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| Increase member engagement in his or her care using a culturally competent approach | - Look for opportunities to implement tools for Medicaid Members that provide access to personal health information.  
- Create technology solutions that are culturally competent, user-friendly, and adaptable based on audience.  
- Assess HMO Contracts to identify opportunities to enhance Member use of self-service tools as a part of their patient engagement criteria. |
| Improve health of individuals and communities                   | - Conduct activities to promote the adoption and Meaningful Use of certified EHR technology.  
- Improve appropriate access to the right care, at the right place, and right time.  
- Provide technical assistance services to support adoption and meaningful use of CEHRT through the HIT Extension Center Program. |
| Advance administrative and operational efficiencies             | - Connect Medicaid to the Statewide Health Information Network to facilitate electronic transactions between providers and the Wisconsin Medicaid Agency.  
- Align administrative actions with business partners to improve information exchange between healthcare professionals and hospitals.  
- Evaluate options to connect Prior Authorization and the Wisconsin Disability Determination Bureau to provider records. |
| Improve access to comprehensive and quality data                | - Develop and implement an enterprise data architecture  
- Develop and implement user-friendly data analytic tools |
| Advance maturity of statewide collection, sharing, and use of health information | - Use the HIT Extension Program’s technical assistance to help advance providers collect, share, and use of health information.  
- Support the development of a Statewide Health Information Network providing access to the community health record to the patient and at the point of care. |

*Figure 2.02: State of Wisconsin Medicaid HIT Vision and Objectives.*
4 CRITICAL SUCCESS FACTORS

The following factors were identified as critical for DMS and other DHS divisions to successfully achieve their objectives. The critical success factors are placed into five categories: Data Management, Performance Management, Training and Communications, Stakeholder Engagement, and Project Management.

4.1 Data Management
- **Data Access:** Ability to access near real-time or real-time business and clinical data for program management and decision-making purposes.
- **Data Integration:** Ability to access a comprehensive and person-centric view of data to assist in the development of policies that consider all aspects of the Medicaid member.
- **Data Integrity:** There must be a high level of confidence in the quality of the data for decision-making purposes.

4.2 Performance Management

**Project Performance Measurement:** Development and implementation of a methodology to measure the success of investments of both time and money and the ability to track how investments are being made and the impact of those investments.

4.3 Training and Communications
- **Analytics:** Implementation of ongoing mandatory role-based training in the use of analytics tools and technologies needed to prepare staff for their responsibilities.
- **Privacy and Security:** The sensitivity of personal health information is an important area requiring continuous staff training. Continue to emphasize the importance of privacy and security and the potential implications of breaches.
- **Collaboration:** Implement policies and procedures emphasizing the importance of communication and coordination across divisions and departments.

4.4 Stakeholder Engagement
- **Critical Mass (Adoption by Stakeholders):** Obtain the support of broad stakeholder groups to support the success of new initiatives.
- **Partner and Stakeholder Engagement:** Engage partners and stakeholders in the development of new policies and decision-making process. By bringing stakeholders into the process early, they are owners of the change and act as advocates for the initiatives.

4.5 Project Management
- **Strategic Plan:** Decision-making must be done with a focus on the business goals/objectives and targeted outcomes.
- **Incremental Approach:** An incremental approach for new policies that includes pilot programs and proofs of concepts. This will enable the testing of policies prior to full-scale implementation and enable stakeholders to adjust to changes in the operations of DMS.
• **Resource Allocation**: Plan for and allocate appropriate levels of funding, staff, and time throughout the duration of the project lifecycle to help ensure the successful completion of projects initiated.

• **Quality Assurance**: Use standardized tools, processes, and methodologies to monitor outcomes throughout the system design lifecycle.
5 HEALTH IT LANDSCAPE ASSESSMENT

This section provides relevant excerpts from the Wisconsin HIT Landscape Assessment, which can be found on the Wisconsin eHealth Program website. In Wisconsin, the Health IT Landscape Assessment is the CMS-required Environmental Scan.

5.1 CEHRT Adoption and Use

Health IT, including EHRs, HIE, telemedicine, patient portals, and electronic clinical quality measures, is transforming the health care industry and driving improvements in coordinated care, patient engagement, quality, and enhanced outcomes in the delivery of health care.

Currently, the most widely used measure of health IT maturity is the EHR adoption rate, or the percentage of a defined provider group actively using an EHR. According to ONC, Wisconsin surpasses the national averages for both physicians and hospitals in adopting EHR technology.i

- Ninety-three percent of all physicians have adopted an EHR, with 83% adopting a certified EHR.
- Ninety-seven percent of non-federal acute care hospitals have adopted a certified EHR.

Excerpts from this assessment provide analysis of certified EHR adoption rates and health IT maturity for Wisconsin’s Eligible Hospitals and Eligible Professionals relative to their participation in the Medicare and/or Medicaid EHR Incentive Programs. This population represents a targeted subset of the overall Wisconsin health professional landscape, as EHR Incentive Program participation is subject to several eligibility requirements, and as such, reflects different EHR adoption rates than the broader provider population to which ONC data speaks. Examining CEHRT adoption, meaningful use advancement, and vendor landscape of this specific population uncovers insights as to how health IT is current impacting both the state Medicaid population as well as the broader health landscape in Wisconsin.

The data was obtained through the CMS public use files and the Wisconsin Medicaid Agency’s data warehouse. Data was collected and analyzed for Program Years 2011–2016, which occurred between August 2011 and April 2017.

5.1.1 Eligible Hospital CEHRT Adoption and Meaningful Use Progression

Since Program Year 2013, all Wisconsin Eligible Hospitals have participated in the Medicare and Medicaid EHR Incentive Programs. Through Program Year 2016, 100% have achieved Meaningful Use, and over 75% have maximized participation in the respective programs.

- For the Medicaid program, 119 out of 123 hospitals have participated for the maximum of three years.
- For the Medicare program, 97 out of 121 hospitals have participated for the maximum of four years.

Over two-thirds of Eligible Hospital participation has been consecutive, resulting in a large proportion completing the program as early as possible. The earliest hospitals could complete participation in the Medicare and Medicaid EHR Incentive Programs were Program Years 2013 and 2014, respectively.
Half of the Medicaid Eligible Hospitals completed their participation in the first three years the program was available. Similar rates of completion occurred for Medicare Eligible Hospitals, however, not until Program Year 2015. As only the Medicaid program offered the ability to attest to AIU and most hospitals are dually eligible for both programs, 54% of Medicare participation initiated in Program Year 2012.

Looking forward, there is only one hospital eligible to participate in Program Year 2017 for its final incentive payment in the Medicaid program. No additional participation for incentive payments is expected in the Medicare program. Program Year 2016 was the last year to initiate and after the first payment consecutive participation was required. An additional 24 hospitals participated for three years or less but were unable to receive four incentive payments because they did not participate consecutively for at least one payment year.

Figure 5.02 displays the highest stage of Meaningful Use Eligible Hospitals attested to in the Medicare and/or Medicaid EHR Incentive Program. Note that Eligible Hospital distribution across counties varies; the figure depicts the proportion at each stage. Six Eligible Hospitals completed Medicaid participation at Stage 1, with another three hospitals discontinuing before completing participation. The remaining achieved the highest stage currently available, Modified Stage 2.
5.1.2 Eligible Professional CEHRT Adoption and Meaningful Use Progression

Eligible Professionals encompass a much broader population than Eligible Hospitals; as of January 2018, approximately 19,730 Wisconsin Medicaid providers are estimated to be eligible through Program Year 2016 for the EHR Incentive Programs. Wisconsin Medicaid providers continue to actively participate in the Medicaid and Medicare Incentive Programs, increasing cumulative participation year over year.

Program Year 2016 was the last year Eligible Professionals could initiate participation, with 530 providers attesting for the first time. Overall, approximately 68% (3,922 of 5,794 providers estimated to be eligible) have participated in the Medicaid EHR Incentive Program and 54% (7,587 of 13,938 providers estimated to be eligible) have participated in the Medicare program.
Figure 5.03 shows participation in each program year relative to the total number of providers who had previously initiated participation. While the cumulative number of participants has continued to increase, individual program year participation has declined as the program has continued. Participation is not required to be consecutive, which may contribute to the variation year to year; however, over half of participants through Program Year 2015 came back in 2016.

In reviewing EHR Incentive Program statistics, both the retention rates (percentage of program participants who have participated in more than one program year) and the advancement through the stages of Meaningful Use provide insight into whether providers are maturing their health IT capabilities and finding value in continuing in the EHR Incentive Program.

Figure 5.04 displays the cumulative number of years of participation for Eligible Professionals, broken out by the year they initiated participation. Excluding Program Year 2016, at least half of Wisconsin Eligible Professionals have participated consecutively, leading to many providers participating in the maximum possible number of program years. For example, of the approximately 5,000 providers who initiated participation in Program Year 2012, 53% received their fifth payment in 2016, meaning they participated in each year of the program from 2012 to 2016.

Eligible Professionals may choose to skip participation for several reasons, including other resource-heavy priorities like programmatic or technology projects. Of the Eligible Professionals that did not participate consecutively, 41% skipped only one year of participation, with another 24% skipping two years.
Program Year 2016 was the first year Eligible Professionals could have maximized their participation in either EHR Incentive Program. In Figure 5.04, the sixth and final incentive payment is represented by the gray portion of the bar for those with initial participation in Program Year 2011. As of December 2017, Wisconsin has one of the top five percentages of Eligible Professionals receiving their sixth and final incentive payment, 4.8%, exceeding the national average of 2%.ii

Most Wisconsin Eligible Professionals are maximizing their advancement through the program as well, with 74% having achieved the highest stage of Meaningful Use available, Modified Stage 2, and another 14% having attested to Stage 1 through Program Year 2016. Figure 5.05 displays the geographic distribution of the highest stage of provider attestations. Counties have been shaded to reflect the EHR participation rate, calculated as the percentage of the total estimated Eligible Professional population participating in either EHR Incentive Program.

Looking forward, overall EHR Incentive Program participation is expected to decrease significantly beginning in Program Year 2017—first and most substantially, due to the Medicare EHR Incentive Program concluding after Program Year 2016, which will reduce the EHR Incentive Program population by almost 70%; and second and more gradually, due to Eligible Professionals completing participation in the Medicaid EHR Incentive Program. While not included in the participation statistics, Eligible Professional attestations to the Medicare EHR Incentive Program to avoid reimbursement adjustments ended in Program Year 2016. Starting in Program Year 2017, Medicare providers will be required to participate in the Quality Payment Program (QPP).
5.1.2.1 Eligible Professional Provider Type Participation Rates

Eighty-six percent of Eligible Professionals fall under the physician provider type (primarily doctors of medicine and doctors of osteopathy). Therefore, the overall Eligible Professional program year participation and retention rates primarily reflect those of physicians. In looking across the remaining provider types within the Eligible Professional population, however, there is a range of EHR Incentive Program involvement.

<table>
<thead>
<tr>
<th>Provider Type</th>
<th>Medicare EHR Incentive Program</th>
<th>Medicaid EHR Incentive Program</th>
<th>Total Participants</th>
<th>% of Total EHR Program Participants</th>
<th>EHR Participation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician</td>
<td>7,579</td>
<td>2,305</td>
<td>9,884</td>
<td>86%</td>
<td>70%</td>
</tr>
<tr>
<td>Nurse Practitioner</td>
<td>Not Applicable</td>
<td>1,144</td>
<td>1,144</td>
<td>10%</td>
<td>28%</td>
</tr>
<tr>
<td>Physician Assistant</td>
<td>Not Applicable</td>
<td>30</td>
<td>30</td>
<td>&lt;1%</td>
<td>Not Applicable^5</td>
</tr>
<tr>
<td>Dentist</td>
<td>8</td>
<td>443</td>
<td>451</td>
<td>4%</td>
<td>29%</td>
</tr>
<tr>
<td>Total</td>
<td>7,587</td>
<td>3,922</td>
<td>11,509</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 5.06: Summary Statistics for Cumulative Eligible Professionals in the Medicare vs. Medicaid EHR Incentive Program through Program Year 2016

EHR participation rate calculated as the number of participating Eligible Professionals over the number estimated to be eligible. Nurse Practitioner includes nurse service and certified nurse midwives, including mental health practitioners.

Similar to participation, Eligible Professional retention also shows a significant amount of variation when broken out by provider type, as shown in Figure 5.07.

Physicians have the lowest proportion of providers at one year of participation and the highest proportion with five years of participation. While over three-quarters of dentists have only one year of participation, the remaining dentists’ participation is strikingly similar to the average program participant (3.3 years and 3.4 years, respectively).

Nurse practitioners and physician assistants have similar retention for both one and two years of participation; however, nurse practitioners are almost six times more likely to participate in their second year immediately following their first year.

Progress to achieve Meaningful Use differs among provider types as well. Physicians have made the most progress, with 79% of

^5Due to the restriction on physician assistant eligibility, only those participating in the Medicaid EHR Incentive Program are considered eligible for the program.
participants attesting to Modified Stage 2 as of their most recent attestation, followed by physician assistants (47%), nurse practitioners (52%), and dentists (16%).

While most dentists are not advancing past AIU, there is evidence to suggest that later certified EHR editions may afford a more achievable path to Meaningful Use; in the last two program years, when providers were required to use the minimum 2014 edition, 28% of participating dentists attested to Meaningful Use. This is more than twice the 10% that achieved Meaningful Use through Program Year 2014.

### 5.1.2.2 FQHCs and Tribal Health Centers

In Wisconsin, there are over 30 organizations classified as FQHCs, including tribal health centers, providing health care services to low-income populations in underserved areas with low access to care. These organizations have locations in 60% (43 of 72) of counties, serving just under 856,619 Medicaid members.iii

Eligible Professionals at these organizations have higher participation rates (93% and 81%, respectively) compared to the average of participating providers (58%) but, at the same time, have demonstrated lower rates of retention and advancement to Meaningful Use. Figure 5.09 shows the distribution of the years of participation for providers at these organizations, as well as for overall program participants. While there is some variation across FQHCs and tribal health centers, these organizations have a markedly lower proportion of providers with participation over three years. The only exception to this trend is FQHCs show a much higher percentage of providers completing their sixth year of participation.

FQHCs and tribal health centers also have a higher percentage of providers who participate for an initial AIU payment and do not return to the program for Meaningful Use attestation. On average, only 28% of Wisconsin

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<table>
<thead>
<tr>
<th>Eligible Professional Provider Type</th>
<th>Meaningful Use Advancement through Program Year 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician</td>
<td>![Bar Graph](Figure 5.08: Eligible Professional Provider Type Meaningful Use Advancement through Program Year 2016)</td>
</tr>
<tr>
<td>Nurse Practitioner</td>
<td>![Bar Graph](Figure 5.08: Eligible Professional Provider Type Meaningful Use Advancement through Program Year 2016)</td>
</tr>
<tr>
<td>Physician Assistant</td>
<td>![Bar Graph](Figure 5.08: Eligible Professional Provider Type Meaningful Use Advancement through Program Year 2016)</td>
</tr>
<tr>
<td>Dentist</td>
<td>![Bar Graph](Figure 5.08: Eligible Professional Provider Type Meaningful Use Advancement through Program Year 2016)</td>
</tr>
</tbody>
</table>

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![Bar Graph](Figure 5.09: Eligible Professional Organization Retention)
tribal health center Eligible Professionals and 49% of FQHC Eligible Professionals have achieved the highest stage of Meaningful Use available, Modified Stage 2, compared to 74% overall.

Figure 5.10 reflects certified EHR adoption and Meaningful Use advancement in FQHCs and tribal health centers through Program Year 2016 relative to providers estimated to be eligible but not participating. The counties have been shaded to reflect the Medicaid population rate, calculated as the percentage of the county’s population enrolled in Medicaid. Note that for many counties there are either no Eligible Professionals at these organization types or no applicable organizations, represented by the dark gray pie charts.

<table>
<thead>
<tr>
<th>FQHCs</th>
<th>Tribal Health Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Map of FQHCs]</td>
<td>![Map of Tribal Health Centers]</td>
</tr>
</tbody>
</table>

**Figure 5.10: Eligible Professionals Organizational Meaningful Use Advancement through Program Year 2016**

There are two factors to consider in reviewing the retention and advancement of these providers:

**Provider Type Distribution:** As noted previously, Meaningful Use advancement rates vary substantially by provider type. FQHCs and tribal health center providers are more evenly distributed across physician, nurse practitioner, and dentist provider types than the overall population; they have an equal percentage of physicians and dentists (39% and 38%), with nurse practitioners comprising the remaining 23%.

Across this dimension, most advancement rates are similar to the overall program. There are some marked differences, of particular note:

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6Physician assistants were excluded due to their low representation overall. There is one physician assistant participating with an FQHC, representing 0.2%. For the overall program, physician assistants make up 0.3% of the population.
• Although physicians make up less than half of the FQHC and tribal health center participants, AIU attestation rates for FQHC and tribal health center physicians are markedly higher than the overall program (18% and 26%, respectively)
• Despite having the lowest progression to Meaningful Use across provider types, FQHC dentists have attained Modified Stage 2 at twice the rate of overall program participants.

When taken together, this may explain why the average retention and advancement rates for these organizations falls lower than the program as a whole.

**Certified EHR Vendor Capabilities:** Beginning December 16, 2015, providers using Indian Health Services’ Resources and Patient Management System for their 2014 edition certified EHR have been unable to complete the onboarding of their data to the system’s Network Master Patient Index and Network Health Information Exchange. These providers were therefore unable to attest to Meaningful Use for EHR Incentive Program payments potentially in Program Year 2015 and continuing through Program Year 2016.

Indian Health Services has been working with CMS to document a Medicare hardship exception process, which may minimize the impact to the providers; however, the lowered advancement for tribal health centers is estimated to be directly impacted by this issue. Seven of the 12 tribal health centers initiated participation in the EHR Incentive Program using their product, though two tribal health centers have since switched to other vendors. The remaining five tribal health centers comprise 25% (28 of 110) of the Eligible Professionals at tribal health centers. Removing the providers unable to attest using Indian Health Services’ EHR increases the average Meaningful Use achievement of tribal health centers to 43%.

**5.1.3 CEHRT Vendor Landscape**

A large number of certified EHR vendors have been used to attest EHR Incentive Programs, but the overwhelming majority of attestations have been with a few select vendors. While there is some overlap between the Eligible Hospital and Eligible Professional vendors, Epic Systems and Cerner Corporation, not all top vendors are represented in both landscapes.

Within each provider space, the top vendors have consistently maintained their market share through software migrations and vendor and health organization consolidations, with minimal changes in the last two program years. Given this consistency, the market share is expected to continue to remain stable throughout the remaining program years.

**5.1.3.1 Eligible Hospital Certified EHR Vendor Landscape**

Wisconsin Eligible Hospitals attesting to the EHR Incentive Programs have used 28 different certified EHR vendors throughout Program Years 2011–2016. The Eligible Hospital market share is relatively diverse across a
number of vendors, although almost three-fourths of vendors have less than 5% market share. Eligible Hospitals attesting to the EHR Incentive Programs have used the top five vendors in 81% of most recent attestations.

In Figure 5.12, market share reflects the vendor used for the most recent EHR attestation. When reviewing the vendor distribution, note the market share of most of the top vendors is conflated, as approximately 30% of certified EHRs used by hospitals include multiple vendor software packages.

Within the top five vendors, that percentage increases to 58%, with only Epic Systems and Cerner Corporation being primarily used as single-vendor certified EHRs. When examining the remaining top vendors, most are used exclusively as multivendor certified EHRs, with significant overlap across the top five vendors:

- Ten of the attestations using Orion Health, Truven Health Analytics, LOGICARE® Corporation, and Ministry Health Care technology were used together.
- Seven of the eight Marshfield Clinic attestations made use of the above combination of vendors, and the remaining hospital’s certified EHRs includes Cerner Corporation.
- Three attestations used a combination of Orion Health and Truven Health Analytics with the addition of MEDHOST and MEDITECH.

As mentioned previously, an additional aspect of the vendor landscape to consider is the certified EHR edition, which is influenced by the initial participation year and continued hospital eligibility. Most hospitals completed their participation in the EHR Incentive Program prior to Program Year 2015, meaning they were not required to upgrade to a 2014 edition as part of program participation. Despite this, 91% of final attestations made use of a 2014 edition. The vendor market share for 2014 edition certified EHR technology mimics the program overall, with Epic Systems and Cerner Corporation leading as primarily single vendor certified EHRs, followed by multivendor combinations across the remaining top vendors.

There are only seven hospitals that either completed the program, or were unable to continue participation due to skipping, on 2011 edition certified EHR technology. For these hospitals, the most prevalent vendor was a combination of Orion Health, Truven Health Analytics, LOGICARE® Corporation, and Ministry Health Care. This combination comprised three of the attestations, with one hospital also including MEDHOST and two including EHR Doctors, Inc., a vendor that fell off in later editions. Additionally, all six attestations using the 2015 edition utilized Epic Systems as a single vendor and occurred in Program Year 2016.

5.1.3.2 Eligible Professional Certified EHR Vendor Landscape

Eligible Professionals attesting to the EHR Incentive Programs have used 134 different certified EHR vendors throughout Program Years 2011–2016, with an average per program year of 79 vendors.
Despite the high number of vendors, the market share is dominated by a handful; providers have attested with the top five vendors in 91% of their most recent attestations. The market share is also primarily made up of certified EHRs containing a single vendor; only 10% of attestations use certified EHR technology with a combination of different vendor products.

Given the duration of the EHR Incentive Program to date, consideration to a provider’s initial participation year and the certified EHR edition should be given when examining the vendor landscape.

The majority of Eligible Professionals (83%) initiated participation between Program Years 2011 and 2013, with 98% using 2011 edition certified EHR technology. In order to continue participation in later program years, these organizations would have had to upgrade to 2014 edition (required beginning in Program Year 2015) and/or 2015 edition (required in at least a hybrid combination for Stage 3 attestation).

To date, over 75% of most recent attestations reflected the minimum 2014 edition, with 10% of Program Year 2016 attestations using 2015 edition certified EHR technology. All attestations using 2015 edition certified EHR technology utilized Epic Systems.

The heat map in Figure 5.14 depicts the top five vendors and the number of participating Eligible Professionals using a combination of the vendor’s certified EHR product and most recent attestation. Note that in Program Year 2013, less than 1% of last attestations made use of hybrid 2011 and 2014 editions; these attestations are represented in both the “2011 Edition” and “2014 Edition” columns.

<table>
<thead>
<tr>
<th>Vendor</th>
<th>Program Years 2011-2013</th>
<th>Program Years 2013-2014</th>
<th>Program Year 2015</th>
<th>Program Year 2016</th>
<th>Most Recent Attestation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epic Systems</td>
<td>986</td>
<td>600</td>
<td>1,390</td>
<td>4,536</td>
<td>7,427</td>
</tr>
<tr>
<td>Cerner Corporation</td>
<td>102</td>
<td>55</td>
<td>103</td>
<td>729</td>
<td>989</td>
</tr>
<tr>
<td>Marshfield Clinic</td>
<td>216</td>
<td>120</td>
<td>119</td>
<td>623</td>
<td>1,078</td>
</tr>
<tr>
<td>GE Healthcare</td>
<td>79</td>
<td>23</td>
<td>45</td>
<td>166</td>
<td>313</td>
</tr>
<tr>
<td>NextGen Healthcare</td>
<td>89</td>
<td>7</td>
<td>33</td>
<td>118</td>
<td>247</td>
</tr>
<tr>
<td>Greenway Health LLC</td>
<td>135</td>
<td>3</td>
<td>34</td>
<td>114</td>
<td>315</td>
</tr>
<tr>
<td><strong>Total Attestations</strong></td>
<td><strong>1,970</strong></td>
<td><strong>965</strong></td>
<td><strong>1,911</strong></td>
<td><strong>6,744</strong></td>
<td><strong>11,509</strong></td>
</tr>
</tbody>
</table>

Figure 5.14: Eligible Professional Top Five Vendor Attestation and Count of Distinct Vendors by Program Year and Certified EHR Edition

The vendor market share from 1–5 is represented by darkest (green) to lightest (gray) shading.
With the exception of providers who last attested on 2011 edition certified EHR technology, the three most prevalent vendors have been consistent throughout all program years, with the fourth and fifth spots varying across three vendors: GE Healthcare, NextGen Healthcare, and Greenway Health LLC\(^7\). When comparing across the last two program years, there is little change in the top five vendor market; Epic Systems’ market share decreases by 5%, with Cerner Corporation and Marshfield Clinic’s increasing by 5% and 3%, respectively.

### Certified EHR Vendor Analysis by Provider Types

An examination of the certified EHR vendor landscape by provider type reveals additional variation in the vendor market share, although there are a handful of vendors consistently comprising between half and three-quarters of the overall market share.

The breakdown by provider type for most recent attestation contains at least three of the overall top five certified EHR vendors, with the order varying by provider type.

- Physicians and nurse practitioners have the most similar makeup both to each other and in their overall top five vendors, with the primary difference being the second vendor; after Epic Systems, physicians most use Cerner Corporation whereas nurse practitioners most use Marshfield Clinic.
- In addition to sharing vendors with the overall top distribution, physician assistants and dentists have different certified EHR vendors rounding out their top five.

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\(^7\)Greenway Health, LLC encompasses the solutions provided by Vitera Healthcare Solutions (including Sage), SuccessEHS, and Greenway Medical Technologies. These organizations were consolidated in 2013 by Vista Equity Partners.
When compared to the market share of the previous program year, there are no significant changes in Program Year 2016 except for the dentist market. Due to the closeness in market share, the top seven vendors are shown, including new vendors, e-MDs and Exan Enterprises, as well as a more even distribution across the top vendors. The order is also adjusted; both Henry Schein/Dentrix and Patterson Dental Supply were in the bottom of the top five in Program Year 2015, whereas in Program Year 2016, they round out the top three.

**5.1.3.2.2 FQHCs and Tribal Health Centers Certified EHR Vendor**

The vendor landscape for tribal health centers and FQHCs shows a wider distribution and additional vendors within their top five market share. As mentioned previously, dentists in the EHR Incentive Program are more represented within tribal health centers and FQHCs, which likely contributes to the presence of Henry Schein/Dentrix.
As compared to the market share through the previous program year, the only significant change when including Program Year 2016 is in the FQHC market share. Business Computer Applications had previously been in the top five vendors but has been replaced with Henry Schein/Dentrix.

Additionally, despite two tribal health centers switching vendors from Indian Health Service, as noted previously, there was not a substantial change to the market distribution as of the most recent attestations.

5.1.3.3 Geographic Distribution of Certified EHR Vendor Landscape

To better understand availability for interoperability and information exchange, the following graphics display the geographic concentration of the top five vendors used in the latest EHR Incentive Program attestations relative to the region and county Medicaid population. Examination at the regional level provides an increased granularity from the state level while accounting to some extent for health care systems and patients crossing county borders.

5.1.3.3.1 Eligible Hospital Certified EHR Vendors by Region

An examination of Eligible Hospital vendors at the regional level shows that except for the Southeastern region, no region is dominated by any one vendor.

As noted previously, most of the top vendors are used exclusively within multivendor certified EHRs, with significant overlap across the top five vendors: Truven Health Analytics and Orion Health have the most overlap, followed by LOGICARE® Corporation and Ministry Health Care, all denoted in green shades. Hospitals using these vendors are primarily located in the Northern region, with smaller market share in the Northeastern and Western regions.
5.1.3.3.2 Eligible Professional Certified EHR Vendors by Region

An examination of Eligible Professional vendors at the regional level shows only the Western region does not have a single vendor dominating the EHR market, although this region is almost exclusively made up of the top three vendors: Cerner Corporation, Epic Systems, and Marshfield Clinics.

Figure 5.17: Eligible Hospital Most Recent Attestation Vendor Concentration by Region

Regions denoted in varying shades of gray. Medicaid members served reflects average of all months in calendar year 2016.
5.1.3.3.3 Regional Comparison

As mentioned previously, several top vendors within the Eligible Hospital and Eligible Professional landscapes do not overlap. When examining the certified EHR technology landscape geographically, there are three regions where vendor differences across Eligible Hospitals and Eligible Professionals are most noticeable, shown in Figure 5.19.

- All three regions have a combination of Orion, Truven, LOGICARE Corporation, and Ministry Health Care certified EHRs utilized by Eligible Hospitals; however, these vendors are not represented in the Eligible Professional vendor market share.
- Similarly, all regions show top market share with MEDITECH and MEDHOST; however, these vendors are also not represented in the Eligible Professional vendor market share.
- On the Eligible Professional side, Marshfield maintains an almost 75% market share in the Northern region and, to a smaller extent, in the Western region but is not represented in a majority of hospitals (other than itself).
5.2 Program Year 2017 Goals

This section outlines the Medicaid EHR Incentive Program’s goals for provider participation for Program Year 2017. Wisconsin expects to finalize Program Year 2018 goals in June 2018, and will submit them to CMS in a future version of the SMHP.

5.2.1 Eligible Hospitals

DMS analyzed Wisconsin hospitals to determine potential eligibility in the Wisconsin Medicaid EHR Incentive Program. Through Program Year 2016, 119 out of 123 hospitals completed their third (final) year of participation, yielding a Medicaid program completion rate of 97 percent. In Program Year 2017, only one hospital was eligible for their third and final incentive payment from Wisconsin. None of Wisconsin’s hospitals are eligible to receive a Medicaid EHR Incentive in Program Year 2018 or beyond.

5.2.2 Eligible Professionals

This section describes the methodology to determine participation goals for Program Year 2017 for Eligible Professionals. The accuracy of the participation goals is impacted by federal rules and CMS guidance for Program Year 2017. Participation goals for 2017 were evaluated and projected in July 2017.

5.2.2.1 Methodology to Determine Eligible Professional Participation Goals

Participation goals were determined by identifying current Wisconsin Medicaid enrolled Eligible Professionals and using historical participation to estimate the number of attestations.

Wisconsin used the following methodology to identify providers estimated to be eligible for participation in the Wisconsin Medicaid EHR Incentive Program in Program Year 2017:
1. Identify all Eligible Professionals who have received at least one incentive payment but have not received their sixth incentive payment prior to Program Year 2017.

2. Remove Eligible Professionals who are known to have made a program switch to the Medicare EHR Incentive Program.

3. Remove Eligible Professionals with an inactive Wisconsin Medicaid enrollment status. Only include providers with an eligibility end date greater than December 31, 2017 or a current status of “Failure to Revalidate” and an eligibility end date within calendar year 2017.
   a. This step ensures Wisconsin is only including providers in the estimate who are either currently active or have been recently inactivated due to a failure to revalidate their enrollment as a Medicaid provider. Wisconsin includes providers in a “Failure to Revalidate” status because providers commonly enter into this status and then revalidate with Medicaid within 6 months following their eligibility end date.

4. 3,410 Wisconsin Medicaid enrolled providers were estimated to be eligible to participate in the Wisconsin Medicaid EHR Incentive Program in Program Year 2017.

   The attestation history of these 3,410 Eligible Professionals was analyzed, and based on their program participation behavior, providers were placed into one of the following categories:
   a. Consecutive participants: Participated consecutively in at least two prior program years and last attested in the most recent program year.
   b. Skipped and returned in most recent program year: Skipped at least one year before most recent program year and last participated in the most recent program year.
   c. Skipped and did not return: Skipped at least one year before the most recent program year and did not participate in the most recent program year.
   d. Initiated in the most recent program year.
   e. Did not participate in the two most recent consecutive program years.

   Percentages of providers expected to participate in Program Year 2017 were estimated for each category, derived from historical participation data, Health IT Regional Extension Center participation data, and assumptions formed from participation trends. The number of providers in each category was multiplied by the estimated percentage; totaled across categories, the final estimate for Program Year 2017 was 1,784 Eligible Professional attestations.

5.3 Broadband Assessment

This section explains where broadband internet access may pose a challenge to HIT/E in the state and introduces the interrelationships between Wisconsin’s consumer broadband access and state HIE projects. It also details several broadband grants the state has received to help overcome challenges to developing and sustaining a thriving HIE network in Wisconsin.

5.3.1 Wisconsin Broadband Access

Broadband services provide high-speed transmissions of data and uninterrupted access to rich media content. The FCC’s current technical definition of broadband is a fixed connection that meets the benchmark speed of 25 Mbps for downloads and 3 Mbps for uploads, thus, delivering a much faster internet connection than 56 Kbps dial-up access.8 Wisconsin provider and consumer access to broadband internet is a meaningful aspect of health care delivery. A 21st century patient-centered model of health care oriented toward improving health

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outcomes depends on the electronic transfer of health information, which requires increased broadband support across care settings. According to ONC, rural providers adopting and using HIT face a complex barrier:

- Lack of sufficient internet connectivity can interrupt the transmission of relevant patient data to ancillary health institutions.
- Poor broadband availability can affect a provider and consumer’s ability to access EHR data.
- Lack of broadband access can potentially limit a provider’s ability to leverage telehealth.

Providing statewide access to high-speed internet is a key to ultimately avoiding a “digital divide” of care.

The HIT/E model does not function properly without providers and consumers accessing health information through a dependable high-speed internet connection. Based on the FCC’s latest Broadband Progress Report, published in January 2016, 43 percent of the rural population in Wisconsin lacked access to a broadband service meeting FCC benchmark speeds. This is higher than the national average of 39 percent.

### 5.3.1.1 Wisconsin Broadband Speeds

As of February 2018, updates from the Federal Communications Commission 2018 Broadband Deployment Report, show that more than 86 percent of the population in Wisconsin (57 percent in rural areas, 99 percent in urban areas) now has fixed access to broadband at the benchmark download speed, compared to 92 (69 percent in rural areas, 98 percent in urban areas) percent of the nation. Wisconsin Broadband Maps from LinkWISCONSIN, the State Broadband Office of the Wisconsin Public Service Commission, are highlighted below.

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In 2010, the FCC National Broadband Plan identified mobile health as the new frontier in health innovation. The ConnectHealthFCC Task Force is an FCC initiative aimed at moving forward broadband and advanced health care technologies. The mission is, by identifying regulatory barriers, as well as incentives, and building stronger partnerships with public and private stakeholders in the areas of telehealth, mobile applications, and telemedicine, we seek to accelerate the adoption of advanced health care technologies — leveraging broadband and other next-gen communications services, highlighting promising health IT and telemedicine initiatives across the country and abroad, and expediting a vital shift to more ubiquitous, broadband-enabled health care solutions along the entire health and wellness continuum. This area is developing rapidly, and according to the Pew Research Center, the share of Americans with broadband at home has plateaued, and

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5.3.2 Wisconsin Broadband Initiatives

Increased broadband infrastructure and the creation of information sharing tools to leverage HIT infrastructure are highly regarded as the answer to bridging the digital divide and creating advances in patient-centered health care. In 2009, the American Recovery and Reinvestment Act provided $4.7 billion to the NTIA to support the deployment of broadband infrastructure, encourage sustainable adoption of broadband service, enhance and expand public computer centers, and develop and maintain a nationwide public map of broadband service capability and availability. In Wisconsin, numerous grants have impacted patient care by focusing on delivering broadband service to areas in need, improving HIT education and utilization, and building out high-speed networks through Community Anchors Institutions. NTIA funding supported a comprehensive technology center at the College of Menominee Nation and infrastructure grants for laying high-capacity fiber-optic cables connecting 129 institutions, including 54 health care entities, through the University of Wisconsin – Extension Service Building Community Capacity through Broadband Adoption project and the Metropolitan United Fiber Network.

The LinkWISCONSIN Initiative, part of the Public Service Commission of Wisconsin, made possible through the NTIA’s State Broadband Data and Development grant program, has been involved in the National Broadband Map project. Since 2009, members of this project have been assessing barriers to internet access, developing an online tool detailing statewide broadband coverage, and ultimately creating an interactive map that can link consumers to broadband providers in their area. This $4.52 million project has provided invaluable data to the strategic planning and implementation of future grants that have been used to build a sustainable broadband infrastructure in Wisconsin and increase access to health care. It continues to provide information and administer broadband improvement funding through the annual Broadband Expansion Grant Program.

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The FCC created the Connect America Fund in 2012 to focus on rural broadband build-out by providing funding to specific carriers in targeted areas. In 2015, the Connect America Phase II project provided carriers in Wisconsin with over $190 million.\(^{20}\)

DMS will continue to monitor the state’s overall broadband landscape as it directly affects the robustness of research data on health systems, as well as the expected benefits of Meaningful Use to members and providers.\(^{21}\)

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\(^{21}\)“Medicare and Medicaid Programs; Electronic Health Record Incentive Program—Stage 2,” *77 Federal Register* 171 (4 September 2012), pp.54144-54145.