

# Wisconsin State Health Innovation Plan



Healthier People. Health Care Value.

<https://www.dhs.wisconsin.gov/sim/index.htm>

January 29, 2016

## Table of Contents

<b>I. State Health Innovation Plan Executive Summary</b>	<b>7</b>
1. The Case for Statewide Alignment and Innovation	7
2. Wisconsin SHIP Tenets and Vision	8
3. advancing the ship	12
<b>II. Acknowledgements</b>	<b>16</b>
<b>III. Plan for Health and Healthcare Delivery Transformation</b>	<b>18</b>
1. Executive Summary	18
2. The health and Healthcare Transformation Model	19
2.1 Background	19
2.2 Population Health Community Outcomes Model	20
2.3 The Sustainable Transformation Model	23
2.4 Collective Impact Model	23
3. Getting to Work: SHIP Transformation Planning Workflow	25
3.1 Transformation Planning	25
4. Statewide Value Committee: Implementation of the Transformation Plan	29
<b>IV. Plan for Improving Population Health</b>	<b>32</b>
1. Executive Summary	32
2. Overall health burden in the State	34
2.1 General Health	35
2.2 Population Health Metrics	35
2.3 Selected Health Outcomes	36
2.4 Communities With Health Disparities	36
2.5 Collaborations to improve health overall	41
3. Disease mortality and morbidity	42
3.1 Leading Causes of Mortality and Morbidity in Wisconsin	43
3.2 Cancer in Wisconsin	45
3.3 Heart Disease	49
3.4 Unintentional Injuries	52
3.5 Infant Mortality	53
4. Prevalence Of Selected Conditions	56

5. Disease prevalence and associated risk factors .....	57
5.1 Determinants of Health .....	57
5.2 Health Behaviors.....	60
6. Healthcare coverage and Cost .....	68
7. Stakeholder Engagement .....	69
8. Goals, Objectives, and Interventions .....	69
<b>V. Description of State Healthcare Environment .....</b>	<b>72</b>
1. Population Profile.....	72
1.1 Race and Ethnicity .....	72
1.2 Age.....	72
2. Access to HealthCare.....	73
2.1 Access to Medical Care.....	73
2.2 Access to Mental Healthcare.....	74
3. Health and Healthcare Quality.....	74
3.1 Health .....	74
3.2 Healthcare .....	75
3.3 Healthcare Coverage (Infrastructure) .....	77
<b>VI. Health Systems Design and Performance Objectives .....</b>	<b>80</b>
1. Transforming Health and Healthcare.....	80
2. Population Definition .....	81
3. Fact Finding .....	82
4. Goals.....	90
5. Gap Identification and Analysis.....	91
6. Best and Better Practice Identification and Analysis .....	93
6.1 Improve people’s active participation in their health and healthcare.....	93
6.2 Improve connections for people between clinic and community/social resources .....	94
6.3 Expand primary care and behavioral health integration.....	94
6.4 Reduce disparities linked to poor health and healthcare outcomes .....	95
6.5 Transforming Best Practice to Better Practice .....	95
7. Implementation Recommendations And Considerations .....	96
7.1 Improve People’s Active Participation in Health and Healthcare .....	97
7.2 Improve Connections between Clinic and Community/Social Resources for People .....	101

7.3 Expand Primary Care and Behavioral Health Integration.....	104
7.4 Reduce Disparities Linked to Poor Health and Healthcare Outcomes .....	106
<b>VII. Enabling Health and Healthcare Transformation.....</b>	<b>112</b>
1. Transformation Measurement.....	113
1.1 Introduction.....	113
1.2 Transformation Measurement Development .....	114
1.3 Attributes to Measure Shared Transformation Measures .....	115
1.4 Existing Measure Inventory .....	117
1.5 Assessing Existing Measures.....	118
2. Identifying Shared Transformation Measures .....	119
2.1 Goal 1: Optimize Care Delivery and Interrupt Disease Progression Across the Health and Healthcare Continuum .....	119
2.2 Goal 2: Smarter Spending.....	119
2.3 Strategy 1: Improve People’s Active Participation in Health and Healthcare .....	120
2.4 Strategy 2: Improve Connection between Clinic and Community/Social Resources for People .....	120
2.5 Strategy 3: Reduce Disparities Linked to Poor Health and Healthcare Outcomes.....	120
2.6 Strategy 4: Expand Primary Care and Behavioral Health Integration .....	121
3. Implementation considerations .....	121
4. Purpose.....	122
5. Next Steps .....	122
6. Payment Models .....	123
6.1 Payment Models Development.....	123
6.2 Attributes of a “Good” Payment Model.....	123
6.3 Current State of Payment in Wisconsin.....	124
6.4 Gaps and Root Causes .....	124
6.5 Recommended Payment Models .....	125
6.6 Implementation Considerations .....	125
6.7 Medicaid and Medicare .....	126
6.8 Funding Community Services .....	126
7. Identifying Value Based Payment Models.....	126
7.1 Establishing Vision for Payment Transformation .....	127
7.2 Fact Finding.....	128

7.3 Learnings from Payment Models Inventory .....	130
7. Other SIM awardees' approaches to value-based payments .....	131
8.1 CMMI comprehensive primary care initiative.....	131
8.2 Massachusetts BCBS Alternative Quality Contract.....	132
8.3 Iora Health .....	133
8.4 Paying for Clinic to Community Connections .....	133
8.5 Wisconsin Medicaid Priorities .....	134
8.6 Medicare.....	135
8.7 CMS' Next Generation ACO .....	135
9. Gaps.....	136
10. Payment Recommendations .....	137
10.1 Comparison of Alternative Payment Models to Attributes and Recommended Approaches .....	138
10.2 Implementation Considerations.....	147
11. Health Information Technology .....	150
11.1 Executive Summary .....	150
11.2 Relationship to SHIP Goals, Strategies and Timing.....	151
12.1 Introduction.....	157
12.2 Fact Finding / Current State.....	162
12.3 Desired Future State/Transformation Goals .....	174
12.4 Gap Identification and Analysis .....	185
13. Governance .....	189
13.1 Definitions .....	189
13.2 Fact-finding / Current State.....	190
13.3 Desired Future State/Transformation Goals .....	198
14. Policy .....	199
14.1 Fact-finding / Current State.....	199
14.2 Desired Future State/Transformation Goals .....	199
14.3 Best and Better Practice .....	206
15. Technical Assistance .....	206
15.1 Fact-finding / Current State Health IT Technical Assistance (TA).....	206
15.2 Desired Future State/Transformation Goals .....	216
15.3 Gap Identification and Analysis .....	217

15.4 Best and Better Practices for Supporting the Uses of Health IT.....	218
15.5 Implementation Roadmap/Requirements .....	218
<b>VIII. Report on Stakeholder Engagement and Design Process Deliberations.....</b>	<b>221</b>
1. Team Descriptions from Facilitators .....	222
2. Execution .....	223
3. Voice of the Customer.....	223
4. Feedback and Engagement .....	224
5. Lessons Learned .....	225
<b>IX. Monitoring and Evaluation .....</b>	<b>227</b>
1. Design Process, Stakeholder Engagement & Communications.....	231
2. Monitoring and Evaluation Plan: Going Forward.....	241
<b>X. Operational and Sustainability Plan.....</b>	<b>249</b>
1. Operational Plan.....	249
2. Sustainability .....	252
3. Implementation Considerations.....	253
<b>XI. Appendices.....</b>	<b>254</b>
<b>XII. References/Endnotes.....</b>	<b>256</b>

## I. State Health Innovation Plan Executive Summary

### 1. THE CASE FOR STATEWIDE ALIGNMENT AND INNOVATION

Healthcare is on an unsustainable path and, while there is overwhelming acceptance of this fact by both public and private sector participants, there is still much debate and disagreement on how sustainability can and will ultimately be achieved. Despite best efforts by individual private and public healthcare related organizations to demonstrate improvements in achieving better care and higher quality—including lower costs and smarter spending—the results are isolated and un-scalable leaving healthcare costs continuing to outpace any realized quality gains. The reality of this situation forces us to think beyond the clinical walls to understand and solve the challenge and opportunity of the Triple Aim.

This expanded view of the problem traces the declining health of the population to the increased demand for frequent and often expensive healthcare services. If the demand for these services can be minimized or delayed by addressing upstream determinants of health we can expect to see an improvement in population health and commensurate drop in the healthcare cost curve.

For example, as the rate of obesity of the population has continued to rise, Wisconsin and the nation have experienced a commensurate rise in the incidence and early onset of Type 2 diabetes. Type 2 diabetes is largely preventable. The direct (medical care) and indirect (lost productivity) costs of diabetes in Wisconsin total an estimated \$6.15 billion. Preventing or even delaying the onset of the disease will have significant impact on long term quality of life and cost of care. Thus our plan must focus on promoting and maintaining the health of the population as well as making improvements in the delivery of both behavioral and primary care services.

Wisconsin has been consistently recognized for its healthcare innovation and quality, but most of this recognition is based on the isolated efforts of organizations that have focused on healthcare initiatives related to specific communities and populations.

Wisconsin has learned through trial and error that meaningful measurement, alignment of efforts across public and private stakeholders, and continuous focus on shared goals for the common good can lead to sustained achievements that benefit all participants.

To date, public-private partnerships have led to the creation of the Wisconsin Collaborative for Healthcare Quality (WCHQ), the Wisconsin Health Information Organization (WHIO) and the Wisconsin Statewide Health Information Network (WISHIN). These backbone data gathering, performance measurement and information sharing organizations are a demonstration of the power of alignment and collaboration and position Wisconsin to understand and improve the health and healthcare of its citizens. With SHIP, Wisconsin leverages these resources and the public private network of trust and collaboration that already exists to build an action plan for sustainable statewide health and healthcare transformation.

## 2. WISCONSIN SHIP TENETS AND VISION

Establishing a shared vision for transformation of health and healthcare across the many stakeholders and geographic regions of Wisconsin is an essential first step to advance the SHIP.

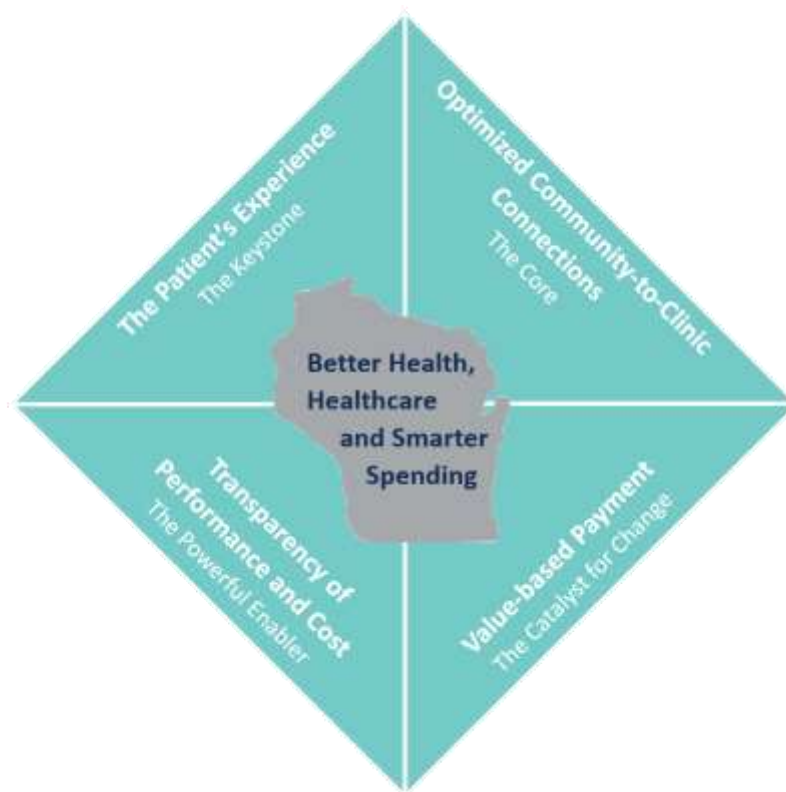
*Wisconsin's vision for statewide alignment and innovation to achieve better health and healthcare, and smarter spending is a statewide inclusive private-public partnership that is committed to sustainable transformation, is confident that we can accomplish more through aligned collaboration than we can through isolated organizational efforts, and based on the following tenets:*

- *The person/patient's experience is the keystone*
- *Optimized community-to-clinic connections as the core*
- *Transparency of performance and cost as a powerful enabler*
- *Value-based Payment as a potent catalyst for change*

*Wisconsin's State Health Innovation Plan (SHIP) will result in accelerated, impactful and sustainable improved health and higher value healthcare for Wisconsinites by:*

- *Creating a shared vision for the future of health and healthcare*
- *Promoting reciprocal accountability for complex problems of common concern*
- *Facilitating shared learning, discussion and decision making through peer to peer networks*
- *Identifying and disseminating best and better practices*
- *Enabling transformation through health information technology, value-based payment models and transformation measurement*





**Figure I.1: Wisconsin SHIP Tenets.**

In contrast to many existing disease-specific initiatives, Wisconsin's State Health Innovation Plan (SHIP) recommends a collective impact model to build systemic change, across sectors and stakeholders, population by population. In its initial design grant, SHIP tested this model using two populations: adults, age 18-64, with diabetes and hypertension or depression.

In considering these initial populations, the SHIP teams identified two goals:

1. Optimize health and interrupt disease progression.
2. Make smarter investments to promote health and healthcare value.

To improve health and healthcare outcomes and achieve these broad goals, the SHIP recommends a series of initiatives that can be grouped into four strategic focus areas:

1. Improve people's active participation in health and healthcare.
2. Expand primary care and behavioral health integration.
3. Improve Connections between Clinic and Community/Social Resources for People.
4. Reduce disparities linked to poor health and healthcare outcomes.

Applying SHIP Best and Better Practice Strategies to the Progression of Type 2 Diabetes					
Health Status	Well	Pre-Diabetic Metabolic Syndrome	Diagnosed Type II Diabetes	Advanced Health Deterioration	End of Life
<b>Best and Even Better Practices</b>	Healthy Eating Habits	Healthy Eating Habits	Healthy Eating Habits	Healthy Eating Habits	Advance directives
	Physical Activity	Physical Activity	Physical Activity	Physical Activity	Palative Care
	Health Education	Participation in Chronic Care Self Management Program	Participation in Chronic Care Self Management Program	Participation in Chronic Care Self Management Program	
	Healthy Community Meeting Needs	Health Community provides coaching on nutrition and coordination of care	Health Community provides coaching on nutrition and coordination of care	Health Community provides coaching on nutrition and coordination of care	Health Community provides end of life coordination of services
			Glucose control medication	Glucose control medication	
			Screen for co-morbidity	Coordinated treatment of Diabetes + co-morbidity	
<b>Measure(s)/Indicator(s) of Health Status</b>	Body Mass Index (BMI)	Body Mass Index (BMI)	Body Mass Index (BMI)	Body Mass Index (BMI)	Provider team discusses Advance Directives
	Connections offered and made to Health Community Partners, e.g Wellness programs, physical activity and nutrition programs.				Physician orders for Life-sustaining treatment (POLST) order discussed
		Phys Activity Tracking	Phys Activity Tracking	Phys Activity Tracking	
		Community Assessment	Community Assessment	Community Assessment	Community Assessment
		Self Management/Peer Group participation	Self Management/Peer Group participation	Self Management/Peer Group participation	Peer Group availability
		Blood Sugar A1c and H1A	Blood Sugar A1c and H1A	Blood Sugar A1c and H1A	
			Frequency of screen measures and outcome results	Frequency of screen measures and outcome results	
				Measures of co-morbid condition(s)	
<b>HIT Support</b>	Quality Assurance (frequency)	Quality Assurance (frequency)	Quality Assurance (frequency)	Quality Assurance (frequency)	TBD - Quality Assurance (frequency)
	Decision Support (performance to standards)	Decision Support (performance to standards)	Decision Support (performance to standards)	Decision Support (performance to standards)	Decision Support (performance to standards)
<b>Payment Incentive</b>	Incents patient healthy eating and exercise	Incents patient healthy eating and exercise	Incents patient healthy eating, exercise, medication and monitoring compliance	Incents patient healthy eating, exercise, compliance with medications and specific comorbidity care	Supports appropriate patient and family end of life decisions
	Incents providers to track and support patient activity	Incents providers to track and support patient activity	Incents providers to track and support patient activity	Incents providers to track and support patient activity	Incents providers and health community to provide for patients comfort
<b>Goal Optimize Health &amp; Interrupt Disease Progression</b>	<b>Never develops Type II Diabetes</b>	<b>Reverses Metabolic Syndrome, patient never develops Type II Diabetes</b>	<b>Reverses Type II Diabetes, patient never develops co-morbidities</b>	<b>Limit morbidity, optimize health and productivity</b>	<b>Optimize comfort</b>

**Figure I.2 Progression of Type 2 Diabetes**

Continuing with our type 2 diabetic population as an example and applying the SHIP strategies, methods, and models included in this plan we have an incredible opportunity to interrupt the progression of this costly chronic disease and improve population health. As figure I.2 illustrates, central to this approach is the inclusion of community partners that include the dyad of the person's healthcare provider and community resources.

Specific recommendations to advance these strategic focus areas can be found in Section VI. As is also noted in figure I.2 this work must be enabled by measurement, health information technology, and sustainable value-based payment. Recommendations in these areas can be found in Section VII.

These recommendations reflect the application of the SHIP's collective impact model to develop a plan targeting root causes that pervade the disease progression continuum. These strategies will impact not

only the initial populations but will also promote improvement in health factors that affect many Wisconsinites.

Transformation Area	Aim				SHIP Transformation Goals	Goal Measurement
IHI	WI SVC	SIM	US DHHS			
Health	Improve the health of populations	Improve population health in WI as measured by...	Improve population health	Healthier people	<i>Optimize health and interrupt disease progression.</i>	Prevalence and Incidence Measures
						Health Behavior (Outcomes)
						Social Determinant (Outcomes)
Healthcare	Improve the patient experience of care	All Wisconsin providers reach national 75th percentile on SVC core measures	Transform health care payment and delivery systems	Better care		Complication Rate Measures
						Screening and Follow-Up Measures
						Optimal Testing and Control Measures
Cost	Reduce the per capita cost of healthcare	Achieve 0% trend PMPY in 2018 as compared to 2013	Decrease total per capita health care spending	Smarter spending	<i>Make smarter investments to promote health and healthcare value</i>	Total Cost of Care (TCOC)
						Total Resource Use (TRU)
						Admissions and readmissions for ambulatory sensitive conditions

**Figure I.3 SHIP Driver Diagram – Aligning and Measuring Aims & SHIP Goals**

The SHIP driver diagram (figure I.3) demonstrates how the SHIP transformation goals will be measured in direct alignment with the aims for improved health, healthcare, and cost/spending, including alignment with other national measures. Expanding the SHIP driver diagram (figure I.4) demonstrates further how the SHIP strategies will be measured in support of the SHIP goals.

SHIP Transformation Goals	Goal Measurement	Strategies	Strategy Measurement
<b>Optimize health and interrupt disease progression.</b>	Prevalence and Incidence Measures	Improve people's active participation in health and healthcare	Patient Activation Measure (PAM)
	Health Behavior (Outcomes)	Expand primary care and behavioral health integration	Agency for Healthcare Quality and Research Framework and Intermountain Healthcare Mental Health Integration
	Social Determinant (Outcomes)	Improve Connections between Clinic and Community/Social Resources for People	<ul style="list-style-type: none"> <li>• How many counties have a current inventory of social health resources?</li> <li>• How many counties have a current inventory that is publicly accessible?</li> <li>• How many organizations and hits have actively used the inventory in the last 12 months?</li> <li>• How many counties have resources that match their targeted disease needs?</li> <li>• What is the volume of use (utilization) for the targeted resources listed in the inventory?</li> </ul>
	Complication Rate Measures	Reduce disparities linked to poor health and healthcare outcomes	Segment goal measures by age, payer, race, income level, educational level, gender, and sexual orientation.
	Screening and Follow-Up Measures		
	Optimal Testing and Control Measures		
<b>Make smarter investments to promote health and healthcare value</b>	Total Cost of Care (TCOC)	<b>TBD</b>	<b>TBD</b>
	Total Resource Use (TRU)		
	Admissions and readmissions for ambulatory sensitive conditions		

**Figure I.4 SHIP Driver Diagram – Measuring SHIP Strategies**

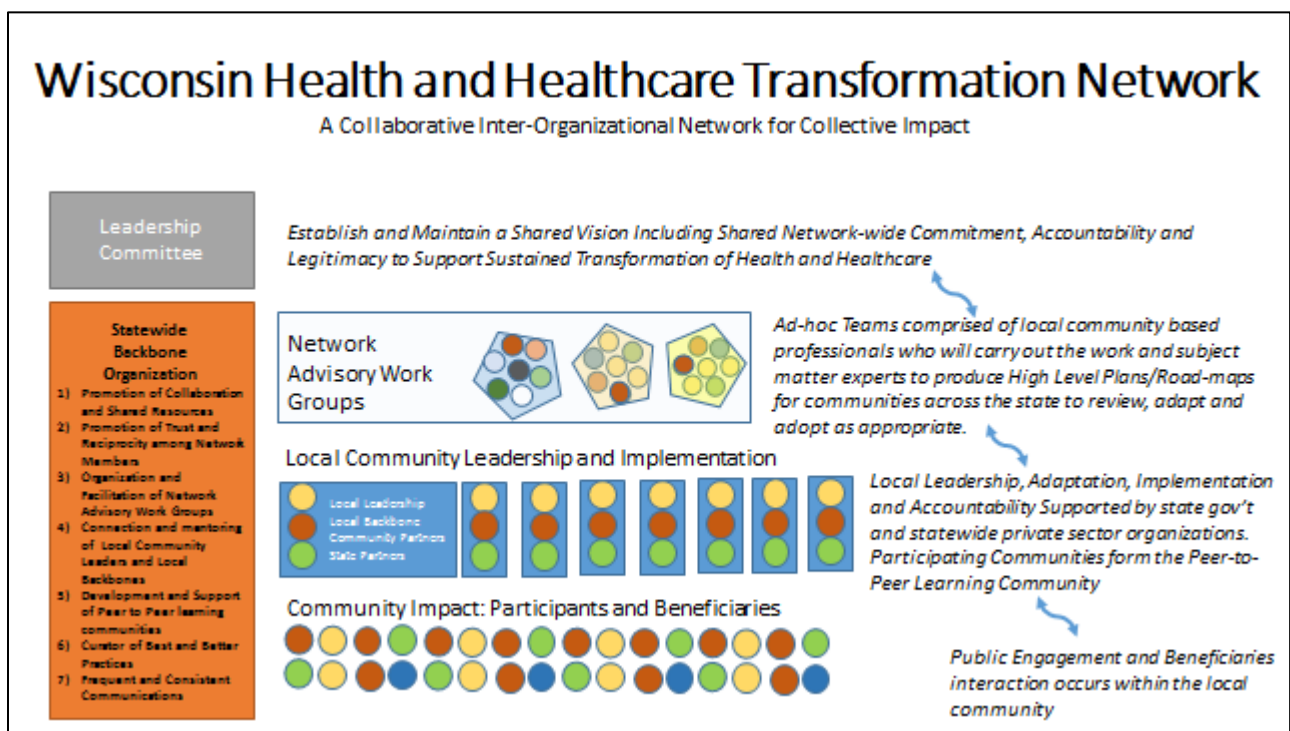
The SHIP is data driven and evidence based in its design, however realization of the value of the plan can only be achieved through the shared commitment to action and measurement of progress by a network of many.

### 3. ADVANCING THE SHIP

Early in the SIM Design year CMMI communicated to states that a subsequent round of SIM funding was not guaranteed, and subsequently confirmed that a third round of SIM funding would not be issued. With this in mind and acknowledging that startup funding for the full scope of the SHIP would require similar funding awarded to states that received CMMI test awards from SIM rounds 1 and 2, and that a securing a funding source at these levels would be unlikely, the SHIP team developed an alternative implementation strategy based on an incremental approach to advance specific SHIP recommendations at the community level. More information and initial details of this approach can be

found in the Operational Plan (Section X). Following this approach would still provide for statewide alignment and transformation, but would require significantly less startup funding and would be scaled at a slower pace than originally anticipated under a model test award.

Regardless of implementation approach and funding levels the SHIP team agreed that advancing the SHIP would require leadership and administrative infrastructure. To this end the SHIP team has proposed and is exploring the creation of a Peer-to-Peer Learning Network (P2PLN), the Wisconsin Health and Healthcare Transformation Network, with a leadership committee to direct and guide implementation of the SHIP at the community level, and a statewide backbone organization to provide the administrative infrastructure to support common functions. Figure I.5 illustrates the relationship between the transformation network's leadership committee and backbone organization and implementation of the SHIP at the community level.



**Figure I.5: Health and Healthcare Transformation Network.**

**SHIP Leadership Committee will:**

- Foster the development of a statewide learning community focused on a common agenda for change;
- Connect local community leaders with each other and technical assistance through Statewide Backbone Organization (SBO) to identify shared topics/areas of concern related to achievement of improved health, healthcare value and smarter investment;
- Track progress of work using agreed-upon indicators;
- Interact with the backbone entity on strategy, community engagement, and shared measurement;

- Leadership members demonstrate commitment through specific and public participation of organizational pursuit and support of the collective agenda and contribution to the peer to peer learning community; AND
- Leaders serve as a vocal champion of the Network and it's initiatives in the community.

#### **Statewide Backbone Organization will:**

- Promote collaboration and shared resources among participating stakeholders through establishment and application of guiding principles for operation;
- Promote trust, reciprocity, and fairness among participating stakeholders through creation of approved and observed operational guidelines;
- Organize and facilitate Advisory Work Groups;
- Connect to and mentor Local Community Leaders and Local Backbone Organizations;
- Develop and Support of Peer to Peer learning communities;
- Curate of Best and Better Practices; AND
- Dissemination and education of best and better practices through frequent and consistent Communications.

The SHIP leadership and backbone operations are essential daily activities that must be put in place at the onset and maintained/grown over time in order for the SHIP to remain relevant and produce a sustainable transformation of health and healthcare. Wisconsin will be able to leverage the commitment and expertise of its private and public sector leaders to provide the SHIP leadership requirements using its culture of collaboration and very minimal financial investment. The backbone organization however will require ongoing funding to support staffing and operational costs.

The scale and scope of the SHIP plan was designed to meet the requirements of the CMMI SIM Award with the expectation that model test awards might be made available to advance the plan into action at some point in the future. As noted previously, the model test funds were never guaranteed and thus, the SHIP design incorporated contingencies that would allow for smaller, more **incremental progress** to be made using **alternate funding** sources. In addition to the recently announced CMMI funding opportunity for Accountable Health Communities, the SHIP team is exploring options for incremental implementation of SHIP components using organic funding sources for activation.

In consideration of an incremental approach that would utilize alternate funding sources, and based on the best/better practice(s) identified by the transformation teams included in Section VI, two recommendations were identified for further analysis of what would be required to pursue these strategies as initial implementation pilots, including how to connect the transformation recommendations to the essential enablers of measurement, payment, and health information technology included in Section VII. Please see Appendix 1 for a description of the recommended approach for advancing these specific initiatives.

In March 2016 members from the SHIP team will be engaging stakeholders, which provided a SHIP letter of support, in an exploratory meeting to discuss the proposed pilot initiatives and the steps necessary to establish the transformation network.

## II. Acknowledgements

Wisconsin's SHIP team would like to acknowledge the following organizations for their contributions in developing Wisconsin's SHIP.

- Centers for Medicare and Medicaid Services (CMS)/Center for Medicare and Medicaid Innovation (CMMI) – for the opportunity, funding, and technical assistance to develop a statewide design. We've appreciated the efforts put forth with webinars, guidance and the continued support as our plan continued to progress. A special thanks to CMMI, State Health Access Data Assistance Center (SHADAC) and National Opinion Research Center (NORC) team members that conducted an onsite visit to review Wisconsin's work to date and provided important perspectives from others states' plans. Thanks also to the Office of the National Coordinator for Health IT (ONC) for technical assistance and guidance on health IT and related issues.
- The Statewide Value Committee (SVC) members and their respective organizations – for their sponsorship, direction, and in-kind support of the SHIP. Their enthusiasm for improving health and healthcare across Wisconsin has been and continues to be an incredible driving force.
- The Wisconsin Department of Health Services (DHS) – for dedication and patience with the project and the number of individuals that helped make it possible. We are particularly thankful for having a common meeting space for our internal leadership team and for the staff that helped create and maintain our public website.
- SHIP workgroup members, advisory panel members and their respective organizations for their donation of time and travel, voluntary input, dedication, patience, and support in developing the SHIP. The contribution by the workgroup participants was instrumental in the SHIP; overall participation was laudable. Approximately 300 people devoted a considerable amount of their time to formulate the recommendations included in the report. In total, workgroup members spent an average of 8-12 hours per month (which exceeded the original ask of 6-8 hours per month) between in person meetings, conference calls and drive time. A full list of workgroup members, advisory panel members and team facilitators can be found in Appendix 3.
- The extraordinary number of organizations that hosted in-person meetings – for dedicating their meeting space, audio visual equipment, facility services and support staff, and in-kind food and beverage for team meetings. Over \$10,000 of in-kind support was provided. A full list of organizations that provided in-kind support can be found in Appendix 4.
- Consumer engagement organizations – for their input and guidance on keeping the patient and "lived experience" at the center of our efforts. We're grateful to have had the opportunity to learn more about these dedicated organizations, the populations served, and to explore the most effective way to demonstrate collective impact. We hope to continue collaborating on behalf of the customer in the future. Consumer related organizations can also be found in Appendix 3.
- Data support and analysis Organizations - the following data organizations provided the data necessary to complete the SHIP work: Wisconsin Collaborative for Healthcare Quality (WCHQ),



Wisconsin Department of Public Health (DPH), Wisconsin Health Information Organization (WHIO), Wisconsin Hospital Association Information Center (WHAIC), Survey of the Health of Wisconsin (SHOW), University of Wisconsin Population Health Institute (UW-PHI), and County Health Rankings & Roadmaps. Without the help of these organizations and their incredibly dedicated staff, we would not have been able to portray a clear picture of Wisconsin's selected populations, nor how we intend to achieve the triple aim. Their assistance was a critical component at each step of the way.

### III. Plan for Health and Healthcare Delivery Transformation

#### 1. EXECUTIVE SUMMARY

*Wisconsin's leaders in business, healthcare, social services, academia, insurance, plan administration, state government and local community sponsors hold a common vision of improved health and higher value healthcare for all Wisconsinites. This shared vision is far more than an abstract aspiration. Rather, these leaders hold themselves and their organizations accountable for transforming that vision into sustainable reality through collaboration and collective action.*

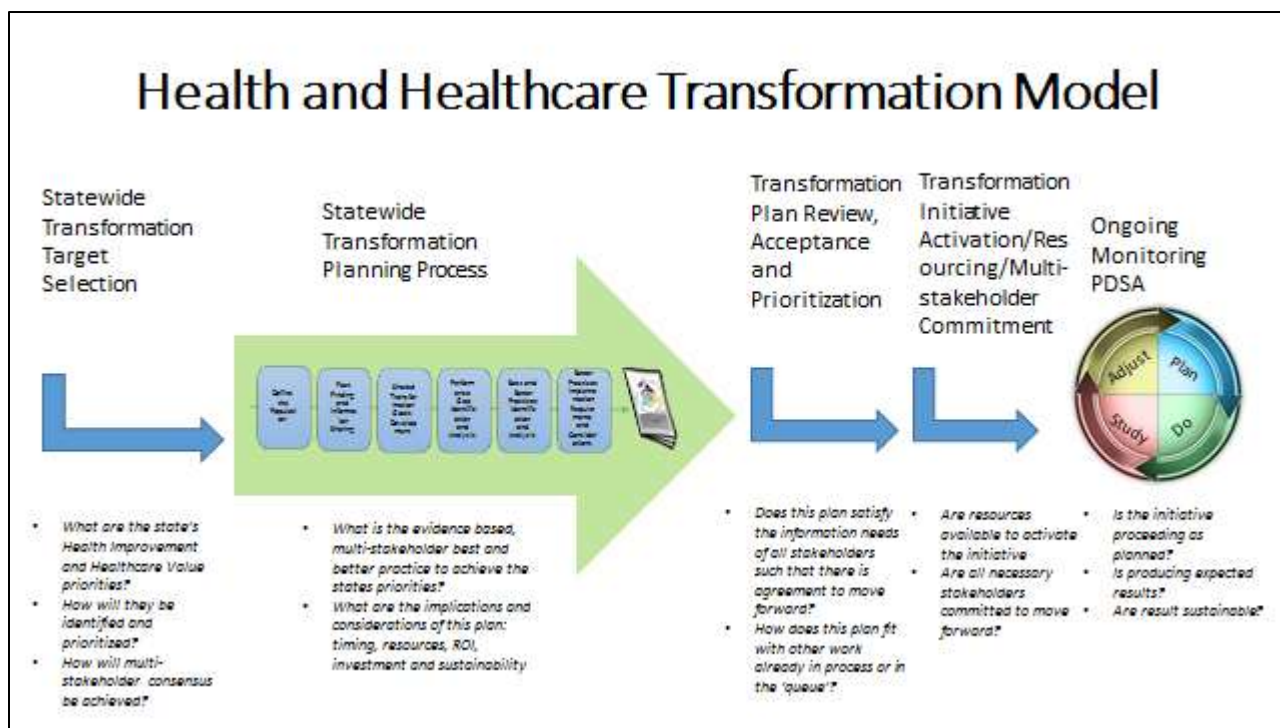
These leaders have tackled tough challenges in past, like creation of a statewide healthcare provider comparative quality performance dashboard and development of an All Payer Claims Database (APCD) for cost and quality analytics, and have met with success. This track record brings them back to the table with a sense of energy and optimism that the health and healthcare transformation challenge is both worthy and possible.

Recognizing that good intentions and enthusiasm only go so far, Wisconsin leaders formed the Statewide Value Committee (SVC) in 2011 to bring together diverse organizations with a stake in health and healthcare value and a true commitment to collaboration and collective action. Early collective actions by this group resulted in identification of a core set of healthcare delivery quality and performance measures with which to benchmark performance and track progress toward higher value healthcare. The SVC also sponsors several value-based payment pilot programs.

Still, the group remained dissatisfied with the pace and scope of impact of its work. In 2014, in partnership with the Department of Health Services, the SVC applied for a State Innovation Model award from Center for Medicare and Medicaid Innovation to design and test a framework for stakeholders across sectors to innovate and implement sustainable changes to health and healthcare programs that would accelerate progress and have greater, lasting and positive impact on Wisconsinites' health, the quality and cost of healthcare delivery, the patient's experience, and the spend/investment toward these goals.

The State Innovation Model (SIM) award provided Wisconsin leaders with sufficient funding and access to technical resources to design a working model for collaborative decision making and collective action for the future. Under the guidance of the Department of Health Services and the SVC, a small backbone staff and 300+ volunteers from over 60 different organizations contributed to the 12 month planning and design process.

The Health and Healthcare Transformation Model is the result of their work. This framework for collaboration and collective action, combined with the SVC's strategic leadership, governance, and oversight positions Wisconsin to achieve improved health, higher value healthcare and smarter spend.



**Figure III.1: Health and Healthcare Transformation Model.**

## 2. THE HEALTH AND HEALTHCARE TRANSFORMATION MODEL

### 2.1 Background

Successful and sustained transformation of health and healthcare in Wisconsin is dependent on identification and clear articulation of shared goals that all stakeholders accept and are willing to support. The SVC is a voluntary collaborative of more than 30 organizations dedicated to improving health and leveraging value in healthcare delivery in Wisconsin. The SVC has established the following Shared Purpose and Goals:

**Purpose:** The SVC's mission is to accelerate **improved health** of Wisconsin state residents while ensuring **high value healthcare delivery**. This will be accomplished through an inclusive private-public collaboration committed to sustainable transformation and based on the following tenets:

1. The sustained well-being of the person/patient is the focus of our collective work
2. The scope of our efforts encompasses community programs and clinical services that influence health
3. Transparency of performance and cost is a powerful enabler
4. Value-based Payment is a strong catalyst for change

#### Goals:

1. Achieve 0 percent trend in PMPY by 2018, as compared to 2013. A baseline trend will be established for each population; for Commercial, Medicare, and Medicaid.

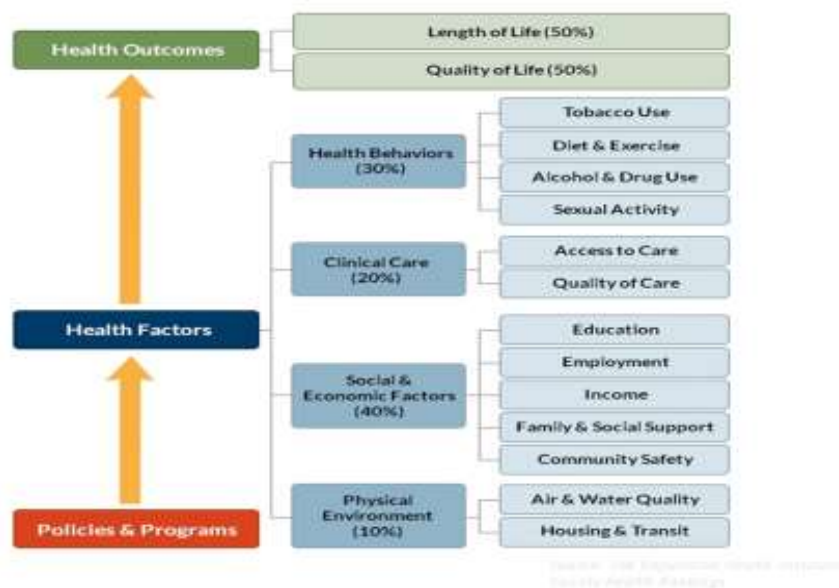
2. Improve the delivery of healthcare by 2018, as measured by the SVC measure set, by reducing the variation so that all Wisconsin providers are in the 75th percentile (for a specific measure) as compared to the national average and no more than X standard deviation from the target.
3. Improve the population health of Wisconsin by 2018, as measured by X measure (BRFSS, CGCAHPS, HCAPS, County Health Rankings, HRA Scores, Reduced disparities, QALY) by X percent each year starting in 2015.

Establishing common goals is an important first step in transformation. However, common goals do not, of themselves, produce tangible or sustainable results. Rather, common goals provide a touchstone for a great deal more collaborative work. To build out its transformation planning and implementation framework Wisconsin referenced several other proven models for innovation, collaboration and transformation.

## 2.2 Population Health Community Outcomes Model

To put appropriate context around the scope of our work, we adopted the County Health Rankings model as the foundation for as the Community Based Model for understanding and improving health outcomes.

### A Community Based Model for Understanding and Improving Health Outcomes

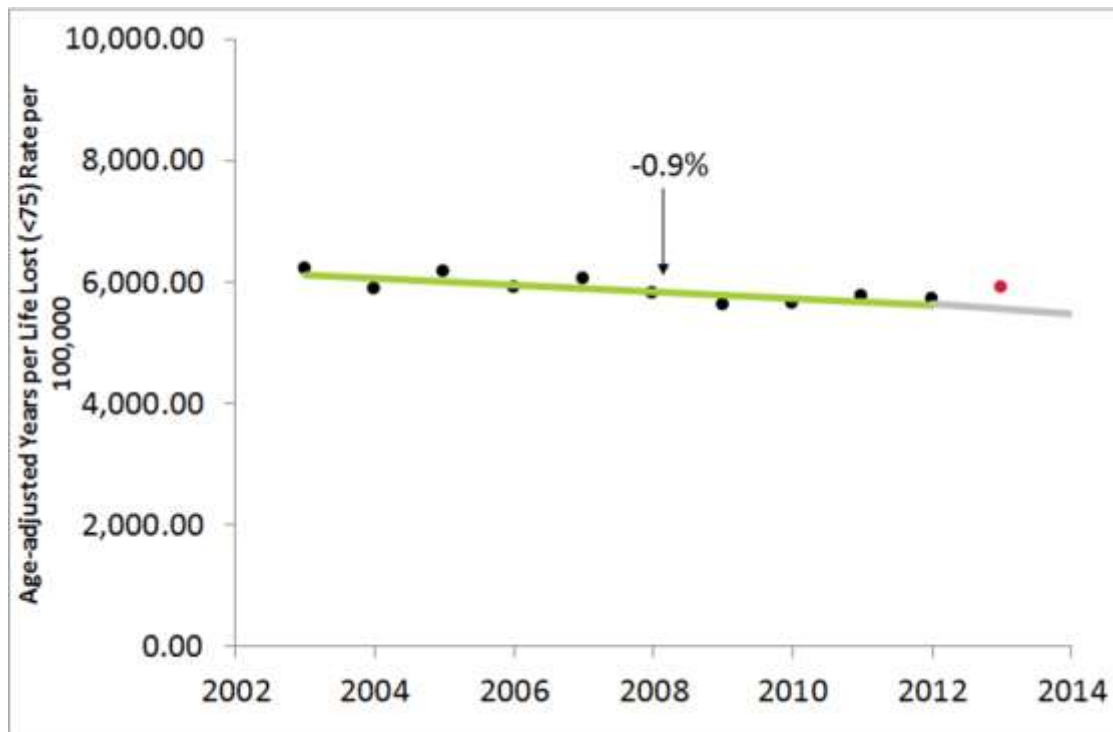


**Figure III.2: Community Based Model for Understanding and Improving Health Outcomes.<sup>1</sup>**

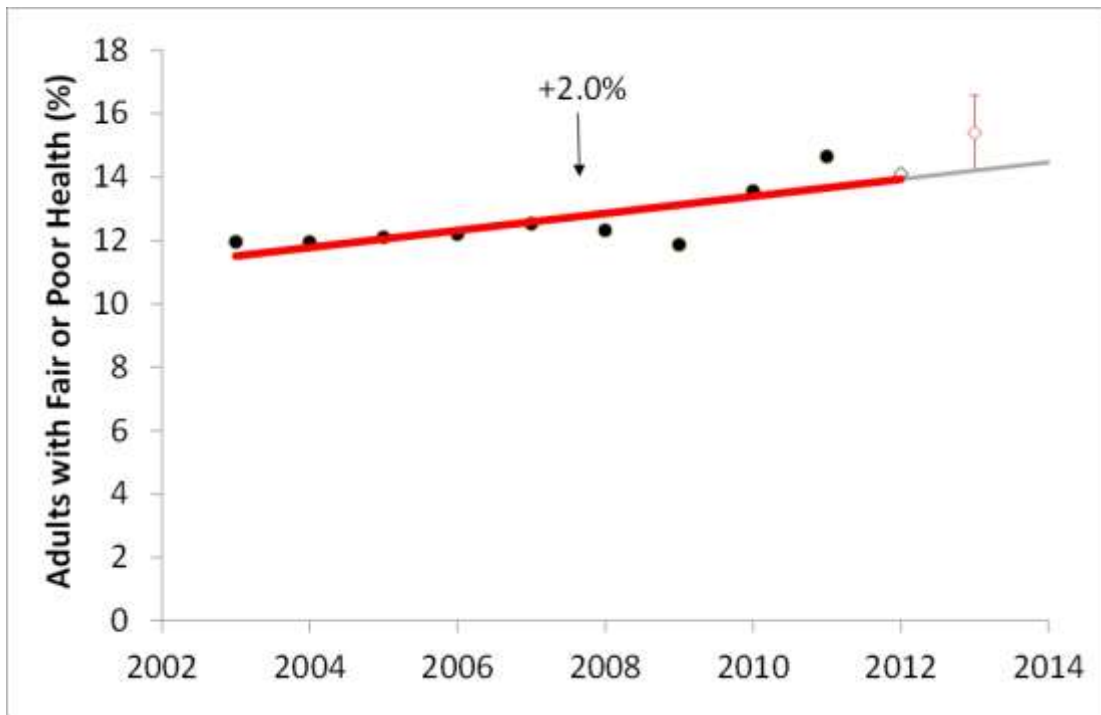
This model demonstrates that health is largely produced outside of healthcare settings, in the communities in which people live, learn, work, and play. The SHIP teams came to refer to this as the “community outcomes model” of health, to reflect the heavy influence of non-clinical settings on people’s health and healthcare experiences.

*As we measured Wisconsin's performance against these two criteria, our analysis revealed that work to date had produced longer life, but that quality of life had actually declined. Additionally, spending had continued to rise on an unsustainable trajectory. A review of the contributions of Health Factors on this model also demonstrated a need for SHIP to extend its reach beyond the clinical environment and embrace the community-to-clinic connection(s) in order to be truly and lastingly impactful.*

### Health in Wisconsin: We are living longer . . .

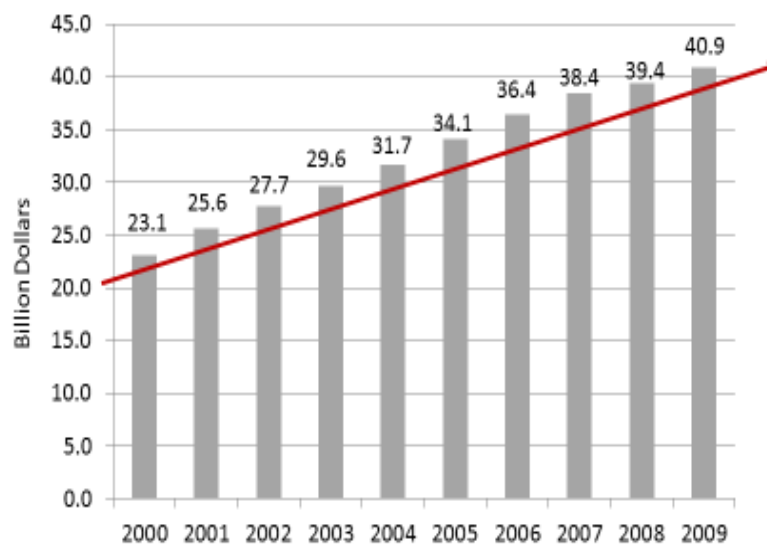


... But are in worsening health



### And...Healthcare Costs Continue to Rise

(National health expenditure survey data)

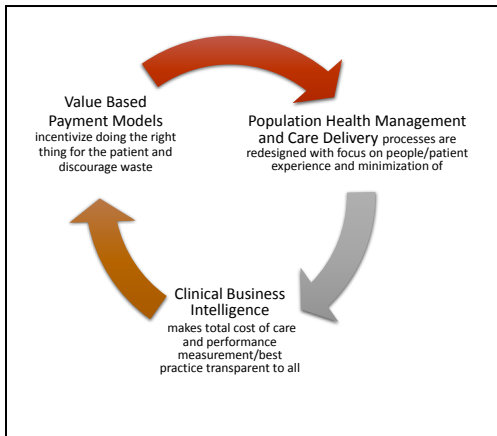


Source: Office of Actuary, CMS, December 2011

Figure III.3: The State of Health in Wisconsin.

The above graphics represent the most recent data available from federal government, and while the rate of overall cost growth has slowed recently, nationally and presumably in Wisconsin, the expectation is that we will continue to experience increases and healthcare spending will continue to consume a disproportionate share of overall spending.

### 2.3 The Sustainable Transformation Model



**Figure III.4: The Sustainable Transformation Model.**

Meaningful and timely information and appropriate incentives are key enablers of transformation implementation and sustainability. The Sustainable Transformation Model<sup>2</sup> of the ThedaCare Center for Healthcare Value recognizes and leverages the essential relationship among:

- Population Health Management and Care Delivery to focus on the patient and remove waste in processes,
- Transparency of Cost and Performance to shine the light and spread best practice, and
- Value-based Payment to incentivize and reward the right behaviors. This model, when applied in balance, makes doing the right thing the easy thing for all stakeholders involved.

### 2.4 Collective Impact Model

One might question what else Wisconsin could do differently and better in the future to improve the length and quality of life and positively impact the value gleaned from investments in health and healthcare. Early in the project, interviews with SVC members revealed that member organizations already were pursuing many quality and outcome improvement efforts and enjoying some isolated success. But, while there was a common intention across these efforts to support the Triple Aim and SVC Goals, a reliable and consistent methodology to identify and implement meaningful and lasting change at the *community* level was lacking.

The Collective Impact framework positioned SHIP to bring multiple individual/organizational efforts into strategic alignment for collective action and achievement of shared outcomes.

# The 5 Conditions of Collective Impact



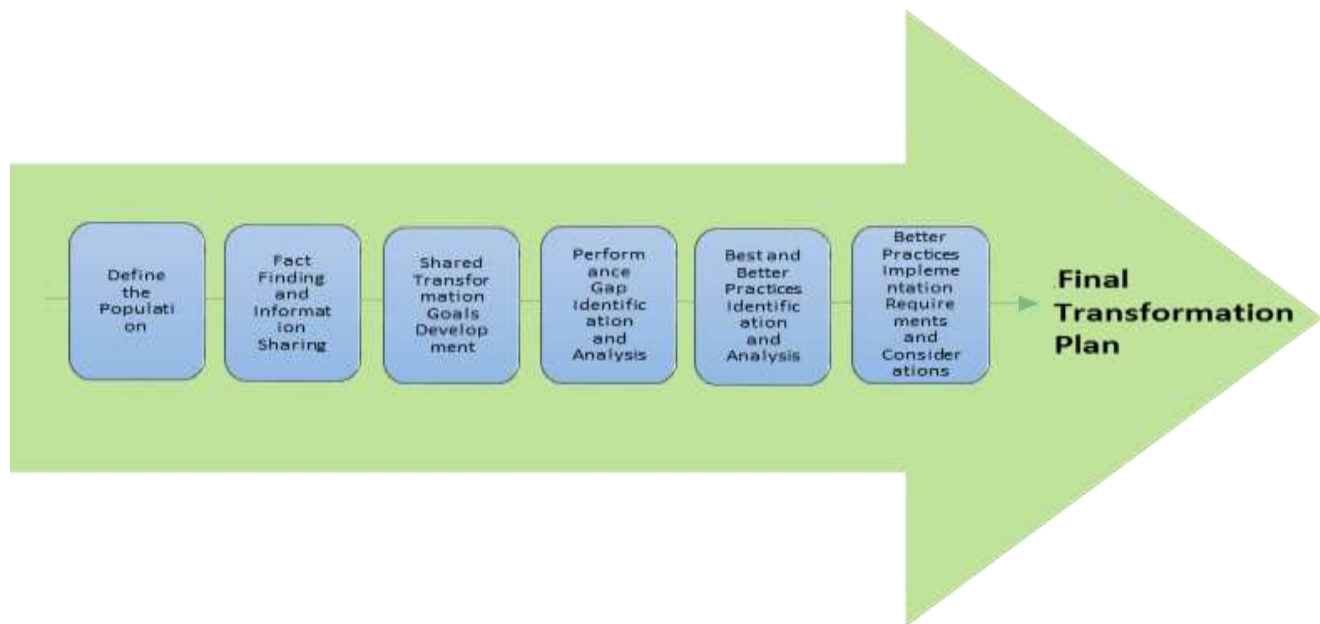
Isolated Impact vs. Collective Impact	
Isolated Impact	Collective Impact
<ul style="list-style-type: none"> <li>➤ Funders select individual grantees that offer the most promising solutions.</li> <li>➤ Nonprofits work separately and compete to produce the greatest independent impact.</li> <li>➤ Evaluation attempts to isolate a particular organization's impact.</li> <li>➤ Large-scale change is assumed to depend on scaling a single organization.</li> <li>➤ Corporate and government sectors are often disconnected from the efforts of foundations and nonprofits.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Funders and implementers understand that social problems and their solutions arise from the interaction of many organizations within a larger system.</li> <li>➤ Progress depends on working toward the same goal and measuring the same things.</li> <li>➤ Large-scale impact depends on increasing cross-sector alignment and learning among many organizations.</li> <li>➤ Corporate and government sectors are essential partners.</li> </ul>

Figure III.5: Isolated vs. Collective Impact.<sup>3</sup>



### 3. GETTING TO WORK: SHIP TRANSFORMATION PLANNING WORKFLOW

Referencing these proven models as the basis for collaboration and innovation, SHIP honed in on the components of each model that would best suit the demands of the SHIP design requirements and developed the Transformation Planning Workflow.



**Figure III.6: Transformation Planning Workflow.**

The Transformation Planning Workflow is a data-driven and evidence-based process that unites stakeholders through development of a common vision of the future, articulation of shared transformational goals, and mutually reinforcing alignment of work. This work flow begins with population definition and moves through fact finding, goal setting, gap analysis, best practice identification, and better practice alignment. The end result is a fully informed and mutually supported road map for implementing a sustainable plan that will result in transformed health and healthcare of a population.

#### 3.1 Transformation Planning

##### Step 1: Define the Population

Population selection can be based on any number or combination of parameters: diagnosis, co-morbidities, geographic boundaries, economic segments, provider type or location, age range, gender, or more. What is important is that the selected population(s) meet the following criteria:

1. Be relevant and important to a broad set of stakeholders in both private and public sectors.
2. Represent a significant opportunity in terms of health, healthcare or cost improvement.
3. Be clearly defined with full understanding of who is “in” and who is “out.”
4. Have sufficient available data to understand the problem(s) and the possible opportunities.

5. Be in the line of sight of stakeholders—i.e. they already are interested in meeting the health promotion and healthcare needs of this population and have resources working on it—and are willing to commit resources to collaborating on transformation.
6. Links the social-economic environment and clinical environment in some way.

This level of population definition assures that the right organizations and subject matter experts can be identified for participation in the planning event, and that data collection and study is focused, productive, and prevents misunderstandings that could lead to later frustration and withdrawal.

## **Step 2: Fact Finding and Information Sharing**

Fact finding builds a perspective of the whole person/patient. Guided data-driven, evidence-based discussion allows the workgroup participants to share their knowledge of and experience with this population and develop insights about the key drivers (and the connection between or among key drivers) of health, healthcare and cost. The output of this step is a Key Findings Report (KFR) (see Appendix 5) that synthesizes the evidence and draws out those remarkable observations made by the workgroup in terms of issues, ideas and current state of the target population.

## **Step 3: Shared Transformation Goals Development**

This step establishes a mutual vision of the future among the stakeholders including a shared understanding of the problem(s) to be solved and a commitment to a joint approach to solving the problem(s) through agreed upon actions. Shared goals should not be interpreted as everyone doing the same thing, but rather everyone taking appropriate action within individual scopes of work to reinforce each other's work and contribute to achievement of the goal.

Shared Transformation Goals are:

- Aligned: With the Triple Aim, SVC, other national, state, and organization-specific visions and focused on
  - Improved health
  - Improved quality of healthcare (access, affordability, reliability)
  - Cost savings and smarter spending (reductions in spending on unnecessary or sub-optimal services; enhanced investments in prevention and in the “right” services)
- Targeted: Connect to interventions that target
  - Systems: the healthcare system, clinic-community linkages, and policy, system, and environmental changes
  - The social determinants of health
  - Health equity
  - Prevention, including healthy behaviors
- Collective: Require the efforts of many stakeholder types (not just different organizations, but organizations doing different types of work) to achieve
- Worthy: Viewed as worthy by the population of people affected
- Supported: All stakeholders agree they will contribute toward achievement of the stated goals

Where possible, in their final form, Shared Transformation Goals will be expressed in **S.M.A.R.T.** format: Specific, Measurable, Achievable, Realistic and Time-bound. Shared Transformation Goals are captured in the SHIP Driver Diagram (figure I.3).

#### Step 4: Performance Gap Identification and Root Cause Analysis

Armed with a holistic, evidence-based perspective of the selected target population or problem and the Shared Transformation Goals, Workgroup members begin to identify gaps between the current state and the desired future state in terms of health promotion and services, healthcare and/or spend. Once identified, gaps can be prioritized based on their importance and impact, and further analyzed to determine why the gap(s) exist, what creates or expands each gap and what actions will accelerate their closure. Performance Gaps and Root Causes are directly aligned with Shared Goals and captured in section VI.

#### Step 5: Best and Better Practices Identification and Analysis

Best Practice is the focused study and implementation of established processes and behaviors within stakeholder silos to address root causes and close performance gap(s) in the most efficient and sustainable method possible. It may be helpful to think of best practice as a vertical improvement process within a stakeholder silo (e.g. standardized patient intake processes).

The scope of Wisconsin SHIP is inclusive of many community and clinical care settings, and therefore identified best practices must be flexible to the degree that adaptation to the environment is supported. Implementation of a best practice in a rural clinic, for example, may vary significantly from its implementation in an urban academic hospital. Once identified, best practices foster further discussion about education and dissemination within the stakeholder silos, enabling payment models, and supporting measurement.

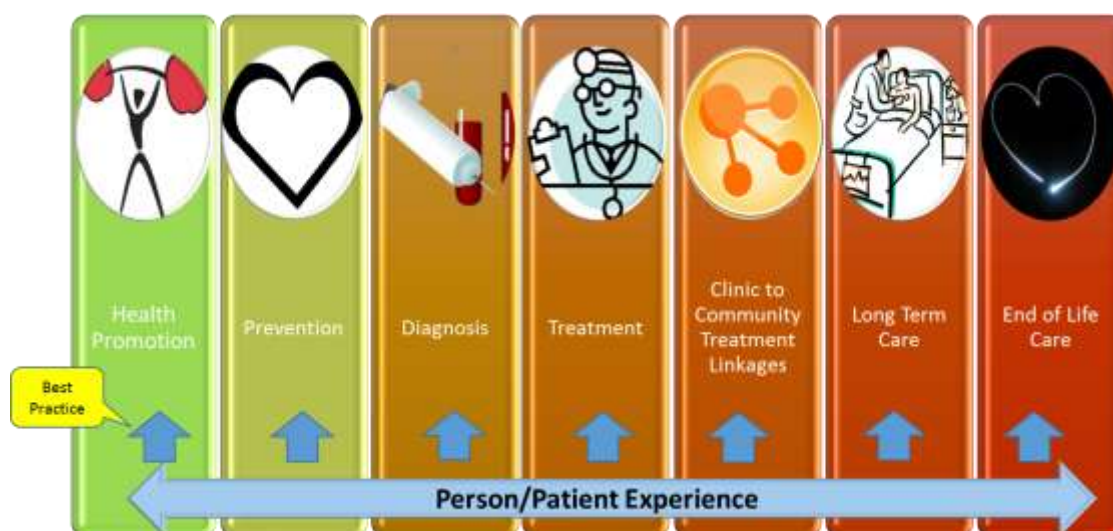
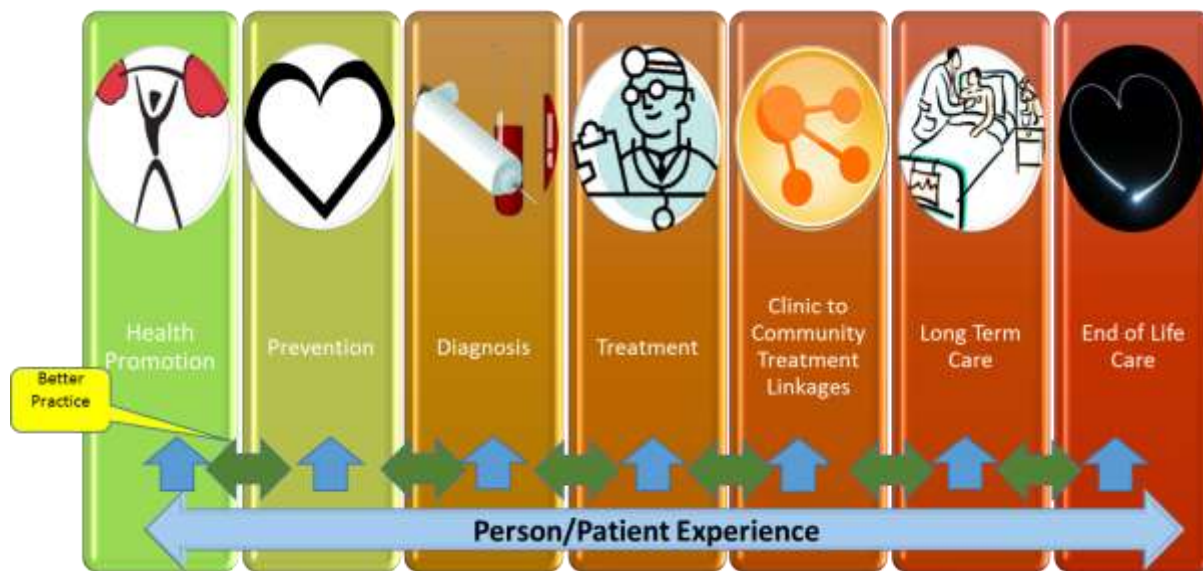


Figure III.7: Person/Patient Experience in Best Practice.

Upon identification of Best Practices, the workgroup is in position to consider what connections across stakeholder silos would result in even *better* person or patient experience and outcomes. The workgroup considers each best practice in terms of its connecting points to other best practices up and down the health and healthcare continuum.

Here, it may be helpful to think about Better Practices as a horizontal improvement process that links the best practice of one silo to the best practices of other silos in the most efficient and sustainable way (e.g. coordinated care plans and warm patient hand offs from clinic to lab to hospital to rehab, with a focus on patient experience and complete care process efficiency).



**Figure III.8: Person/Patient Experience in Best Practice.**

### Step 6: Better Practices Implementation Requirements and Considerations

In this final step, the workgroup considers the implementation of best and better practices and produces an Implementation Recommendation and Consideration Report. Areas of discussion and content include:

1. Recommendation of value-based payment model that will best enable adoption of best and better practice.
2. Measurement of process and performance (outcomes) to benchmark and track progress toward the Shared Transformation Goals.
3. Health information technology that will be needed or desired to fully realize the benefits of best and better practice across multiple community and care settings.
4. Education and dissemination of the practices to scale the adaptation and adoption of best and better practices across the state.
5. Workforce requirements to satisfy the implementation of best and better practices statewide

6. Financing options to build and sustain the adoption and sustainability of best and better practices.

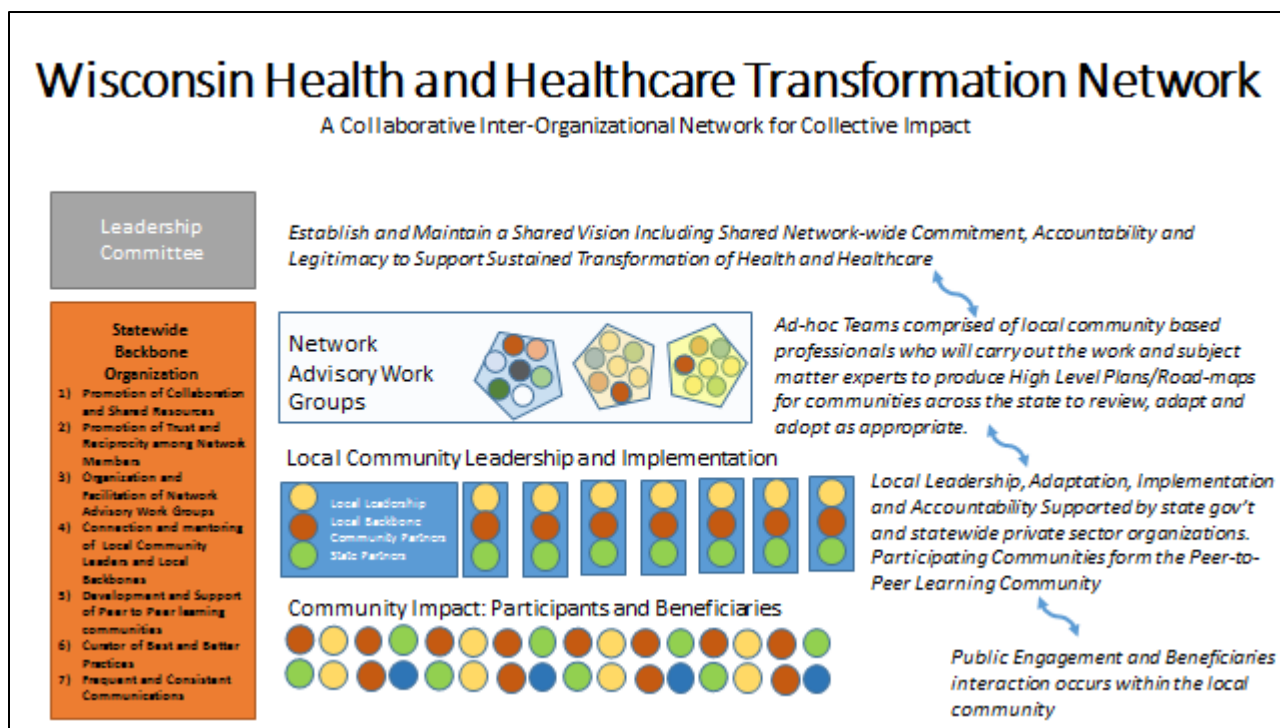
This is the investment in infrastructure and tools the workgroup believes are necessary to enact Best or Better Practices and deliver on better healthcare for Wisconsin.

The following guiding principles are considered in these discussions:

1. Consider the requirements of the SIM Model Test requirements AND the best possible outcome for Wisconsin citizens. Create a plan we can implement whether the Model Test funds are awarded or not.
2. Focus on collective and collaborative work that allows us to get more done together than would be possible individually.
3. Leverage existing work, know-how and infrastructure where it makes sense. However, there are no sacred cows, we are looking to improve, not necessarily preserve 'as is'.
4. Avoid 'piling on' without regard to the burden of current operations that capture data and produce information.
5. Look to replace existing processes with more efficient methods.
6. Practice candor with respect. Transparency of intent and motivation is encouraged and expected.
7. Health promotion and healthcare delivery are local. The SHIP transformation process must be relevant and credible at the community level. State supported community implementation.
8. Everything we do will be intentionally designed for scalability, once proven.
9. Eye on the prize: The end game is to optimize health at every stage of the healthcare continuum and deliver higher quality, lower cost care when and where it's needed.

#### **4. STATEWIDE VALUE COMMITTEE: IMPLEMENTATION OF THE TRANSFORMATION PLAN**

The output of the SHIP Transformation Planning workflow is a realistic, multi-stakeholder plan for collective action. However, the value of the plan will only be experienced through implementation and sustained analysis and adjustment. The Health and Healthcare Transformation Model provides strategic direction, governance, oversight and accountability for results that are needed to put and keep the plan in motion.



**Figure III.9: Wisconsin Health and Healthcare Transformation Network.**

### The Role of the Leadership Committee

#### Guidance, Vision, and Oversight

- Establish and maintain a shared vision including network-wide commitment, accountability and legitimacy to Support Sustained Transformation of Health and Healthcare
- Foster the development of a statewide learning community focused on a common agenda for change,
- Connect local community leaders to the State Backbone organization to identify shared topics/areas of concern related to achievement of improved health, healthcare value and smarter investment.
- Track progress of work using agreed-upon indicators
- Interact with the backbone entity on strategy, community engagement, and shared measurement

#### Leadership

- Commit your organization to participate in the collective agenda and contribute to the peer to peer learning community
- Serve as a vocal champion of the Network and it's initiatives in the community

#### Process

- Actively participate through engaged discussion, active listening, and respectful dialogue in regularly scheduled meetings (every 4-6 weeks)

### **The Role of Backbone Organization**

- Promotion of collaboration and shared resources among Network Members
- Promotion of Trust, reciprocity, and fairness among Network Members
- Organization and Facilitation of Network Advisory Work Groups
- Connection to and mentoring of Local Community Leaders and Local Backbone Organization
- Development and Support of Peer to Peer learning communities
- Curator of Best and Better Practices
- Dissemination and education of best and better practices through frequent and consistent Communications

## IV. Plan for Improving Population Health

### 1. EXECUTIVE SUMMARY

Many reports have documented the health status of Wisconsin residents and recommended strategies to realize improvements. Healthiest Wisconsin 2020 (HW 2020), the state's health plan, identified 23 objectives and accompanying baseline and disparities information for each<sup>4</sup>. The University of Wisconsin's Population Health Institute publishes health progress reports and opportunities for improvement<sup>5</sup> and the County Health Rankings & Roadmaps raises awareness annually by letting counties see how they compare to each other on health outcomes and factors.<sup>6</sup>

Similarly, this report documents the current state of health and disease in the state, the major causes of morbidity and mortality, and areas for improvement. It also lists many of the major initiatives targeting certain conditions or health behaviors.

In contrast to existing condition-specific reports and recommendations, however, Wisconsin's State Health Innovation Plan (SHIP) and Population Health Improvement Plan (PHIP) recommend a collective impact model to build systemic change, across sectors and stakeholders, population by population. In its initial design grant, SHIP tested this model using two populations: people with diabetes and hypertension or depression.

In considering these initial populations, the SHIP teams identified two goals:

- 1) Optimize health and interrupt disease progression.
- 2) Make smarter investments to promote health and healthcare value.

Focusing on people with diabetes and two common co-morbid conditions, SHIP teams discerned where health was *not* optimized at each disease stage, and where avoidable outcomes with high treatment costs were *not* averted. To prevent poor outcomes and achieve these broad goals, they targeted four strategic focus areas:

1. Improve people's active participation in health and healthcare.
2. Expand primary care and behavioral health integration.
3. Improve Connections between Clinic and Community/Social Resources for People.
4. Reduce disparities linked to poor health and healthcare outcomes.

These goals, strategies, and the menu of best practices the SHIP recommends reflect the application of the SHIP's collective impact model to develop a plan targeting root causes that pervade the disease progression continuum. These recommended strategies will impact not only the initial populations but will also promote improvement in health factors that affect many Wisconsinites, such as obesity, mental health, tobacco use and other health behaviors, patient resources, disparities, and systemic healthcare issues.

The Population Health Improvement Plan, then, is both to implement the SHIP recommendations for the test populations, and to deploy its collective impact model, population by population, to improve

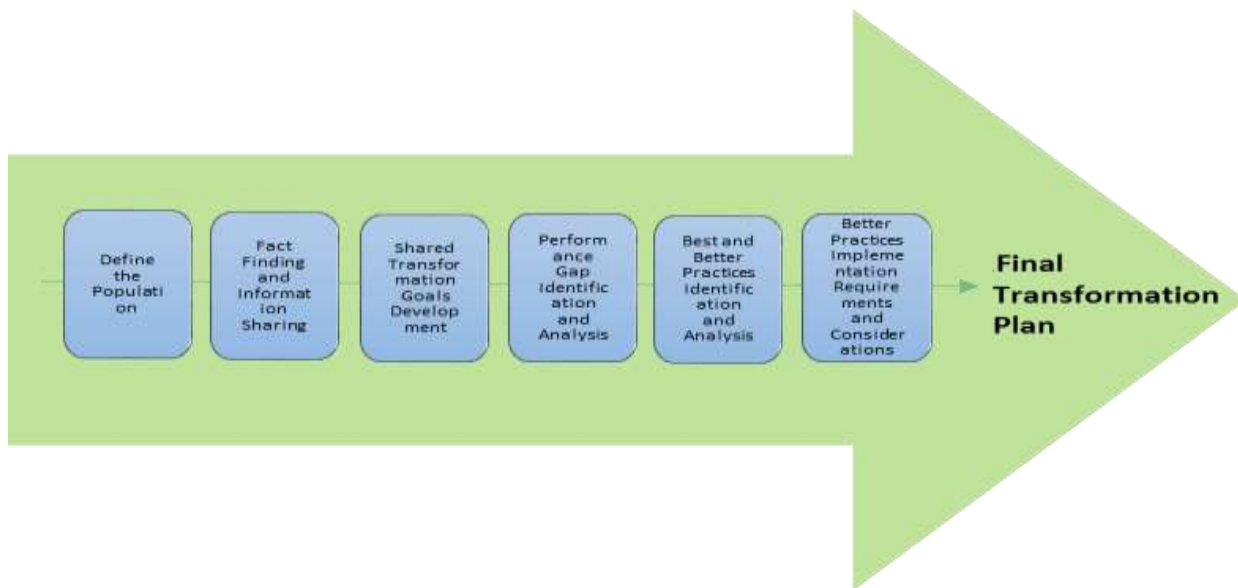


health, improve healthcare, and reduce costs. Through this process, those implementing the SHIP and its transformation workflow will discern root issues preventing health optimization at each stage, recommend solutions, and collaborate to implement solutions across sectors. Beyond an intervention menu, the SHIP includes recommendations for cross-sector collaboration, at a statewide as well as local level, to bridge organizational and initiative silos and use the efforts and energy already being deployed to improve health more effectively. SHIP implementation will be accomplished through: facilitation and technical assistance; creation of a peer to peer learning network; health information technology improvements; payment models; and measures and monitoring support. A systemic approach that draws on and connects collaborators in multiple sectors can better address the multiple issues impacting health.

The Wisconsin Health Improvement Planning Process (WI-HIPP), launched in late 2015 by the Wisconsin Department of Health Services, Division of Public Health, and a steering committee of diverse stakeholders, is laying groundwork for state-level coordination of this approach. Using HW 2020, priorities identified by hospitals, local health departments and communities in Community Health Assessments and Community Health Improvement Plans, and criteria developed by the SHIP and the state Public Health Council, WI-HIPP is selecting three to five opportunities to align efforts to improve Wisconsin's health. WI-HIPP will create a health improvement plan intended to meet national accreditation standards for the state public health agency and facilitate collaboration around implementation and ongoing measurement. WI-HIPP will also help inform the next iteration of the state health plan, including the processes to assess Wisconsin's health, identify areas for collective impact, and implement plans for improvement.

In implementation, SHIP will seek to align with WI-HIPP priorities and processes. WI-HIPP will also leverage SHIP's initial efforts and processes to inform improvements for the populations it selects.

The SHIP and PHIP recommend interventions with population-level implications, but also offers a means of aligning forces across sectors to tackle root causes of common health and healthcare problems and improve the health and healthcare system. With means of choosing health priorities and systems to tackle them collectively, Wisconsin can improve health, improve care, reduce costs, and mobilize the work that will help everyone live better, longer.



**Figure IV.1: Transformation Planning Workflow.**

## **2. OVERALL HEALTH BURDEN IN THE STATE**

Following the national agenda from the original Healthy People 2010, the state of Wisconsin has been developing for 30 years a statewide agenda for community health improvement. The latest plan, called Healthiest Wisconsin 2020, sets out a vision of “Everyone Living Better, Longer” based on two major goals: improving health across the lifespan and eliminating health disparities. The Wisconsin State Health Innovation Plan borrows extensively from Healthiest Wisconsin 2020. As a result, when appropriate, Healthiest Wisconsin 2020 baseline indicators were assessed and reported.

In general, the main indicators used to understand overall health outcomes are life expectancy at birth and mortality. The vital records systems (Birth and Death Certificates - VR) have been used as surveillance to assess events associated with birth outcomes and mortality causes. Other approaches include using national or state level survey data such as the Behavioral Risk Factor Surveillance System (BRFSS) or the Family Health Survey (FHS) to describe the self-reported risk factors, health status and health outcomes of the population in terms of prevalence.

In addition, hospital discharge data with Universal Billing Code (UBC or claims) has been widely used to describe disease morbidity. Other approaches may include using system registries (trauma care, reportable disease registries and clinical data), as well as community level data based on local needs assessment called Community Health Needs Assessment (CHNA). For the purpose of this report, health indicators were based on mortality data, hospital discharges and state survey data such as the Behavioral Risk Factor Surveillance System (BRFSS). In addition, data from the census mostly the American Community Survey (ACS) also were explored to address the social determinants of health. Most of the datasets used in this report are publicly available from the Centers for Disease Control and Prevention (CDC Wonder, WISQARS and BRFSS) and therefore replicable.

## 2.1 General Health

According to the 2009-2013 American Community Survey (ACS), there was no difference in disability trends between Wisconsin and the nation. Among the civilian non-institutionalized population in Wisconsin, 11 percent reported a disability. The likelihood of having a disability varied by age with a prevalence at 4 percent in young people under 18 years of age, 9 percent among adults 18 to 64 years old, and 33 percent among the 65 and older.

According to 2014 BRFSS, 16 percent of all adults may have fair/poor health and 20 percent have some kind of disability. The prevalence of fair/poor health was higher among the 55 and older (21%) compared to the 18-54 age groups (12%). In general females had a higher proportion of fair/poor health compared to males. Blacks and natives had a higher proportion of fair/poor health compared to other racial groups.

**Table IV.1: Percent distribution of general health status rating by demographic characteristics in Wisconsin, BRFSS 2011-2014.**

Demographics	General Health status		
	Very Good	Good	Fair-Poor
Age			
18-54	58%	30%	12%
55+	47%	32%	21%
Sex			
Males	54%	32%	14%
Females	54%	29%	17%
Race			
Black	42%	30%	29%
Native	45%	32%	24%
Asian	55%	34%	10%
Hispanics	43%	39%	19%
White	56%	30%	14%

## 2.2 Population Health Metrics<sup>7</sup>

The Healthiest Wisconsin 2020 established a goal for everyone to live longer and better. Progress toward this goal is assessed by monitoring the major selected health outcomes and associated factors for the state's population overall, as well as by considering the health status of specific populations within the state. The state health plan identified these following 12 health focus areas to guide its public health action.

- Adequate, appropriate, and safe food and nutrition
- Alcohol and other drug use
- Chronic disease prevention and management
- Communicable disease prevention and control

- Environmental and occupational health
- Healthy growth and development
- Injury and violence
- Mental health
- Oral health
- Physical activity
- Reproductive and sexual health
- Tobacco use and exposure

To help monitor progress of the state health plan, there were 16 health indicators identified and they are listed below. The health indicators are classified into Health Outcomes (Premature death, low birth-weight, self-reported health status, all-ages death rate, infant death rate, 1-24 year old death rate, 25-64 year old death rate, 65+ year old death rate); Health Behaviors (Smoking, obesity, excessive drinking, teen birth rate, chlamydia rate); Clinical Care (No insurance among 0-17 years old, no insurance among 18-64 years old), and Social and Economic Factors (percent children in poverty). We present a few of those indicators in this population health improvement plan.

### 2.3 Selected Health Outcomes

Select health outcomes are highlighted below. These and other health outcomes are explored in detail in the following sections.

#### **Premature deaths**

Although over the 10 year period, the mortality rates decreased from a high of 780 per 100,000 in 2003 to a low of 720 per 100,000, it is a matter of concern that the age-adjusted mortality rates are slightly increasing since 2010. In addition, premature deaths as measured by the Years of Potential Life Lost have also increased. Infant mortality rates are stationary

#### **Infant death rate**

Although Wisconsin's infant death rate is decreasing overall, disparities by subgroup are apparent when the trend and current values are broken out by gender, race/ethnicity, geography, and socioeconomic level.

#### **Low birth weight**

Overall 7 percent of all births are low birth weight babies. The trend has been stationary in Wisconsin.

#### **Self-reported health**

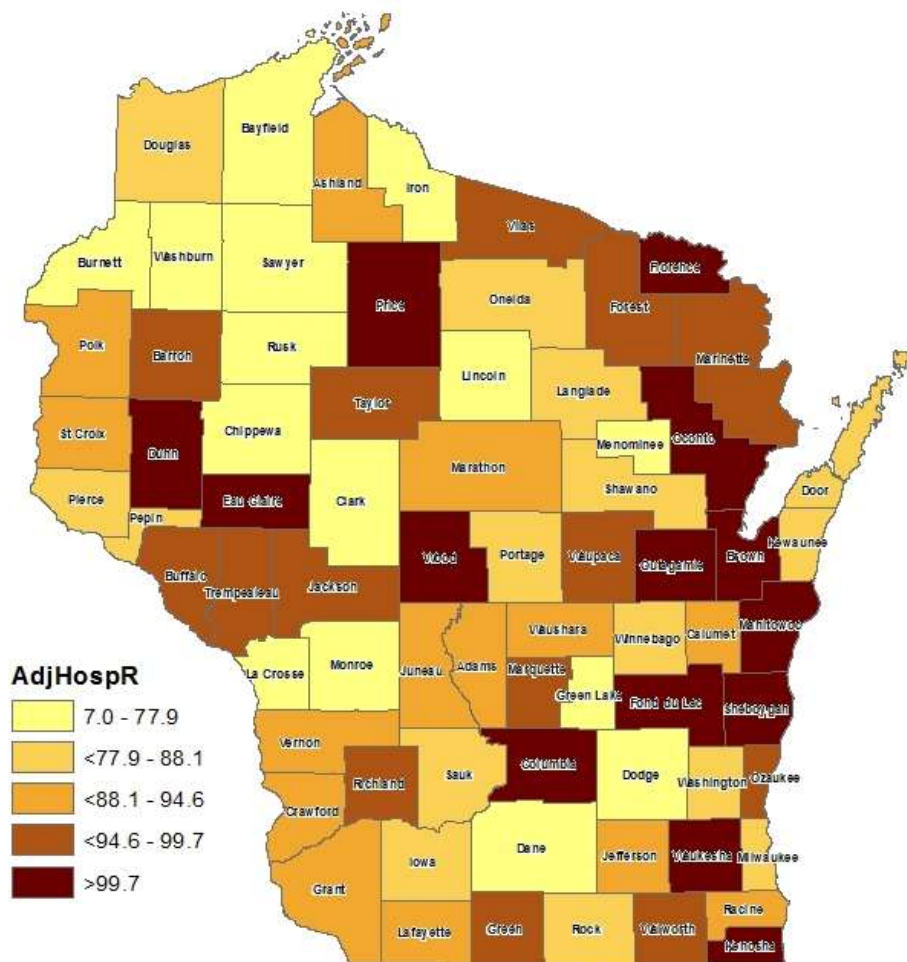
Wisconsin adults reporting fair to poor health has been consistently increasing with 2 percent annual increase.

### 2.4 Communities With Health Disparities

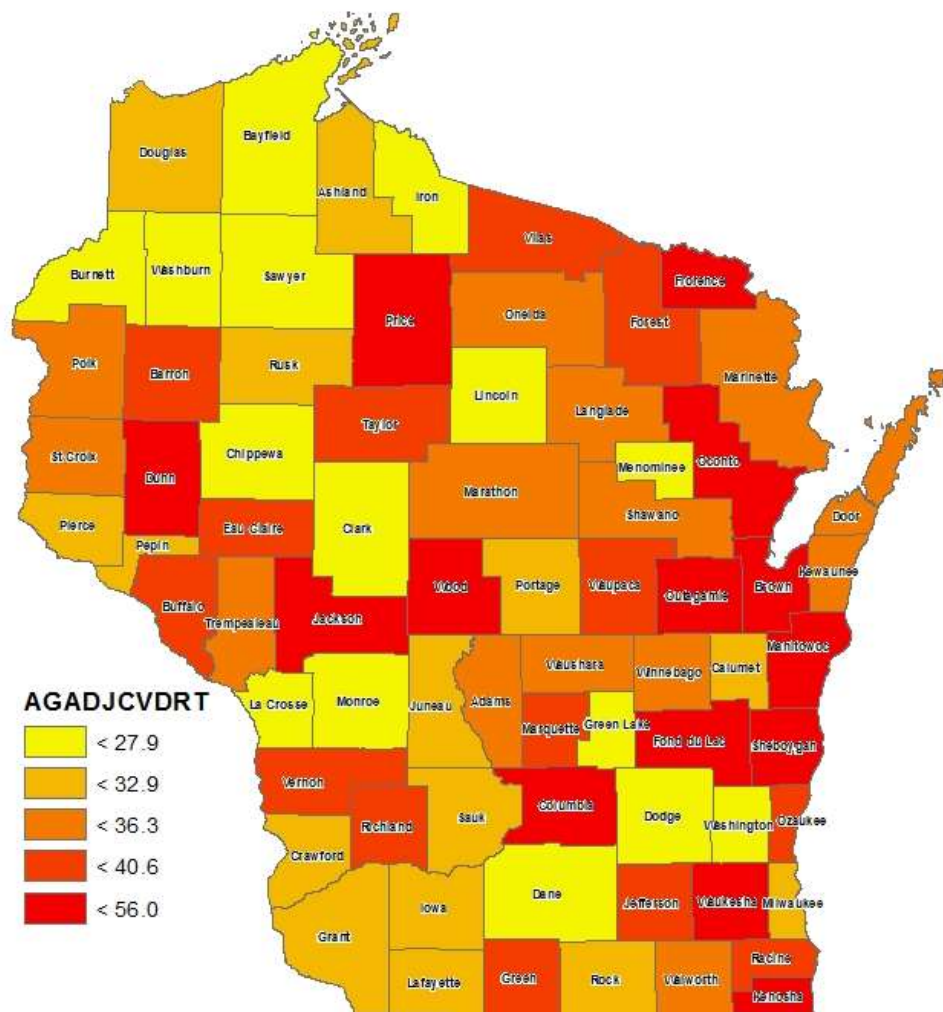
#### **All hospitalizations**

The following maps demonstrate how some counties of the state and particularly those clustering in the eastern region of the state have higher rates of hospitalizations from all causes to cancer and

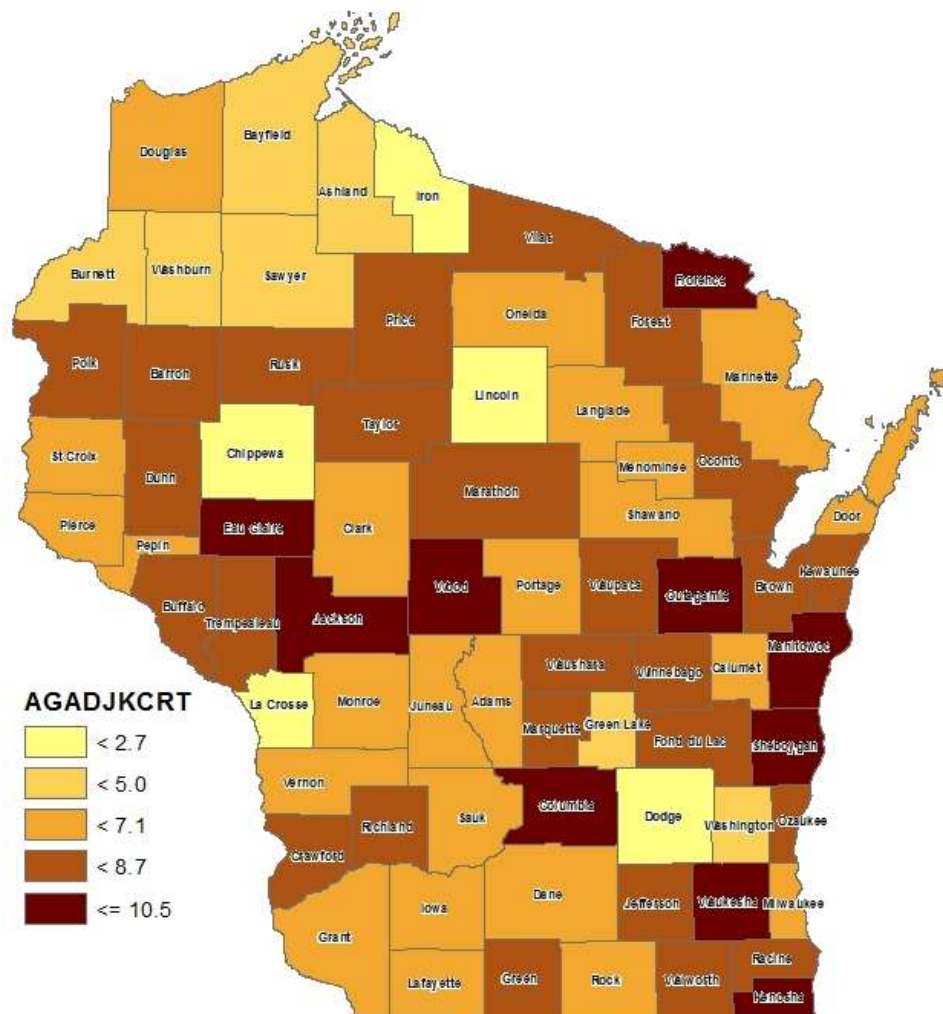
injuries. One of the limitations of this data is the lack of data access from the bordering counties that are using out of state services.



**Figure IV.2: Age-adjusted All Causes of Hospitalization Rates per 1,000 County Residents, Hospital Discharge Data, 2013.**

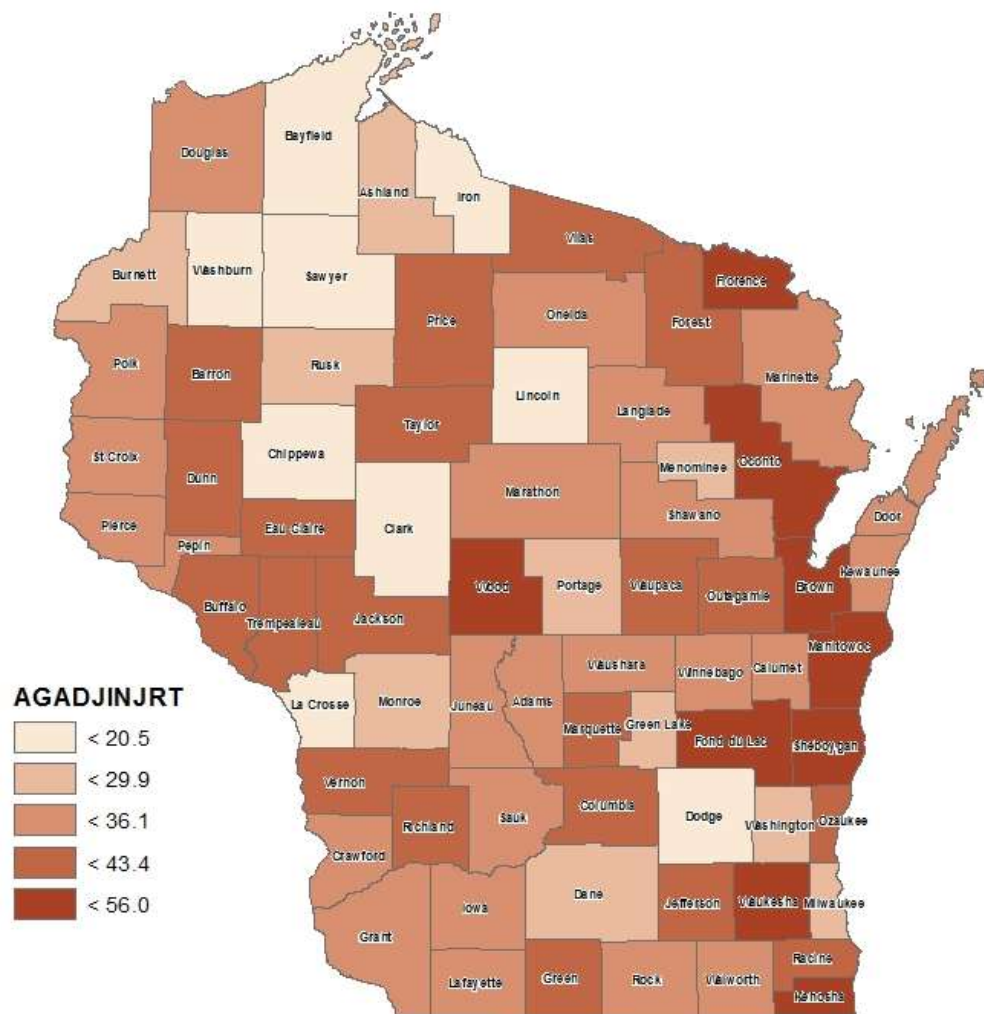


**Figure IV.3: Age-adjusted Cardiovascular Disease Hospitalizations per 1,000 County Residents, Hospital Discharge Data, 2013.**



**Figure IV.4: Age-adjusted Cancer Hospitalization Rate per 1,000 County Residents, Hospital Discharge Data, 2013.**



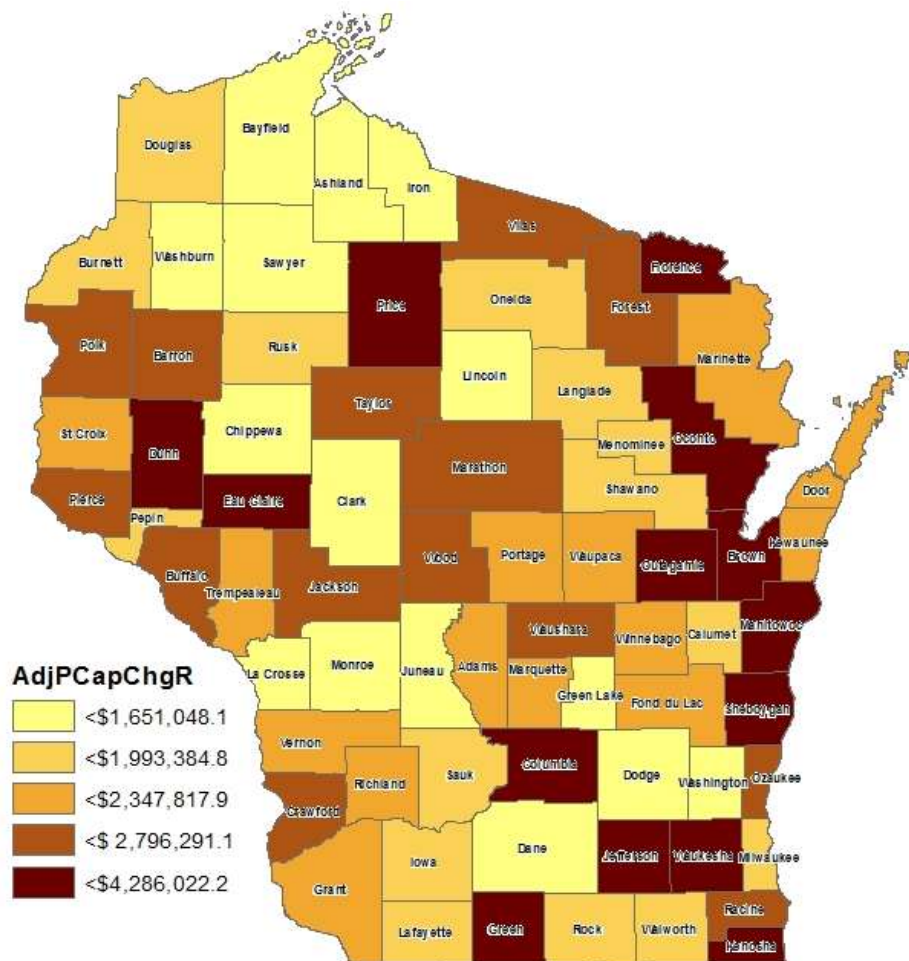


**Figure IV.5: Age-adjusted Injury Hospitalization Rate per 1,000 County Residents, Hospital Discharge Data, 2013.**



## Counties with Highest Hospitalization Costs

Figure 4 shows the age-adjusted hospitalization charges per 1,000 county residents. Charges from hospital discharges data have been used as a proxy for healthcare cost albeit with major limitations. The distribution shows a major cluster of high hospital charges in counties in the eastern region of the state. These charges reflect how much would have been shared among 1,000 residents adjusting for the difference in age of the hospitalized.



**Figure IV.6: Age-adjusted Hospital Charges per 1,000 County Residents, Hospital Discharge Data, 2013.**

## 2.5 Collaborations to improve health overall

Many ongoing health improvement initiatives bridge public and private sector organizations, including connecting government agencies and private sector organizations to one another. Community Health Assessments and Improvement Plans have also spurred local collaboration around a variety of issues. To facilitate collaboration, the University of Wisconsin's Population Health Institute [lists](#) organizations and counties working on eight health improvement priorities featured in over 30% of the state's

community health needs assessments. These priorities are: access to care, excessive alcohol consumption, drug abuse, mental health needs, nutrition, obesity, physical activity, and tobacco use.<sup>8</sup>

The Wisconsin Health Improvement Planning Process (WI-HIPP) has the potential to further improve alignment and collaboration for health across many sectors and silos. Drawing on the state health plan Healthiest Wisconsin 2020 and the priorities identified by local health departments and communities in their Community Health Assessments (CHAs) and Community Health Improvement Plans (CHIPs), WI-HIPP planners will select three to five health priorities, develop a statewide plan to address them, and implement the plan while selecting the next priorities.

WI-HIPP is using target selection criteria (see section VI) developed by SIM and the advice of the Public Health Council to select its health priorities. Around these priorities it intends to facilitate collaboration while disseminating best practices and implementation tools to interested stakeholders. WI-HIPP has established a steering committee of stakeholders from a variety of departments and agencies, including the Department of Children and Families, the Department of Public Instruction, the Wisconsin Association of Local Health Departments and Boards, employers, payers, and Community Action Agencies which focus on programs to better the lives of low income people.

### **3. DISEASE MORTALITY AND MORBIDITY**

US life expectancy has been steadily increasing and seems to have plateaued at 79 years between 2010 and 2014.<sup>9</sup> Compared to other states, Wisconsin is ranking 18<sup>th</sup> in age-adjusted mortality rate. When the age-adjusted mortality rate by all causes is displayed on a map using quintile distribution, Wisconsin is placed among the 2nd lowest quintile.<sup>10</sup> From 2003 to 2013, the age-adjusted mortality rates were lower in Wisconsin (720.1 per 100,000 in 2013) compared to the nation (731.9 per 100,000). While the US age-adjusted mortality rates declined consistently over the years, in Wisconsin, the rates ceased to decline from 2010 onward (Figure IV.6). Although over the 10 year period, the mortality rates decreasing from a high 780 per 100,000 in 2003 to a low 720 per 100,000, it is a matter of concern that the age-adjusted mortality rates are slightly increasing since 2010. In addition, premature deaths as measure by the Years of Potential Life Lost have also increased.

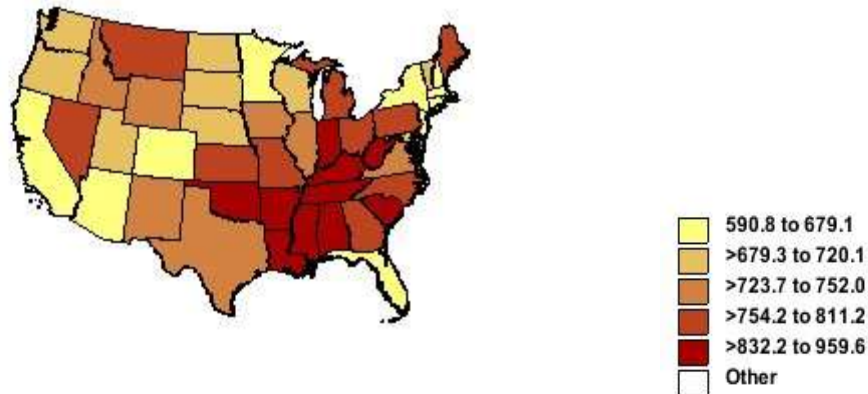


Figure IV.7: Age-adjusted Mortality Rate in the US, CDC Wonder, 2013.

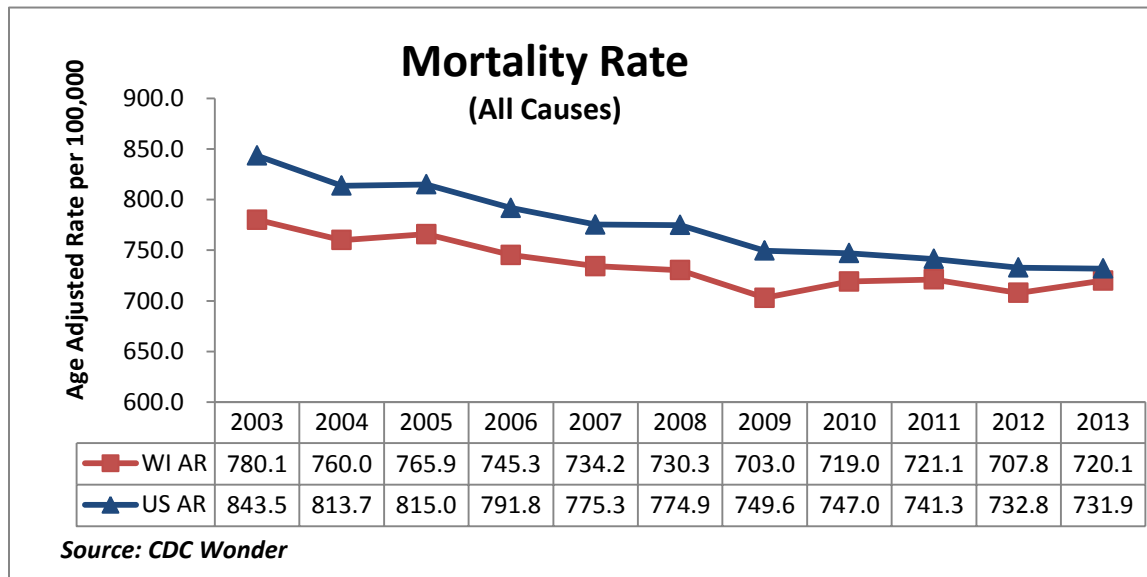


Figure IV.8: Age-adjusted Mortality Rate Trend Comparing Wisconsin and US, 2003-2013.

### 3.1 Leading Causes of Mortality and Morbidity in Wisconsin

From 2003 to 2013, on average diseases and injuries were responsible annually for 50,000 deaths and 648,000 hospitalizations in Wisconsin. Malignant cancers were the overall leading causes of deaths in Wisconsin followed by heart diseases and unintentional injuries (Table IV.2). While pregnancies and birth related issues were the overall leading causes of hospitalizations followed by connective tissues and skeletal diseases (i.e. psoriasis, rheumatism, osteopathies), digestive systems (i.e. ulcer, appendicitis, hernia), and heart diseases (i.e. congestive heart failure, ischemic heart failure, and other).

Just for 2013, among the 50,026 deaths, 11,425 (22.8%) were due to cancers; 11,362 (22.7%) to heart diseases and 2,969 (5.9%) to unintentional injuries. Among infants (< 1 year of age), congenital anomalies (23%) were the leading cause of deaths, followed by prematurity (22%) and Sudden Infant Death Syndromes (SIDS, 5%). Unintentional injuries were the leading cause of death among the 1 to 44 years of age. However, it is important to note child cancers, which were second and third leading causes of death among the 1-14 years of age. Unintentional injuries (fall, drug poisoning and car crashes) were the leading cause of death among 1-44 years of age. Injuries constitute a public health emergency among the youth. For example, among the 15-24 years of age unintentional, suicide and homicide represented 80 percent of all injury deaths.

In contrast, the leading causes of hospitalizations in Wisconsin in all ages were pregnancies and birth related issues followed by connective tissues disorders such as rheumatism, digestive system disorders, and heart diseases and respiratory illnesses. Pregnancy related hospitalizations were more prevalent among the 15-44 years old. Mental problems such psychosis, personality disorders, and behavioral health issues were the second leading cause of hospitalizations among the younger people (5-44 years of age).

**Table IV.2: Five Leading Causes of Mortality in Wisconsin, 2014.**

Age Groups											
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	All Ages
1	Congenital Anomalies 95	Unintentional Injury 12	Unintentional Injury 12	Unintentional Injury 13	Unintentional Injury 225	Unintentional Injury 329	Unintentional Injury 275	Malignant Neoplasms 805	Malignant Neoplasms 2,114	Heart Disease 9,465	Malignant Neoplasms 11,425
2	Short Gestation 91	Congenital Anomalies ---	Congenital Anomalies ---	Malignant Neoplasms ---	Suicide 101	Suicide 144	Malignant Neoplasms 194	Heart Disease 553	Heart Disease 1,150	Malignant Neoplasms 8,215	Heart Disease 11,362
3	SIDS 19	Malignant Neoplasms ---	Malignant Neoplasms ---	Suicide ---	Homicide 45	Malignant Neoplasms 59	Heart Disease 141	Unintentional Injury 359	Unintentional Injury 306	Chronic Low Respiratory Disease 2,424	Unintentional Injury 2,969
4	Maternal Pregnancy Comp. 16	Homicide ---	Homicide ---	Benign Neoplasms ---	Malignant Neoplasms 21	Homicide 46	Suicide 130	Suicide 198	Chronic Low Respiratory Disease 273	Cerebro-vascular 2,223	Chronic Low Respiratory Disease 2,789
5	Placenta Cord Membranes 14	Benign Neoplasms ---	Chronic Low Respiratory Disease ---	Cerebro-vascular ---	Congenital Anomalies 11	Heart Disease 39	Liver Disease 40	Liver Disease 153	Diabetes Mellitus 204	Alzheimer's Disease 1,655	Cerebro-vascular 2,536

**Table IV.3: Five Leading Causes of Hospitalizations in Wisconsin, 2014.**

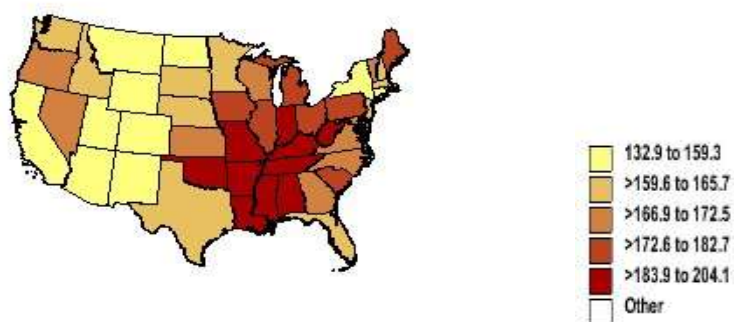
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	All Ages
1	Perinatal related disease 2,287	Respiratory Disease 2,209	Respiratory Disease 874	Psychosis/Dementia 2,137	Pregnancy/Birth 18,439	Pregnancy/Birth 40,673	Pregnancy/Birth 8,967	Connective Tissue/Skeletal 8,307	Connective Tissue/Skeletal 14,471	Heart Disease 34,698	Pregnancy/Birth 68,232
2	Respiratory 1,677	Other Undefined Illnesses 469	Psychosis/Dementia 481	Mental/Behavior 1,400	Psychosis/Dementia 6,927	Psychosis/Dementia 6,039	Psychosis/Dementia 5,752	Digestive/Ulcer 8,225	Digestive/Ulcer 9,568	Respiratory Disease 26,754	Connective Tissue/Skeletal 55,956
3	Congenital 748	Unintentional Injuries 431	Digestive/Ulcer 432	Digestive/Ulcer 645	Mental/Behavior 4,047	Digestive/Ulcer 3,420	Digestive/Ulcer 4,885	Psychosis/Dementia 6,638	Heart Disease 9,328	Connective Tissue/Skeletal 26,424	Digestive/Ulcer 51,957
4	Other Undefined Illnesses 554	Central nervous system 412	Mental/Behavior 429	Respiratory 398	Digestive/Ulcer 2,203	Mental/Behavior 2,743	Connective Tissue/Skeletal 3,327	Heart Disease 4,792	Respiratory 7,474	Digestive/Ulcer 22,011	Heart Disease 51,177
5	Digestive/Ulcer 267	Connective Tissue/Skeletal 327	Central Nervous System 389	Unintentional Injuries 363	Unintentional Injuries 1,650	Unintentional Injuries 1,612	Mental/Behavior 2,243	Respiratory 4,521	Malignant Neoplasms 4,768	Infection 14,692	Respiratory 47,942

### 3.2 Cancer in Wisconsin

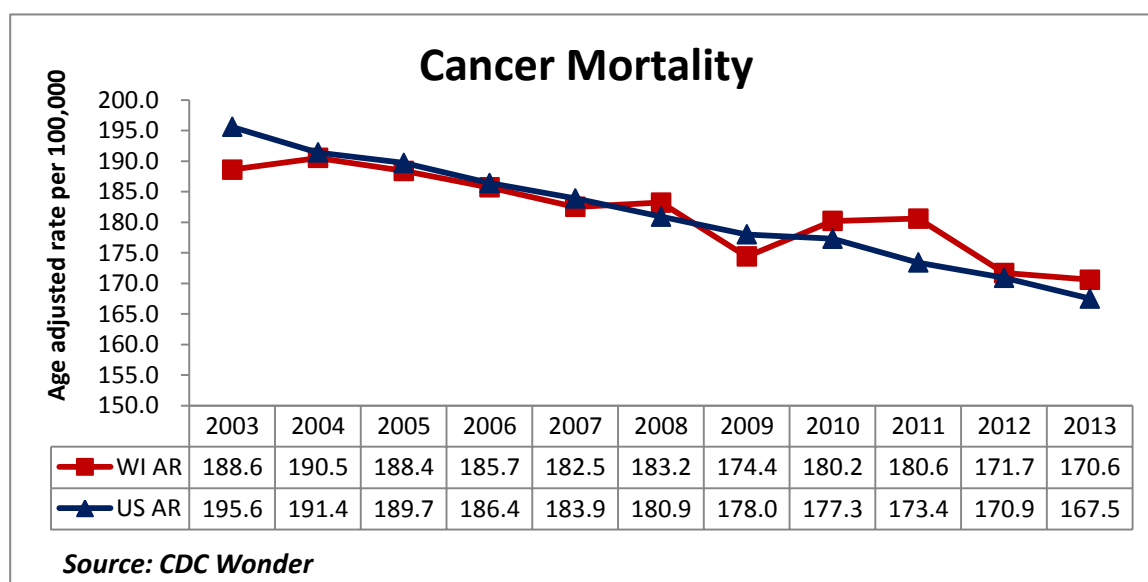
Wisconsin's age-adjusted mortality rate positions the state in the third quintile of cancer deaths (Figure 11). There were no differences in cancer mortality between the state age-adjusted mortality rate and the national rate. The age-adjusted mortality rate trended downward (Figure IV.8). The age-adjusted cancer mortality rates were on average 40 percent higher among males (204.5 per 100,000 in 2013) compared to females (146.3 per 100,000 in 2013). The 10-year age-adjusted cancer mortality rates showed a 22 percent decline with a greater percent decline among males than females (Figure IV.9). Note the age-adjustment takes away from the analysis the ageing population and allows better comparison between different groups.

The overall five leading causes of cancer mortality in Wisconsin are lung cancers followed by colorectal and pancreatic cancers, breast and prostate, and leukemia. When stratified by gender, breast cancer is the 2<sup>nd</sup> leading cause of cancer deaths among women after lung cancer, followed by pancreatic and ovary cancers, and leukemia. Among men, prostate cancer is the second leading cause of death after lung cancer, followed by colorectal cancer, pancreatic and leukemia (Table IV.4).

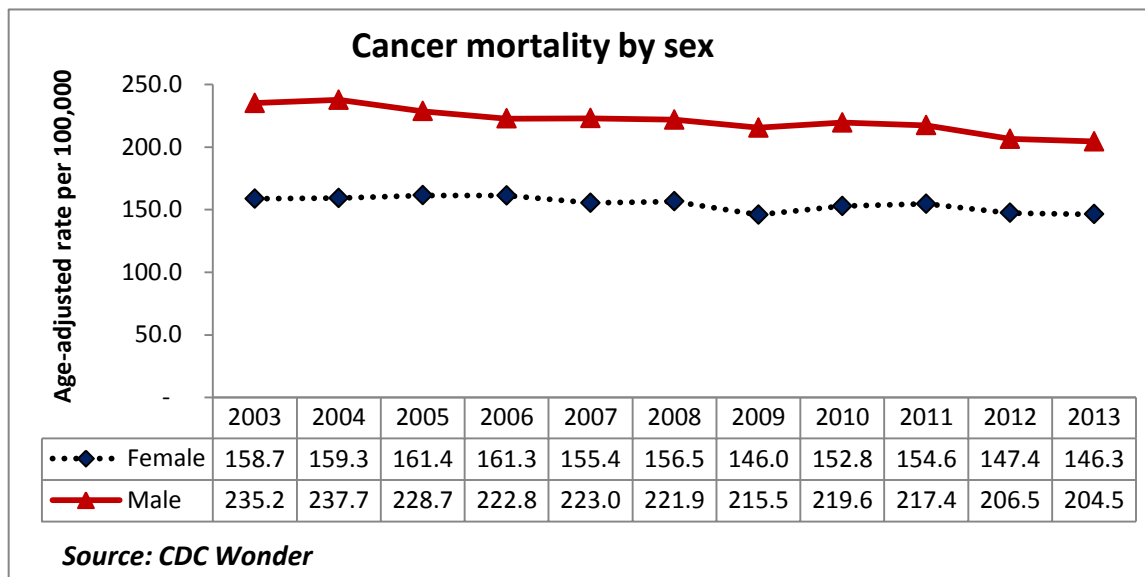
Blacks had the highest age-adjusted mortality rates in Wisconsin followed by Whites, and then by Asians and Natives (Figure IV.12). However because of low numbers caution is a must when interpreting rates among Asians and Natives. Blacks had a higher age-adjusted mortality rates in most cancer types compared to Whites. On average, the age-adjusted cancer mortality was 50 percent higher among Blacks than among Whites. For most cancer types the age-adjusted rates were still higher with varied relative risk (Table IV.5).



**Figure IV.9: Age Adjusted Cancer Mortality Rate in the United States – CDC Wonder, 2013.**



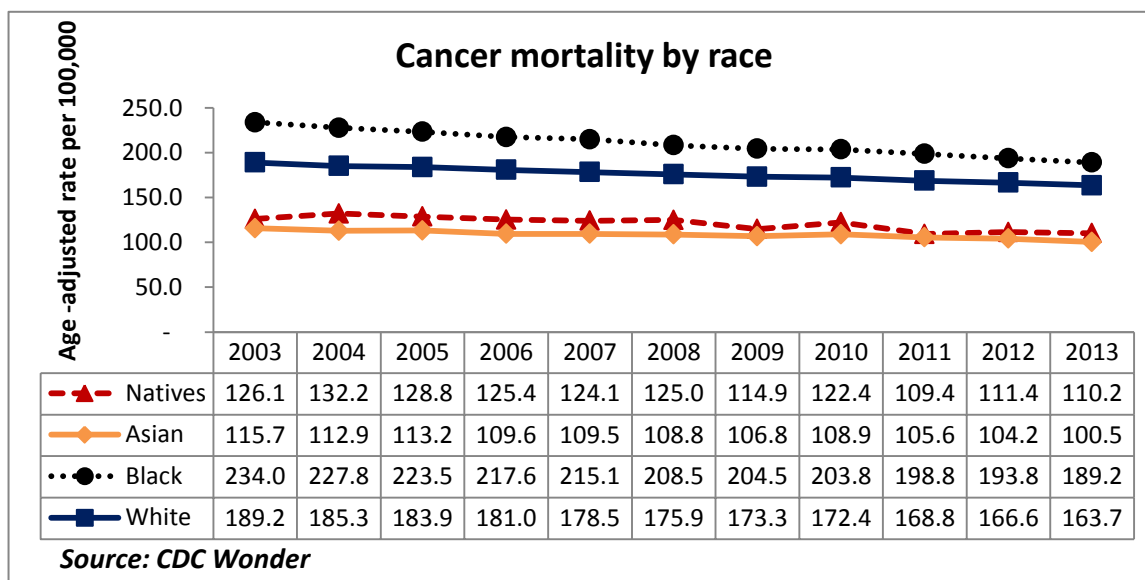
**Figure IV.10: Cancer Mortality Trends, US vs. Wisconsin, 2003-2013.**



**Figure IV.11: Age-adjusted Cancer Mortality per 100,000 by Sex in Wisconsin, 2003-2013.**

**Table IV.4: Five Leading Causes of Cancer Mortality by Gender in Wisconsin, CDC Wonder, 2013.**

Cancer Deaths	Female N (%)	Male N (%)	Total
Pulmonary (C33-C34)	1328 (25%)	1602 (27%)	2,930
Colorectal (C18-C21)	482 (9%)	449 (8%)	931
Pancreas (C25)	404 (8%)	377 (6%)	781
Breast (C50)	763 (14%)		763
Prostate (C61)		564 (10%)	564
Leukemia (C91-C95)	182 (3%)	321 (5%)	503
All Malignant neoplasms (C00-C97)	5362	5890	11,252



**Figure IV.12: Cancer Mortality by Race, CDC Wonder, 2003-2013.**

**Table IV.5: Number, Percent and Age-adjusted Rate per 100,000 of Leading Causes of Cancer Deaths by Race in Wisconsin, 2013.**

Cancer types	Native N (%)	Asian N (%)	Black N (%)	White N (%)	Total
Lung Cancer (C33-C34)	29 (35%)	18 (21%)	191 (32%)	2694 (25%)	2,932
Colorectal (C18-C21)	10 (12%)	*	58 (10%)	902 (8%)	970
Pancreas (C25)	*	*	35 (6%)	774 (7%)	809
Breast (C50)	*	*	47 (8%)	719 (7%)	766
Prostate (C61)	*	*	24 (4%)	577 (5%)	601
Leukemia (C91-C95)	*	*	18 (3%)	510 (5%)	528
Unspecified (C17,C23-C24,C26-C31,C37-C41,C44- C49,C51-C52,C57-C60,C62-C63,C66,C68- C69,C73-C80,C97)	*	10 (11%)	68 (11%)	1296 (12%)	1,374
Total	83	87	604	10,651	11,425

Notes: \* Number suppressed, NR= rate not reliable



### 3.3 Heart Disease

From 2003 to 2013, on average, 10,500 people died each year because of heart disease. The 165.1 per 100,000 age-adjusted heart disease mortality rate ranked Wisconsin 26<sup>th</sup> in the nation in 2013 and positioned the state in the median quintile. Although heart disease mortality rates were on the decline nationally, Wisconsin's age-adjusted rate had a slower rate of decline compared to the nation (Figure IV.13). Heart disease mortality rates were higher among males than females (Figure IV.14) and among Blacks and American Indians as compared to Whites and Asians (Figure IV.15). Asians had the lowest age-adjusted heart disease mortality rate in Wisconsin. More than half of heart disease deaths were due to chronic ischemic and acute myocardial infarction (Table IV.6).

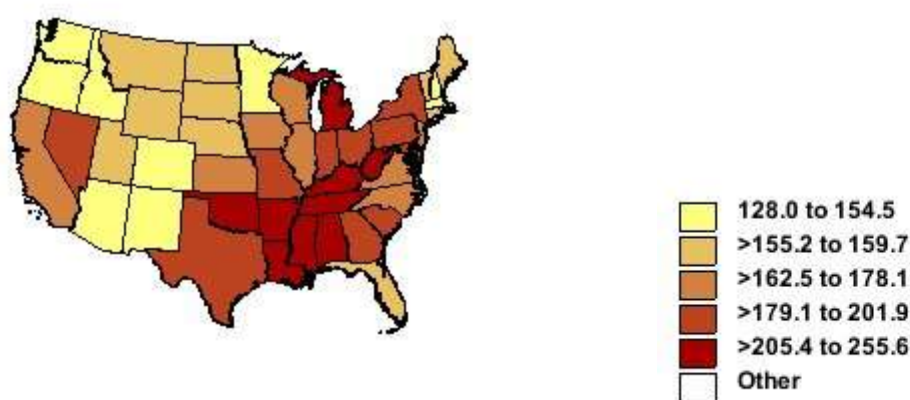


Figure IV.13: Age-adjusted Heart Disease Mortality Rate in the US, CDC Wonder, 2013

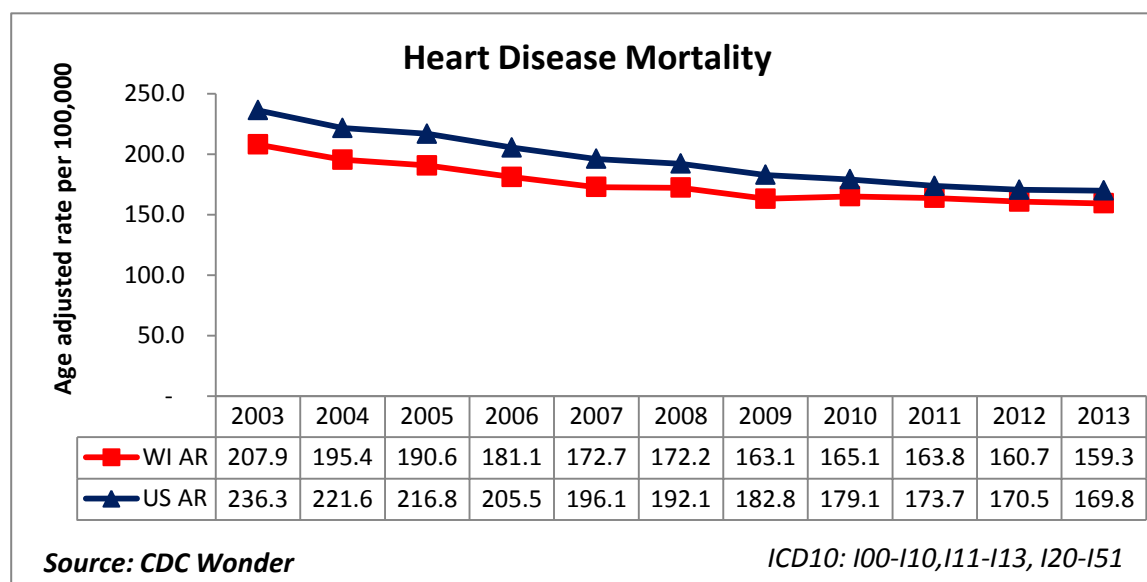
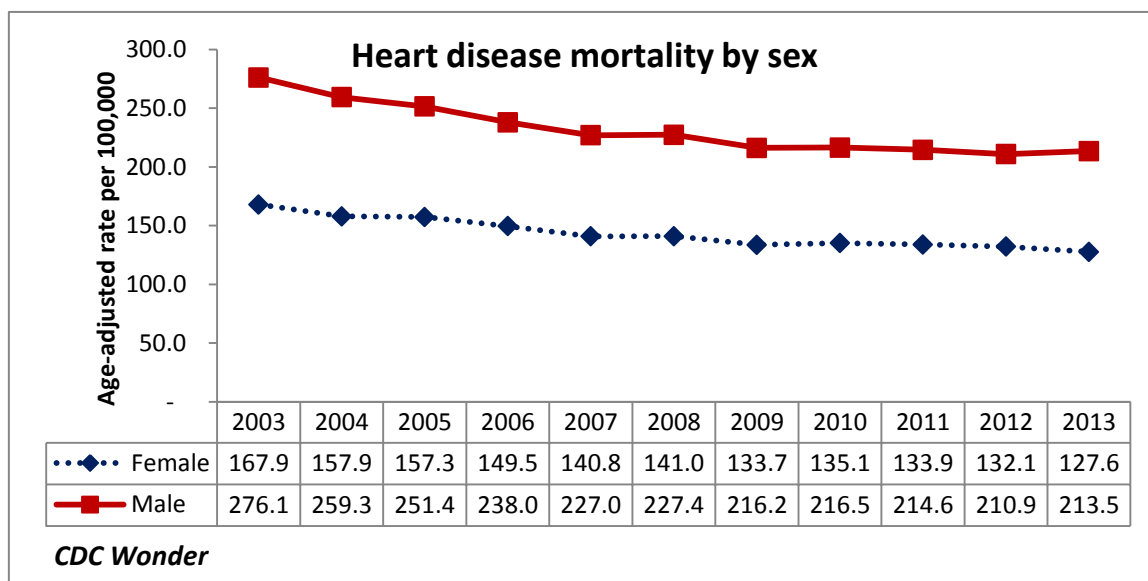


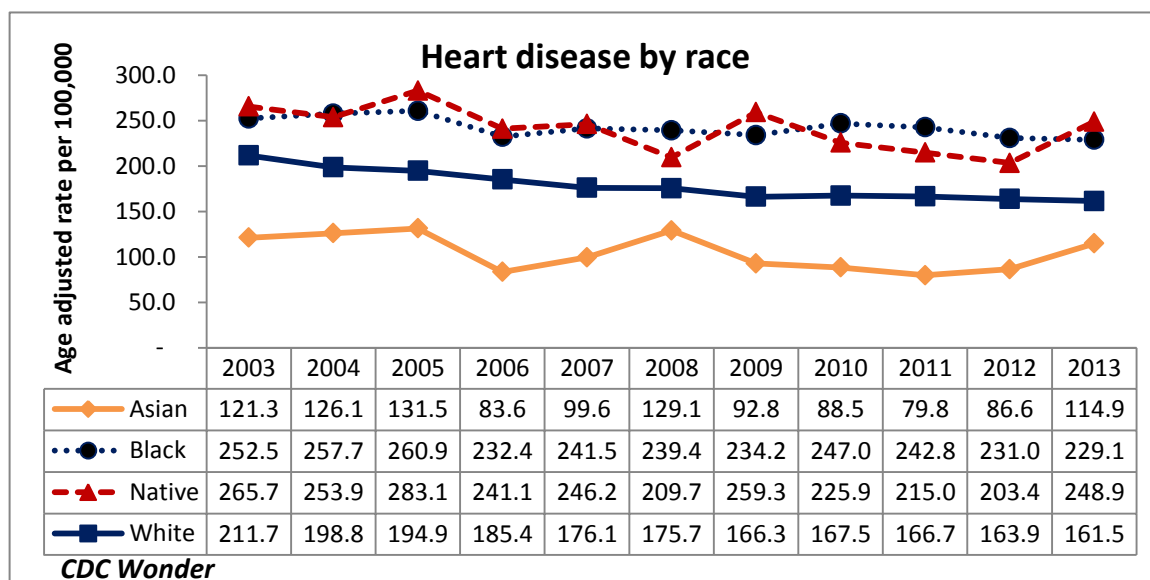
Figure IV.14: Age-adjusted Cancer Mortality Trends, Wisconsin vs. US, CDC Wonder, 2003-2013.



**Figure IV.15: Age-adjusted Heart Disease Mortality Trends by Sex, CDC Wonder, 2003-2013.**

**Table IV.6: Number and Percent of Heart Disease Deaths by Types and Sex in Wisconsin, CDC Wonder, 2013**

Heart Disease Types	Female	Male	Total
Chronic ischemic heart disease (I20,I25.1-I25.9)	1,407 (25%)	2,053 (33%)	3,460
Acute myocardial infarction (I21-I22)	1,008 (18%)	1,596 (26%)	2,604
All other heart disease (I26-I28,I34-I38,I42-I49,I51)	1,343 (24%)	1,067 (17%)	2,410
Heart failure (I50)	858 (15%)	636 (10%)	1,494
Atherosclerotic cardiovascular disease (I25.0)	262 (5%)	376 (6%)	638
Hypertensive heart disease (I11)	283 (5%)	237 (4%)	520
All Heart Diseases	5,552	6,231	11,783



**Figure IV.16: Age-adjusted Heart Disease Mortality Trends by Race, CDC Wonder, 2003-2013.**

**Table IV.7: Number and Percent of Heart Disease Deaths by Type and Race, CDC Wonder, 2013.**

Heart disease types	Native	Asian	Black	White	Total
Other chronic ischemic heart disease (I20,I25.1-I25.9)	24 (25%)	17 (24%)	203 (38%)	3,216 (29%)	3,460
Acute myocardial infarction (I21-I22)	28 (29%)	18 (25%)	64 (12%)	2,494 (22%)	2,604
Other forms of heart disease (I26-I28,I34-I38,I42-I49,I51)	16 (17%)	13 (18%)	105 (20%)	2,276 (21%)	2,410
Heart failure (I50)	*	*	37 (7%)	1,441 (13%)	1,478
Atherosclerotic cardiovascular disease (I25.0)	10 (11%)	*	31 (5%)	589 (5%)	630
Hypertensive heart disease (I11)	*	*	49 (4%)	465 (4%)	514
Total	95	71	535	11,088	11,789

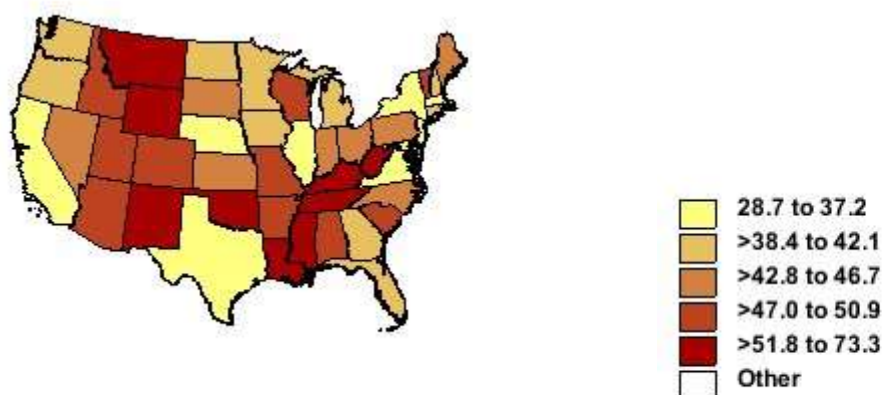
Notes: \* suppressed

#### Collaboration Around Hypertension

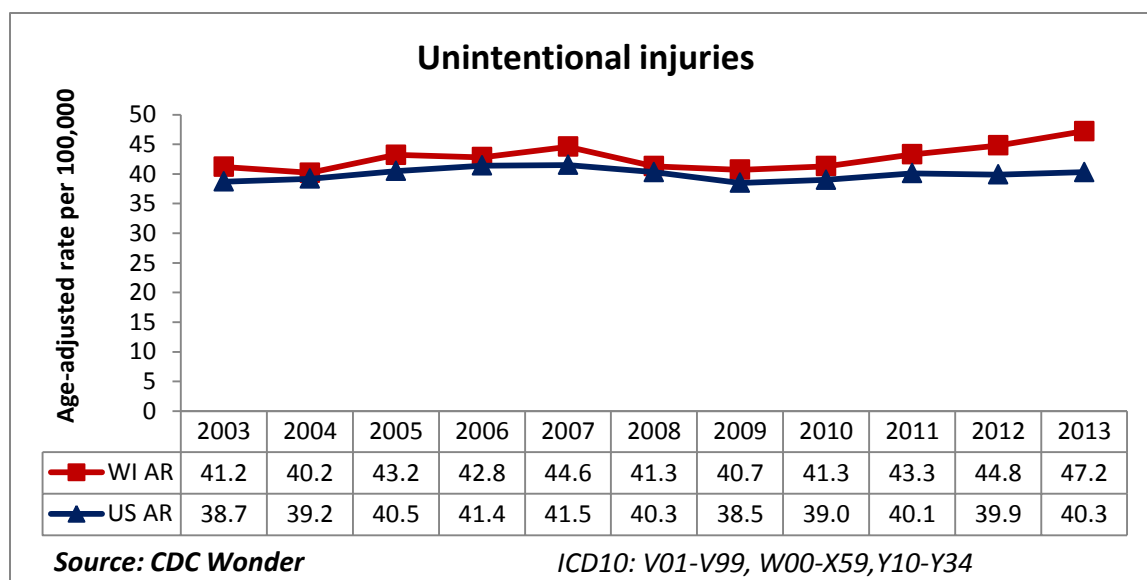
The Million Hearts challenge recognizes clinic and community providers who succeed in helping their patients lower their blood pressure. Pilots in Green County and the cities of Milwaukee and West Allis, in partnership with local health departments, community and faith-based organizations, clinics, and the American Heart Association are working to develop community screenings in underserved areas and bidirectional referrals between community health workers and primary providers.

### 3.4 Unintentional Injuries

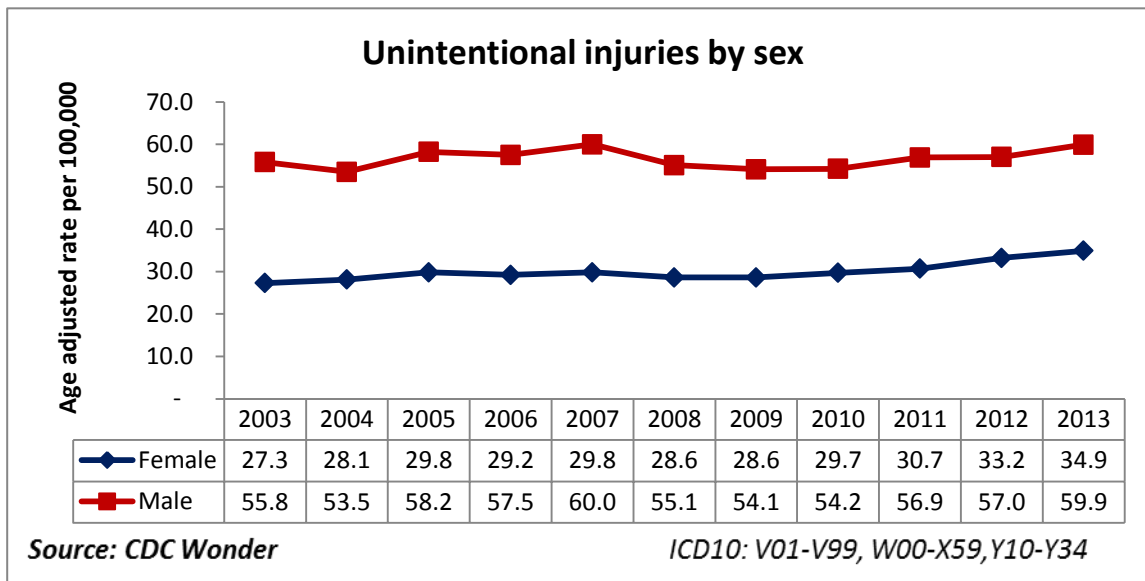
With its 2,984 deaths from unintentional injuries, Wisconsin ranked 19<sup>th</sup> and was positioned in the quintile with the second highest age-adjusted mortality rates. The age-adjusted unintentional deaths in Wisconsin started to surpass that of the US in 2011. The 2013 rate was 17 percent higher in Wisconsin than in the nation. Age-adjusted unintentional injury death rates were consistently higher among males as compared to females, and were higher among American Indians and Whites and Blacks but much lower among Asians (Figure IV.16).



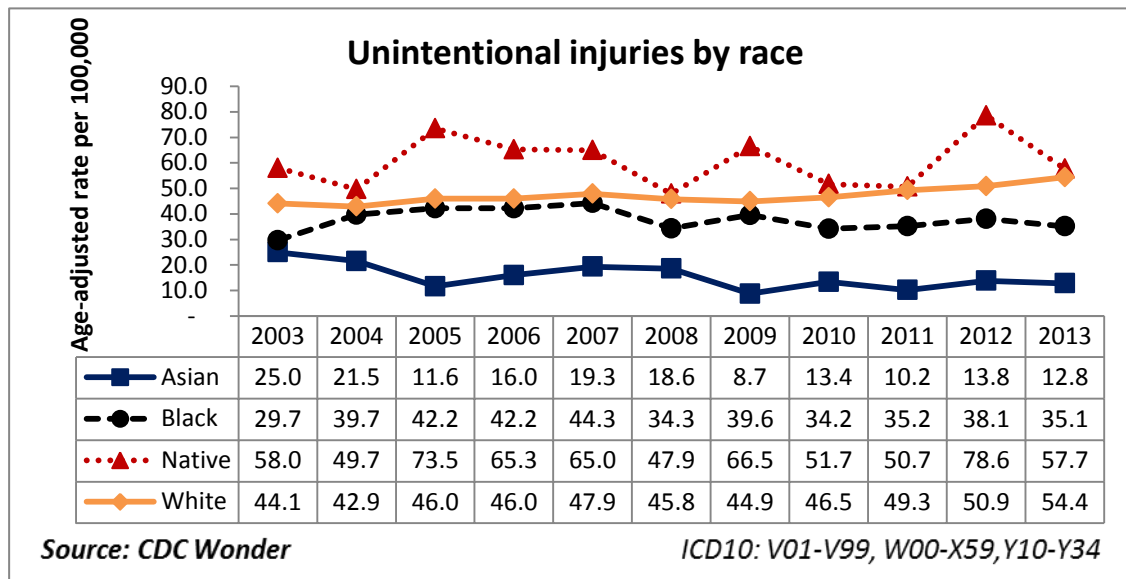
**Figure IV.17: Age-adjusted Mortality Rate Due to Unintentional Injuries in the US, CDC Wonder, 2013.**



**Figure IV.18: Age-adjusted Mortality Rate Due to Unintentional Injuries Comparing Wisconsin and US, CDC Wonder, 2003-2013.**



**Figure IV.19: Age-adjusted Mortality Trends Due to Unintentional Injuries by Sex, CDC Wonder, 2003-2013.**



**Figure IV.20: Age-adjusted Mortality Rate Due to Unintentional Injuries, CDC Wonder, 2003-2013.**

### 3.5 Infant Mortality

Although Wisconsin's infant death rate is decreasing overall, disparities by subgroup are apparent when the trend and current values are broken out by gender, race/ethnicity, geography, and socioeconomic level.

In 2013, 416 infants died in Wisconsin, which ranks the state 24<sup>th</sup> in the nation for infant mortality rate (Figure IV.23). As before with other mortality indicators, the state was positioned in the median quintile. There was no difference in infant mortality rate between the state and the nation (Figure IV.24). The mortality rate was constant from 2003 to 2013. Infant mortality was higher among Blacks than among Whites and Asians (Figure 20). Because of low numbers, the infant mortality rates among American Indians could not be presented.

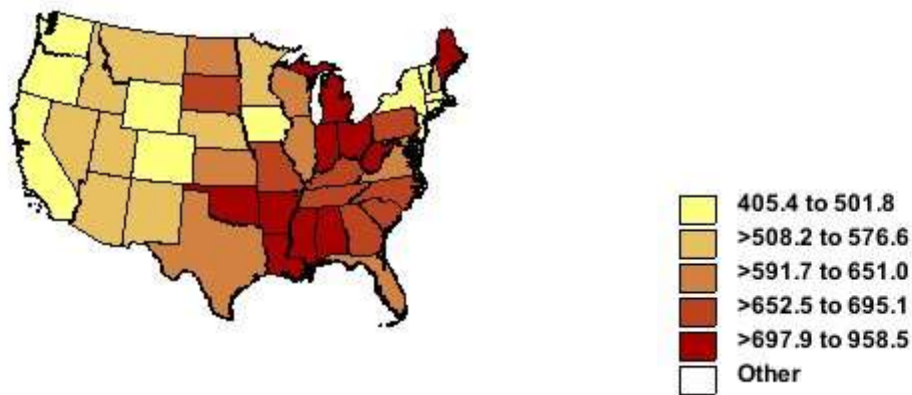


Figure IV.21: Infant Mortality Rate in the US, CDC Wonder, 2013.

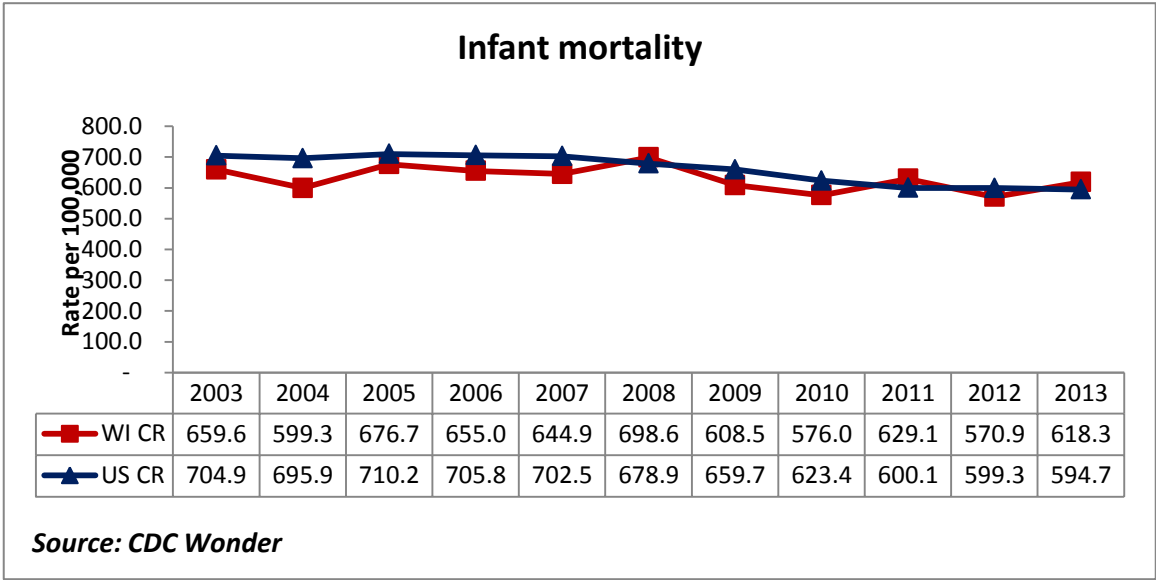
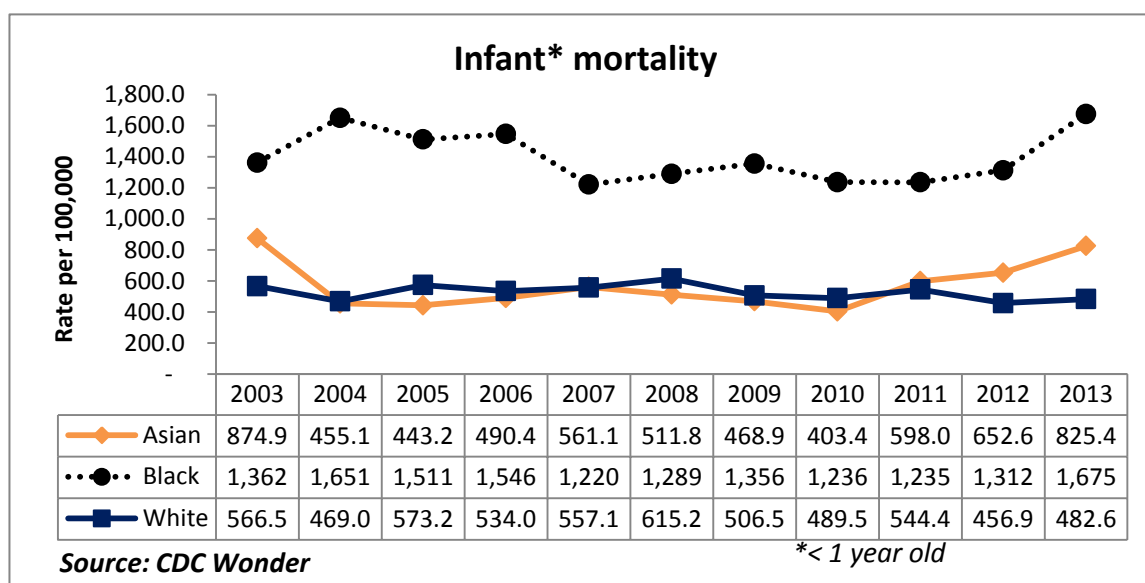


Figure IV.22: Infant Mortality Trend Comparing Wisconsin to US, CDC Wonder 2003-2013.



**Figure IV.23: Infant Mortality Rate in Wisconsin by Race, CDC Wonder, 2013.**

**Table IV.8: Number of Infant Death by Race and Causes, CDC Wonder, 2013.**

Cause of Deaths	Asian	Black	White	Grand Total
Extreme immaturity (P07.2)	*	27	46	73
Other preterm infants(P07.3)		*	12	12
Respiratory distress syndrome of newborn (P22.0)		*	10	10
Edwards' syndrome, unspecified (Q91.3)		*	16	16
Sudden infant death syndrome - SIDS (R95)		12	*	12
Total		20	273	411

\*Suppressed

### Maternal Child Health Initiatives

Wisconsin's Maternal and Child Health (MCH) priorities for 2016-2020 are: healthy behaviors; mental health and healthy relationships; injury prevention; preventive screening and follow-up; healthcare quality and access; health equity; and infrastructure to support data-informed strategies. Activities include supporting breastfeeding friendly workplaces, increasing access to smoking cessation services for postpartum women, and training medical and child care providers in developmental screening.

Locally, the Keeping Kids Alive in Wisconsin Program includes 55 teams that conduct comprehensive reviews of infant and child deaths in their communities to identify opportunities to reduce risks, improve coordination, eliminate system gaps, and prevent future deaths. DHS and the Children's Health Alliance of Wisconsin provide financial support and technical assistance to help teams and partners translate reviews into community action.

## Collaborations Around Maternal Child Health

The Wisconsin Family Foundations Home Visiting (FFHV) program exemplifies partnership across silos. Led by the Wisconsin Department of Children and Families in partnership with DHS, FFHV supports families with young children living in high-risk communities. FFHV equips families with resources and skills to raise children who are physically, socially and emotionally healthy and ready to learn.

The Collaborative for Innovation and Improvement Network (ColIN) is a public-private partnership to reduce infant mortality and improve birth outcomes by focusing on preconception health, safe sleep and social determinants of health. Currently, more than 50 stakeholders are participating in the 3 Wisconsin teams. This initiative is dedicated to implementing strategies and improving systems to reduce infant mortality and disparities in birth outcomes. The newly created Wisconsin Perinatal Quality Collaborative (WisPQC), including DHS and many provider associations and healthcare systems across the state, will build on the lessons learned through the Wisconsin Mortality Review System and the ColIN.

### 4. PREVALENCE OF SELECTED CONDITIONS

SHIP teams focused on those with diabetes and hypertension or depression and diabetes. There were no major differences in chronic disease prevalence such as depression, diabetes and hypertension between the state and the nation (therefore data not shown).

On average, the 2013 estimate of the lifetime prevalence of depression in Wisconsin was 18 percent. The prevalence of depression was higher among females and people who had less than high school as well as people with lower income. Adults over the age 65+ had the lowest lifetime prevalence of depression compared to the age groups. Table IV.9 shows the demographic distribution of depression, diabetes and hypertension.

About 8 percent of adults in Wisconsin were diagnosed with diabetes. The prevalence increased with age, and was highest among those with low income.

It is estimated that 32 percent of adults in Wisconsin had a diagnosis of hypertension in 2013. Age was the only factor that was associated with an increase prevalence of hypertension. Among the 55 years and older, the prevalence of hypertension was 46 percent, reaching 62 percent among the 65 and older.

**Table IV.9: Prevalence of depression, diabetes and hypertension in Wisconsin by demographics, BRFSS 2013.**

Demographics	Depression- 95%CI		Diabetes - 95%CI		Hypertension - 95%CI	
Total	18.1	16.6 - 19.7	8.2		32.3	30.5 - 34.0
Male	13.2	11.1 - 15.2	8.2	6.8 - 9.6	33.5	30.9 - 36.0
Female	<b>22.9</b>	<b>20.6 - 25.1</b>	8.3	7.0 - 9.6	31.1	28.7 - 33.4
18-24	16.0	11.0 - 20.9	*		5.3	2.5 - 8.1
25-34	20.3	16.0 - 24.5	*		11.1	7.8 - 14.4
35-44	18.8	14.5 - 23.0	3.7	1.5 - 5.9	21.9	17.2 - 26.6
45-54	21.0	17.5 - 24.6	8.1	5.8 - 10.4	<b>35.5</b>	<b>31.4 - 39.6</b>



55-64	21.9	18.4 - 25.5	<b>11.8</b>	9.4 - 14.3	<b>45.7</b>	<b>41.7 - 49.7</b>
65+	<b>10.9</b>	<b>8.5 - 13.3</b>	<b>19.9</b>	17.0 - 22.9	<b>61.6</b>	<b>57.9 - 65.3</b>
White	17.6	16.0 - 19.1	7.8	6.9 - 8.8	32.7	30.9 - 34.5
Black	25.0	15.5 - 34.5	15	7.7 - 22.2	41.6	31.0 - 52.3
Hispanic	22.1	12.1 - 32.1	*		21.2	12.7 - 29.8
Other	11.5	4.9 - 18.0	9.5	4.0 - 15.1	19.6	11.4 - 27.9
Less than H.S.	<b>27.3</b>	<b>20.2 - 34.5</b>	10	6.0 - 14.0	38.7	31.1 - 46.3
H.S. or G.E.D.	16.4	13.8 - 18.9	10.5	8.7 - 12.4	34.9	31.9 - 37.8
Some post-H.S.	18.9	16.2 - 21.6	7.3	5.7 - 8.9	31.4	28.4 - 34.5
College graduate	15.7	13.3 - 18.2	5.3	4.0 - 6.6	27.1	24.3 - 30.0
Less than \$15,000	<b>38.9</b>	<b>32.6 - 45.2</b>	<b>11.2</b>	<b>7.6 - 14.7</b>	33.7	27.9 - 39.5
\$15,000- 24,999	22.3	18.1 - 26.5	<b>13.0</b>	<b>10.1 - 15.9</b>	40.8	35.9 - 45.7
\$25,000- 34,999	18.7	14.2 - 23.3	10.3	7.3 - 13.2	39.2	33.8 - 44.7
\$35,000- 49,999	13.8	10.6 - 17.0	7.1	4.9 - 9.2	30.6	26.3 - 34.9
\$50,000+	14.4	12.1 - 16.6	4.9	3.7 - 6.1	28.0	25.3 - 30.6

\*Suppressed; significant results in **bold**

## 5. DISEASE PREVALENCE AND ASSOCIATED RISK FACTORS

### 5.1 Determinants of Health

The 2010 Census estimated Wisconsin's population at 5.7 million. From 2000 to 2010, a seven percent decline in birth rate from 12.9 per 1,000 to 12.0 per 1,000 people. Compared to the US in general, Wisconsin decline in birth rate is slower than the US (9.7%). In 2009-2013, the total population of Wisconsin was estimated at 5.7 million - 2.9 million (50%) females and 2.8 million (50%) males. The median age was 38.7 years. An estimated 23 percent of the population was under 18 years and 14 percent was 65 years and older.

In 2009-2013, there were 2.3 million households in Wisconsin. The average household size was 2.4 people compared to 2.6 people in the US. In terms of household composition, Wisconsin was not different than the nation as a whole. Families made up 64 percent (vs. 66%) of the households in Wisconsin. This figure includes both married-couple families (50% vs. 49%) and other families (14% vs. 18%).

Of other families, 6 percent (vs. 7%) are female householder families with no husband present and own children under 18 years. Nonfamily households made up 36 percent (vs. 34%) of all households in Wisconsin. Most of the nonfamily households were people living alone, but some were composed of people living in households in which no one was related to the householder. In Wisconsin, 30 percent (vs. 33%) of all households have one or more people under the age of 18; 25 percent of all households have one or more people 65 years and over.

Although Wisconsin is going through demographical changes, it is less diverse than the nation. In Wisconsin, among people reporting one race alone, 89 percent (vs. 76%) were White; 6 percent (13%) were Black or African American; 1 percent was American Indian and Alaska Native; 2 percent were

Asian; less than 0.5 percent was Native Hawaiian and Other Pacific Islander, and 2 percent were some other race. An estimated 2 percent reported two or more races. An estimated 6 percent (vs. 17%) of the people in Wisconsin were Hispanic. An estimated 83 percent of the people in Wisconsin were White non-Hispanic. People of Hispanic origin may be of any race.

In addition, five percent of the people living in Wisconsin were foreign born compared to 13 percent nationally. Of the foreign born population, 42 percent were naturalized U.S. citizens. Among people at least five years old living in Wisconsin, 9 percent spoke a language other than English at home compared to 21 percent nationally. Of those speaking a language other than English at home, 53 percent spoke Spanish and 47 percent spoke some other language compared to 62 percent and 38 percent respectively; 38 percent of people reported that they did not speak English "very well" compared to 42 percent nationally.

## **Social and Economic Factors**

### **Education**

In general, Wisconsin's socioeconomic performance was mixed compared to the nation. Although 90 percent of people 25 years and over had at least graduated from high school compared to 86 percent nationally, 27 percent had a bachelor's degree or higher compared to 29 percent in the nation. While in Wisconsin, 10 percent did not complete high school, the proportion is 14 percent in the nation. The total school enrollment in Wisconsin was 1.5 million in 2009-2013. Nursery school and kindergarten enrollment was 168,200 and elementary or high school enrollment was 902,200 children. College or graduate school enrollment was 427,900.

According to the 2013 BRFSS, lack of education was associated with lifetime depression, diabetes and hypertension. Individuals with some college or less had an 11 percent prevalence of diabetes, 31-36 percent prevalence of hypertension, and 19 percent prevalence of depression.

### **Employment**

In terms of employment, the differences between Wisconsin and the nation are not significant. Sixty percent of the population 16 and over was employed in Wisconsin, compared to 58 percent nationally; 32 percent (vs. 36 percent) were not currently in the labor force. An estimated 82 percent of the people employed were private wage and salary workers; 13 percent were federal, state, or local government workers; and 5 percent were self-employed in their own (not incorporated) business.

Compared to non-hypertensive Wisconsinites, individuals with hypertension had 60 percent employment rate vs. 74 percent. Meanwhile, individuals with diabetes had an employment rate at 54 percent compared to 71 percent for non-diabetics. Depression was associated with a lower employment rate at 52 percent compared to 71 percent for people without depression.

## Poverty

The median income of households in Wisconsin was \$52,413. An estimated 11 percent (vs. 13%) of households had income below \$15,000 a year and 7 percent (vs. 10%) had income over \$150,000 or more. An estimated 79 percent of the households received earnings and 18 percent received retirement income other than Social Security. An estimated 29 percent of the households received Social Security. The average income from Social Security was \$17,828. These income sources are not mutually exclusive; that is, some households received income from more than one source.

In Wisconsin, 13 percent of people were in poverty compared to 15 percent nationally. An estimated 18 percent (vs. 21%) of related children under 18 were below the poverty level, compared with 8 percent of people 65 years old and over. An estimated 9 percent of all families and 31 percent of families with a female householder and no husband present had incomes below the poverty level. Income was associated with chronic conditions. The BRFSS reports individuals with less than \$35,000 a year had the higher prevalence of lifetime depression (25%), diabetes (12%) and hypertension (39%) compared to individuals who had more than \$35,000 a year.

About 56 percent of Wisconsinites over the 200 percent Federal Poverty Level (FPL) had diabetes, 68 percent had hypertension and 50 percent had depression.

## **Clinical Care**

Among the civilian non-institutionalized population in Wisconsin in 2009-2013, the American Community Survey (ACS) reports 91 percent had health insurance coverage and 9 percent did not have health insurance coverage compared to a respective national proportion of 85 percent and 8 percent. For those under 18 years of age, 5 percent had no health insurance coverage. The civilian non-institutionalized population had both private and public health insurance, with 73 percent having private coverage and 31 percent having public coverage. The proportion of children (less than 17 years of age) without health insurance declined from 9 percent to 7 percent. In contrast, the percent of adults (18-64) without health insurance has been increasing.

The BRFSS reports eight percent of Wisconsinites with diabetes did not have health insurance and four percent did not have a usual source of care. Among people with hypertension, 10 percent did not have health insurance and seven percent did not have a usual source of care.

## Collaborations Around the Social and Economic Determinants of Health

### Southwestern Wisconsin Community Action Program

Community-level health improvement initiatives spanning many sectors are not common. However, in Wisconsin's major nonprofits, there is already coordination that could and has been leveraged to improve health. For example, the Southwestern Wisconsin Community Action Program (SWCAP) found that many clients needed but couldn't get dental care. SWCAP used DHS seed funds and partnered with Federally Qualified Health Centers and local health departments to offer dental services and build

dental clinics for their clients. When clients come for dental care, they are screened for their other needs and informed of other SWCAP services.

SWCAP offers assistance to low income individuals in many areas, including early education, housing, weatherization, food pantries and WIC services, transportation, employment training and small business support. Clients are informed of other services when they access any service point, but are not directly referred unless they ask for referral. SWCAP is working to develop a database of its services and compatible client records.

SWCAP also offers reproductive health services. The organization is currently applying for a grant to analyze the health and social service needs of people suffering from mental health issues, and to coordinate with clinicians, schools, jails, and other partners to meet those needs.

#### United Way

United Way similarly offers many services and often works to improve health. United Way Fox Cities asked why youth weren't getting the mental health services they needed. Many students were low income, underinsured or uninsured, on waiting lists, and lacking transportation. United Way piloted Providing Access to Healing (PATH) to bring therapists to students in schools. The program has now expanded to include 10 school districts, and a cost-benefit analysis showed positive results.

With partners, United Way has coordinated many other initiatives to improve health. These include: helping families afford premiums in Dane County; working with providers to combat obesity in the Fox Valley; teaching businesses and nonprofits about the effects of adverse childhood events in Manitowoc; using collective impact to improve birth outcomes in Milwaukee; and increasing care access and coordination for low income people with the Milwaukee Health Care Partnership.

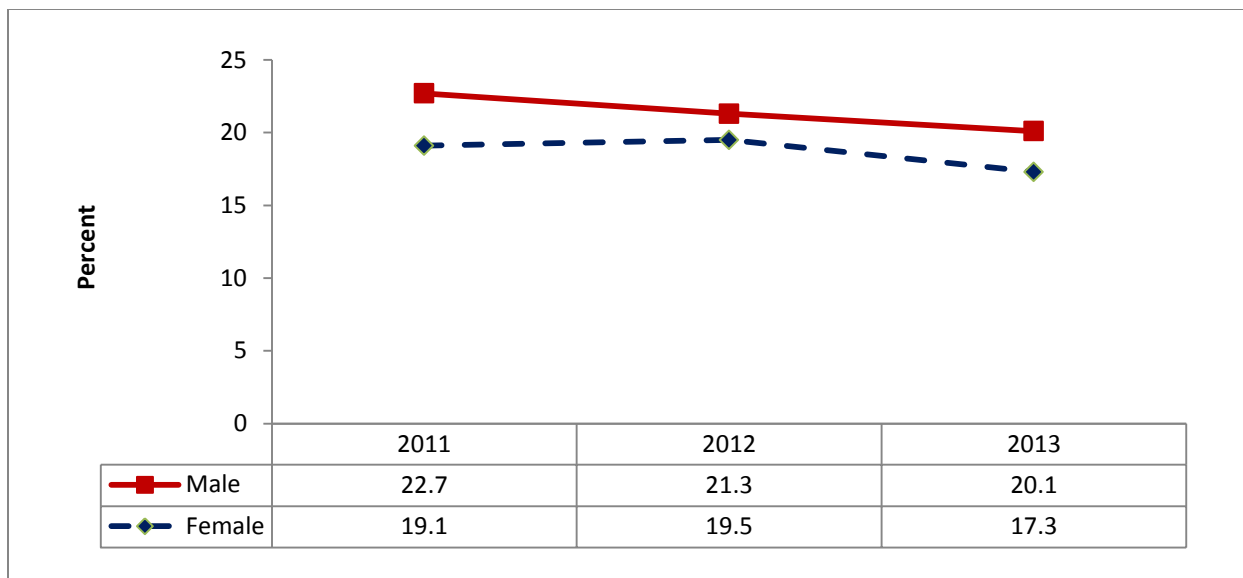
#### Local Government and Non-Profit Partnerships

Similarly, some counties are using shared services to address health through social and economic factors. Through local health departments, for example, five counties (Eau Claire, Chippewa, Dunn, Pierce and Barron) are looking to identify families who would benefit from connection to a public health nurse and have other needs such as for education, access to care, or job training. Another group of counties (Waushara, Waupaca, Green Lake, Adams, Juneau, and Marquette) is using a joint community health assessments/community health improvement plan (CHA/CHIP) process to consider how they can improve health through social and economic factors and better mental health.

## 5.2 Health Behaviors

### **Tobacco (areas with healthy/low rates)**

Smoking rates have been decreasing by 2.5 percent annually on average. Although males were still more likely to smoke, rate of decline was steeper among men. There were no major differences in smoking rates when Wisconsin is compared to the nation. However, despite the smoking rate decline, still 18 percent of adults reported actively smoking (Figure IV.23).



**Figure IV.24: Prevalence of Smoking by Gender, BRFSS 2011-2013**

#### Tobacco initiatives

Tobacco initiatives in the state focus on helping tobacco users quit, reducing youth tobacco access and use, combatting smokeless tobacco, and reducing exposure to secondhand smoke. DHS offers training, technical assistance, evaluation support, communications assistance and funding to many initiatives. The department is also instrumental in funneling national findings and information to local partners.

To help smokers quit, the Wisconsin Tobacco QuitLine provides counseling and nicotine replacement therapy medication. Smokers may call the QuitLine, or providers can send referrals to the QuitLine, which will then call their patients. QuitLine staff make one follow up call to further assist clients. With Division of Health Services support, the University of Wisconsin's Center for Tobacco Research and Intervention offers training and technical assistance to help health systems integrate cessation counseling and quitline referral into their workflow. The Center assists hospitals, Federally Qualified Health Centers, substance abuse and mental health providers, dentists and dental assistants, and other providers. The Department of Mental Health and Substance Abuse Services helps fund the integration of tobacco cessation services in mental health and substance abuse facilities.

First Breath helps expectant mothers quit smoking by helping them develop a cessation plan and connecting them to providers who can offer nicotine replacement therapy. Striving to Quit offers funding to support QuitLine and First Breath services for Medicaid recipients evaluate whether incentives for patients increase the efficacy of these programs.

To combat youth tobacco use, Wisconsin Wins works to educate retailers about products that cannot be sold to youth and the laws governing tobacco product promotion, and conducts inspections to ensure compliance. In FACT, a youth-led movement, youth educate their peers about the dangers of tobacco. The Not-On-Tobacco program, offered through schools, helps youth quit tobacco or reduce

their tobacco use. Finally, Spark, a statewide initiative sponsored by DHS and coordinated by the American Lung Association, helps young adults advocate for 100% smoke free college campuses.

To reduce exposure to secondhand smoke, the Clear Gains Network, a collection of organizations statewide, educates businesses and landlords about the benefits of smoke free policies and offers them model policies. DHS supports but does not administrate the Clear Gains Network. The state's Tobacco Prevention and Control program also works with the state's asthma reduction program, promotes smoke free policies in multiunit housing, and works with local law enforcement to penalize businesses in violation of the state's smoke free workplace law.

### *Collaborations Bridging Silos*

Many community coalitions work to educate the public about the dangers of alternatives to cigarettes such as e-cigarettes, and work to keep e-cigarettes prohibited under local smoke free ordinances. DHS supports these coalitions with information and data.

DHS' Chronic Disease Prevention Unit (CDPU), which is responsible for many physical activity and nutrition initiatives, collaborates with the Tobacco Prevention and Control Program through quarterly meetings to find integration opportunities. These units typically collaborate on media or specific issues such as e-cigarettes. In initiatives targeting children, CDPU also partners with the Department of Public Instruction and the Department of Children and Families. Barriers to these collaborations include the lack of steady, dedicated funding for cross-division initiatives. As the collaborators are dependent on grants, their priorities can shift, making consistent collaboration toward a single goal challenging. Competing priorities and time constraints can also pose an issue for all involved parties. Child care providers, for example can find it difficult to find time for trainings, perhaps indicating a need for more flexible training options.

### **Physical Activity and Nutrition**

Prevalence of obesity has been on the rise. Obesity prevalence among adults 18-64 years old increased from 28 percent in 2011 to 30 percent in 2013. Inactivity and an unhealthy diet influence an individual's caloric balance; together they represent a particularly powerful driver of obesity and related chronic diseases.<sup>11</sup> In Wisconsin, the obesity rate is paralleled with lack of physical activity. The 2013 BRFSS reports that 24 percent of adults in Wisconsin did not participate in any physical activities in the past month. Furthermore, nearly 45 percent of adults in Wisconsin did not achieve the recommended physical activity level of 150 minutes or more of aerobic physical activities every week. Unhealthy diet is measured by fruit and vegetable consumption. The 2013 BRFSS reports about 38 percent of Wisconsinites did not consume fruits, and 26 percent do not consume vegetables, more than one time a day.

### Physical Activity and Nutrition Initiatives

DHS offers communications, technology, data, administrative, and facilitation support to many Wisconsin initiatives. For example, DHS offers education, training and support to worksite wellness programs across the state. Food systems initiatives promote healthy options in grocery and

convenience stores and restaurants, as well as farmers' markets and stands, community supported agriculture, community gardens, and food pantries.

Active community initiatives work to increase access to recreational facilities and active modes of transportation. For example, initiatives support recreational use agreements, master plans, bike trail and lane construction, public transportation, and Safe Routes to School programs. The Wisconsin Partnership for Activity and Nutrition disseminates and promotes adoption of environmental and systems change strategies.

Health systems initiatives aim to increase prevention early detection and improve mitigation and management of chronic diseases. Initiatives also support clinic-community linkages to connect patients with chronic diseases to community resources. For example, DHS coordinates Wisconsinite participation in the Diabetes Prevention program to improve the physical activity and nutrition choices of those at risk for diabetes.

For children, the Wisconsin Breastfeeding Coalition works collaboratively with communities to promote and protect breastfeeding through initiatives addressing maternity policies and workplace lactation support. The Wisconsin Early Childhood Obesity Prevention Initiative works with educators to establish physical activity and nutrition programs and policies in child care and preschools. Other initiatives work to increase physical activity and improve nutrition in schools.

The local physical activity and nutrition coalitions in Wisconsin map to the above areas. Most are facilitated by local health departments. Others are led by hospitals, clinics, and YMCAs. They often have hospital CEOs, school superintendents, or city council people as members.

#### *Collaborations Around Physical Activity and Nutrition*

To further enhance collaboration, the relatively recent formation of healthTIDE supports alignment of nutrition and physical activity strategies across government, academia, communities, advocates, and funders. Housed at the University of Wisconsin – Madison, healthTIDE facilitates collective impact strategy development “tables” such as early childhood, schools, food systems, active communities, and healthcare, under a common agenda of obesity prevention and intervention.

#### **Alcohol**

Binge drinking is defined as five or more drinks for men and four or more drinks for women on a single occasion, one or more times in the past 30 days. Immediate consequences of excessive alcohol use include unintentional injury, violence, risky sexual behavior, and alcohol poisoning. Long-term consequences associated with heavy drinking include chronic diseases such as liver diseases and cancer; neurological and psychiatric conditions such as dementia and depression; and social problems such as job loss and family problems. In 2013-2014, Wisconsin ranked first in the nation for binge drinking among adults with significant disparities in the prevalence of adult risk behaviors. Adults in Wisconsin have a higher prevalence of alcohol use and binge drinking. The proportion of adults who currently drink alcohol in Wisconsin was 65 percent compared to 55 percent in the nation. Overall 23 percent of adults in Wisconsin reported binge drinking compared to 17 percent nationally.

With Wisconsin ranking first in the nation in the prevalence of binge drinking, it is reassuring that the rates have been going down around 1.4 percent per year from around 30 percent in 2011 to 23 percent in 2013. Alcohol abuse in Wisconsin was higher than the national rates across all socio-demographic indicators. Excessive drinking has been decreasing faster for males compared to females. American Indians, Asians and Hispanics had a higher prevalence rate of drinking than Whites or Blacks. Current alcohol uses and binge drinking rates were significantly higher in Wisconsin among males and younger age groups and significantly lower for Black adults compared to Whites; lower for people in the lowest income and education levels.



**Table IV.10: Current alcohol use and binge drinking comparing Wisconsin to national rates, BRFSS 2013.**

Demographics	Smoking			Alcohol consumption			Binge Drinking		
	US	WI	95% CI	US	WI	95% CI	US	WI	95% CI
Overall	19.0	18.7	17.1 - 20.2	54.5	64.6	62.7 - 66.5	16.8	22.5	20.9 - 24.2
18-24	-	15.9	11.4 - 20.4	52.8	62.3	55.7 - 68.9	26.1	39.4	33.0 - 45.8
25-34	-	28.6	23.6 - 33.5	62.4	72.4	67.5 - 77.3	26.5	32.7	27.4 - 38.0
35-44	-	21.5	17.2 - 25.8	59.9	69.9	64.9 - 74.9	19.7	28.8	24.2 - 33.5
45-54	-	22.6	18.7 - 26.4	55.6	67.6	63.5 - 71.7	15.7	22.1	18.4 - 25.8
55-64		18.6	15.5 - 21.6	53.2	63.8	59.9 - 67.7	10.4	14.4	11.5 - 17.3
65+	-	6.4	4.5 - 8.4	42.0	53.3	49.5 - 57.2	4.4	6.1	4.4 - 7.7
Male	-	20.1	17.8 - 22.5	61.2	69.0	66.3 - 71.8	22.2	28.8	26.2 - 31.4
Female		17.3	15.3 - 19.3	48.3	60.3	57.7 - 62.9	11.3	16.4	14.2 - 18.6
White	--	17.7	16.2 - 19.3	58.8	67.0	65.1 - 68.9	17.1	22.5	20.8 - 24.3
Black	-	30.8	20.8 - 40.7	44.7	48.3	37.6 - 59.1	12.5	18.7	10.3 - 27.1
Hispanic		18.2	8.7 - 27.6	46.2	56.1	44.0 - 68.3	18.7	30.3	17.7 - 42.9
Other	-	19.3	9.5 - 29.1	43.5	52.1	39.2 - 65.0	14.5	21.7	10.9 - 32.6
Less than H.S.	-	36.3	28.6 - 43.9	34.6	37.2	29.4 - 45.0	14.3	15.6	9.6 - 21.5
H.S. or G.E.D.	-	23.2	20.5 - 25.9	49.0	60.5	57.2 - 63.7	16.1	21.8	19.0 - 24.6
Some post-H.S.		17.2	14.5 - 19.8	57.9	68.3	65.1 - 71.6	17.8	25.1	21.8 - 28.5
College graduate	-	7.5	5.7 - 9.3	67.9	76.3	73.5 - 79.1	16.7	23.0	20.1 - 25.9
Less than \$15,000	-	36.2	29.7 - 42.7	37.7	48.9	42.3 - 55.5	14.1	23.7	18.0 - 29.3
\$15,000- 24,999		27.2	22.5 - 31.9	43.5	53.9	49.0 - 58.9	15.4	21.6	16.9 - 26.2
\$25,000- 34,999	-	21	16.5 - 25.6	48.9	60.2	54.5 - 65.8	15.6	18.4	14.0 - 22.8
\$35,000- 49,999	-	20.9	16.6 - 25.2	55.0	67.9	63.3 - 72.4	16.8	23.7	19.3 - 28.1
\$50,000+		10.9	9.0 - 12.7	66.4	75.1	72.4 - 77.9	18.6	26.0	23.2 - 28.8

### Drug Use

Illicit drug consumption in Wisconsin is not different than the national rate. Current and lifetime use of marijuana have decreased in Wisconsin. While rates of illicit drug abuse or dependence for people age 12 and older in Wisconsin and nationally have stayed relatively consistent since 2007 at about 3 percent of the population, there are differences between age groups. In 2011-2012, Wisconsin residents ages 18-25 were more likely to abuse or be dependent on illicit drugs (6%) than were those ages 12-17 (4%) or over age 26 (1%).

Both nationally and in Wisconsin, the use of prescription drugs for non-medical purposes continues to be a serious problem, especially among young adults. In 2011-2012, 9 percent of Wisconsin adults ages 18-25 reported using pain relievers for non-medical purposes in the past year. Among high school students in 2013, 15 percent reported illicit use of prescription drugs at some point in their lives.

### **Mental Health and Substance Abuse Initiatives**

Comprehensive Community Services allow counties and regional offices across the state to provide psychosocial services. Rural opiate treatment centers offer medication to those with opiate addictions and encourage primary care physicians to prescribe such medications. DHS also offers funding and training to promote crisis management in rural counties. Law enforcement and jails learn how to respond to behavioral health crises and refer people in crisis to treatment.

Peer Run Respite are a key part of Wisconsin's effort to improve community-based mental health services. Respite offer short-term stays in supportive environment during times of increased stress or symptoms. Staff successful in recovering from mental health or substance abuse difficulties provide non-medical, peer support designed to aid recovery, avert crises and avoid unnecessary hospitalizations.

Additional initiatives focus on reducing psychiatric hospital readmissions, preventing substance abuse, supported employment for people with behavioral health needs, training peer specialists to reduce substance abuse, and training health systems to prevent suicide.

#### *Collaborations Around Mental Health and Substance Abuse*

Initiatives bridging silos to improve mental health and reduce substance abuse include Coordinated Service Teams (CST). CST programs target children with behavioral health issues in two or more systems of care (such as mental health, long term care, juvenile justice, child welfare, substance abuse, or special education), and who have complex needs. Based on a wraparound model, families select the supports they believe their child needs and become part of the care team. Teams may include people from the above systems and other community supports such as faith-based organizations.

Similarly, the newly created Office of Children's Mental Health is tasked with the coordination and integration of services across state agencies for children with mental health needs.

Many Wisconsin communities have developed innovative strategies to address mental health and substance abuse issues. In Fond du Lac County, SPROUT offers developmental screening, health, and mental health resources for young children. Partners include schools and preschools, public health, hospitals, clinics, and community organizations. In Marathon County, the [AOD Partnership](#)<sup>12</sup> uses collective impact to reduce to tackle alcohol and drug abuse. Civic organizations, law enforcement, faith-based groups, youth, schools, businesses and health care work together to reduce underage substance abuse, impaired driving, and opiate use.

## **Sexual Activity (CHR, Teen Births)**

### Teen birth

Overall teen birth rates have been decreasing in Wisconsin 2.5 percent. In 2013, the teen birth rate was about 22 per 1,000 females (15-19 years of age).

### Chlamydia rate (STD) <sup>13</sup>

Sexually transmitted diseases as assessed by chlamydia are on the rise. In 2013, there were 6,773 chlamydia cases among youth 15-19 years of age reported to DHS. Females constituted over 79 percent of the cases with an incidence rate of 2,785 per 100,000 females compared to 681 per 100,000 males. The Chlamydia incidence rates were much higher among African-American followed by American-Natives with respective rates of 6151 per 100,000 and 1954 per 100,000 compared to Whites with an incidence rate of 723 per 100,000. The incidence rate of Chlamydia was highest in DHS Southeastern region.

### Adolescent Health Initiatives

DHS and partners are working to increase coordination around adolescent health through the Adolescent Health Systems Building Initiative, slated to begin in 2016. Based off the Head Start model, the Department will provide technical assistance, coaching, evaluation, ambulatory healthcare data from the Wisconsin Health Care Quality Collaborative, and a forum for inter-agency communication to organizations supporting adolescent health.

Many of these organizations already spearhead collaboration efforts across sectors. To improve adolescent healthcare, for example, Providers and Teens Communicating for Health facilitates workshops in which youth teach providers and other youth how to communicate with each other. Adolescent Health and Wealth offers financial literacy programming to youth health programs. The Milwaukee Adolescent Pregnancy Prevention Project coordinates agencies that provide healthcare and education to teens. The Wisconsin Personal Responsibility and Education Program coordinates six locally funded programs to prevent pregnancy and sexually transmitted infections among youth in schools, detention centers, and other agencies. Initiatives beginning in 2016 will include regional parent education workshops, quality improvement coaching for health providers, and youth engagement efforts through grants to local health departments.

### Sexually Transmitted Disease Initiatives

Initiatives around sexually transmitted diseases focus on epidemiological surveillance and analysis, prevention, testing, counselling, referral to treatment, and caring for the other needs of those living with such diseases. DHS often partners with the AIDS Resource Center of Wisconsin in these activities.

Prevention programs focus on needle exchange and condom use, as well as training providers in HIV prevention and care. DHS also regularly conducts communicable disease prevention trainings with the Department of Corrections. Testing occurs in outreach sites across the state, such as clinics, nonprofits, community events, needle exchange programs, and bars. Case managers link HIV positive people to

medical, dental, and behavioral care providers, and services to assist with other needs such as housing and transportation. Some patients also qualify for assistance with purchasing drugs, insurance, medical and behavioral care, and state-funded medical homes. DHS is currently developing an HIV prevention and treatment plan for the state.

**6. HEALTHCARE COVERAGE AND COST**

Among the civilian non-institutionalized population in Wisconsin in 2009-2013, the American Community Survey (ACS) reports 91 percent had health insurance coverage and 9 percent did not have health insurance coverage compared to a respective national proportion of 85 percent and 8 percent. For those under 18 years of age, 5 percent had no health insurance coverage. The civilian non-institutionalized population had both private and public health insurance, with 73 percent having private coverage and 31 percent having public coverage. The proportion of children (less than 17 years of age) without health insurance declined from 9 percent to 7 percent. In contrast, the percent of adults (18-64) without health insurance has been increasing.

The BRFSS reports eight percent of Wisconsinites with diabetes did not have health insurance and four percent did not have a usual source of care. Among people with hypertension, ten percent did not have health insurance and seven percent did not have a usual source of care. Among individuals (18-64) with depression nine percent did not have insurance coverage and five percent did not have a usual source of care.

According to Kaiser Family Foundation, in 2009 the average annual percent growth in healthcare expenditures or health spending—which includes spending for all privately and publicly funded personal healthcare services and products (hospital care, physician services, nursing home care, prescription drugs, etc.)—was not significantly greater than the nation at 6.5 percent. Overall, Wisconsin ranked 16<sup>th</sup> in the total per capita healthcare spending with \$7,233 per year compared to a national average of \$6,815. Hospital spending is included and reflects the total net revenue (gross charges less contractual adjustments, bad debts, and charity care). Costs such as insurance program administration, research, and construction expenses are not included in this total

The health accounts spending of Wisconsin mirrors the national trend. Over 67 percent of health spending in Wisconsin is based on hospital care and physician/professional services, with prescription drugs representing only 13 percent of all spending.

**Table IV.11: Distribution of Healthcare Expenditures by Service in Wisconsin (in millions).**

Location	Hospital Care	Physician and Other Professional Services	Prescription Drugs and Other Medical Nondurables	Medical Durables	Total
Wisconsin	\$15,428 (38%)	\$11,748 (29%)	\$5,096 (13%)	\$536 (1%)	\$40,871
United States	\$759,074 (36%)	\$572,668 (27%)	\$293,163 (14%)	\$34,878 (2%)	\$2,089,862

State Health Access Data Assistance Center and Kaiser Family Foundation

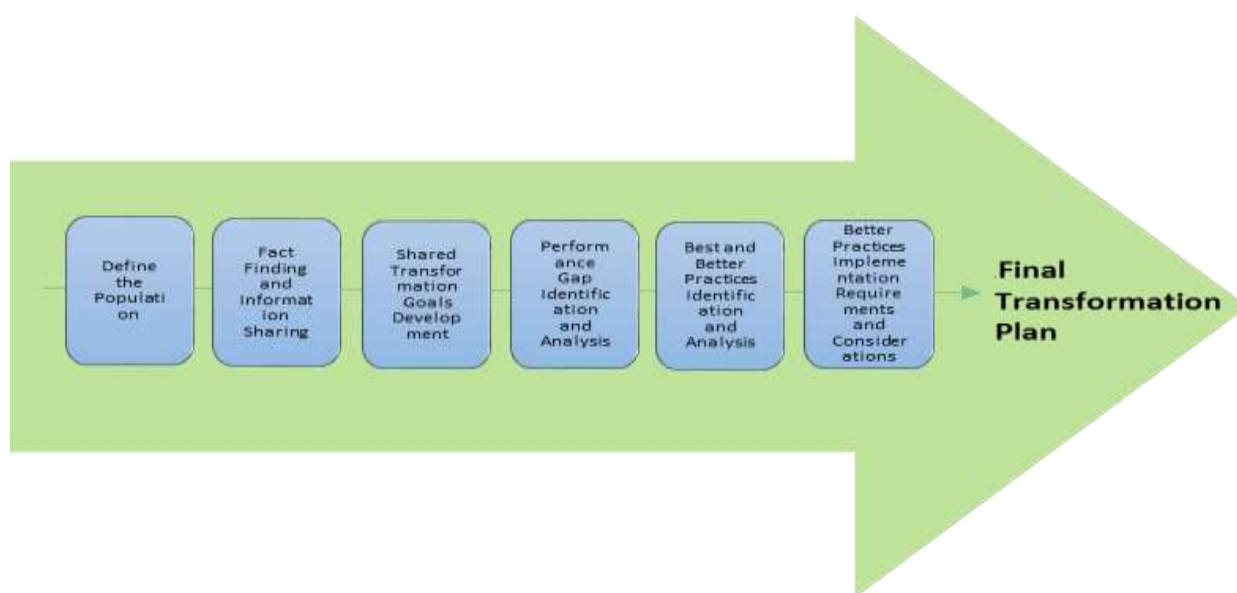
## 7. STAKEHOLDER ENGAGEMENT

The Workgroups and Advisory Panels (APs) were SHIP's primary means of engaging stakeholders. The workgroups included executives and officers from clinics, hospitals, health associations, payers, community organizations, and state and local health departments. The APs included many other such people from health systems, care institutions, boards of health, state health officials, community organizations, and payers, as well as many key people leading university initiatives to improve health across the state.

Other potential partners have not yet been engaged. These include legislators and local elected officials, departments beyond the state health department, economic developers and planners, and purchasers.

## 8. GOALS, OBJECTIVES, AND INTERVENTIONS

The SHIP and PHIP offer a two prong approach to population health improvement. First, they recommend a collective impact model to change both healthcare and community systems to improve health. The SHIP recommends adopting the processes below to create a collective impact plan.



**Figure IV.25: Transformation Planning Workflow.**

A backbone agency would then support health professionals and organizations from various community sectors as they selected and enacted interventions for their clients. The backbone would facilitate collaboration and systemic improvements, especially through technology, payment reforms, and evaluation assistance.

In the second prong, SHIP used the above processes to develop interventions. Recognizing the additional burden of multiple chronic conditions and the potential to improve factors that affect them both, SHIP targeted those with diabetes and hypertension or depression. The resulting interventions would improve health not only for these populations, but for Wisconsin as a whole by targeting

obesity, mental health, tobacco use and other health behaviors, patient resources, disparities, and systemic healthcare issues. The resulting goals and objectives are summarized below and further detailed in Section VI.

### Goals and Objectives

1. Optimize health and interrupt disease progression.
2. Make smarter investments to promote health and healthcare value.

The SHIP teams discerned where health was *not* optimized at each disease stage, and where avoidable outcomes with high treatment costs were *not* averted. They arrived at four strategic focus areas necessary to prevent poor outcomes and achieve these broad goals:

1. Improve people's active participation in health and healthcare.
2. Expand primary care and behavioral health integration.
3. Improve Connections between Clinic and Community/Social Resources for People.
4. Reduce disparities linked to poor health and healthcare outcomes.

Best practices in these strategic focus areas are detailed in Section VI. Those that could reduce obesity include workplace wellness initiatives and patient activation measures. Interventions most applicable to diabetes include the National Diabetes Prevention Program, group visits, and chronic disease self-management programs. Interventions with potential to reduce tobacco use include screening and referral and technology-enabled consumer health tools. Interventions involving systemic change to health care delivery include connecting clinic and community care, coordinating clinical care, integrating behavioral health and primary care. Finally many interventions address the social determinants of health and disparities. These include screening and referral, connecting clinic and community care, and all interventions in the disparities strategic focus area: data collection and dissemination; health literacy interventions; culturally adapted healthcare; cultural competence training; community backbone organizations; community paramedic programs; and telehealth.

Implementation considerations are explored in Section VII. These include plans for payment models, health information technology, and measures to monitor progress on the four strategic focus areas. SHIP would accelerate improvements in these enabling factors while facilitating and assisting communities and clinics implementing SHIP interventions. The monitoring and evaluation and operational and sustainability plans may be found in Sections IX and X.

Through implementation, the SHIP interventions would improve health and healthcare across the state, addressing many pressing issues beyond those of people with diabetes and hypertension or depression. Through future population selection, Wisconsin's other pressing issues could be targeted more specifically. Many initiatives currently underway already target obesity, physical activity, and nutrition, for example, and collaboration is burgeoning in this area. Application of SHIP processes could further collaboration and impact across clinical and community settings. Alcohol and binge drinking, an area of great concern in Wisconsin, could also be selected, or any other highly problematic health

behavior. The leading causes of morbidity and hospitalizations, for the most part, could be impacted by improvements in health behaviors and changes in the health and health care systems. Heart disease, cancer, and stroke would be affected by physical activity, nutrition, tobacco use and systemic changes to community and clinic. Suicide could be reduced through interventions to improve mental health, and unintentional injury through those to reduce impaired driving. Maternal child health, respiratory disease, and homicide could also be addressed through SHIP approach. Were these conditions selected, the interventions chosen would likely more specifically target patients at risk for them across the disease spectrum – from prevention to management – and amplify the effect of interventions already underway to facilitate systemic and environmental change.

Both the WI-HIPP process described above and the SHIP call for organizational alignment will advance the objectives of the Plan for Population Health Improvement and the overall SHIP.

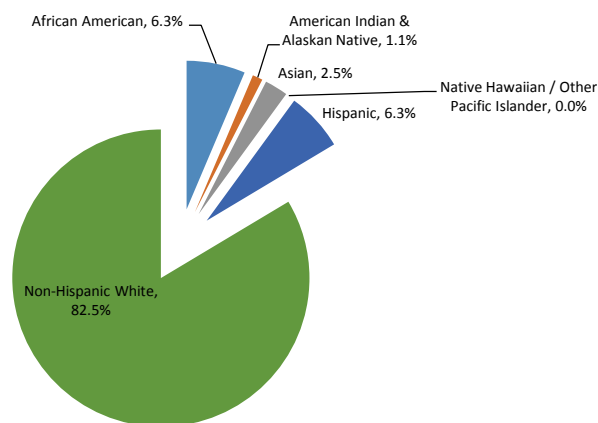
## V. Description of State Healthcare Environment

### 1. POPULATION PROFILE

In 2013, Wisconsin had a population of 5,742,713. While the population demographics largely mirror the national averages—and are very similar to its western neighbor states Iowa and Minnesota—there are several areas in which Wisconsin is different.

#### 1.1 Race and Ethnicity

Wisconsin's population includes a relatively high percentage of rural residents (29.8% Wisconsin versus 19.3% nationally). Wisconsin also has fewer minorities than the national average, and the racial and ethnic diversity of Wisconsin's residents closely resembles that of its neighbors, Illinois, Iowa and Minnesota.



**Figure V.1: Race in Wisconsin.**

In some counties throughout the state, minorities have a significant presence. In Menominee County, for example—a rural county in the north—84.5 percent of the population is American Indian or Alaskan Native (state average is 1.1%). In urban Milwaukee County, African Americans comprise 26.2 percent of the population, and Hispanics another 14 percent (state average is 6.3% for either group).

#### 1.2 Age

Over the last decade, the only age groups to see population growth rather than loss were those between 45-64 (+1%) and over 65 (+9%). In several rural counties throughout the northern part of the state, more than one-quarter of residents are over the age of 65; these counties also have some of the lowest populations of residents under the age of 18 (often less than 20%).



## 2. ACCESS TO HEALTHCARE

### 2.1 Access to Medical Care

DEFINITION: “Access to care is the attainment of timely and appropriate healthcare by patients or enrollees of a healthcare organization or clinician” ... “Access measures are supported by evidence that an association exists between the measure and the outcomes of our satisfaction with care.” – AHRQ ‘Domains of Measurement, NQMC’

- 3 discrete steps to attaining access – 1) gaining entry into the healthcare system; 2) getting access to sites of care where patients can receive needed services; and 3) finding providers who meet the needs of individual patients and with whom patients can develop a relationship based on mutual communication and trust
- Measures of access – 1) structural measures of the presence or absence of specific resources that facilitate healthcare (having health insurance or usual source of care); 2) assessments by patients of how easily they can gain access to healthcare; 3) utilization measures of the ultimate outcome of good access to care (successful receipt of needed services)

Access to healthcare often is defined in relation to the healthcare workforce. A foundational measure is the ratio of primary care physicians to the population. In Wisconsin, the average ratio is 1,215 residents to every one primary care physician. In Marquette County in the north, there is only one primary care physician for every 15,439 residents. Conversely, in Wood County—which is home to the Marshfield Clinic—the ratio is one physician for every 535 residents.

Wisconsin’s average is very similar to those of its Midwestern neighbors, which range from 1,246 in Minnesota to 1,518 in Indiana. However, an extreme shortage in Wisconsin’s Marathon County is the worst among all neighboring states by more than 1,000:1<sup>14</sup>.

Another measure of access is the degree to which cost prevents individuals from seeking care; the Behavioral Risk Factor Surveillance System (BRFSS) collects data that identifies the percentage of adults who could not see a doctor in the past twelve months because of costs. An average of 10 percent of adults in Wisconsin reported cost as a barrier to accessing a physician. Up to 18 percent of residents in the northern county of Florence could not see a doctor because of costs; also in the northern part of the state, Iron County reported the fewest number of residents, 5 percent, who cited cost as a barrier to accessing a physician. Wisconsin’s neighboring states fared similarly – Iowa averaged 8 percent, Minnesota 9 percent, Illinois 12 percent, Michigan 13 percent, and Indiana 14 percent<sup>15</sup>.

The rate at which primary care physicians accept new Medicaid patients can provide further information on access to care in the state. Wisconsin ranks among the best, with fewer than 20 percent of primary care physicians not accepting new Medicaid patients. Minnesota is the leader at only 9 percent<sup>16</sup>.

## 2.2 Access to Mental Healthcare

Nearly one-third of the country lives in a county designated as a Mental Health Professional Shortage Area. The access to mental healthcare often is calculated as the ratio of the population to the number of mental health providers – psychiatrists, psychologists, licensed clinical social workers, counselors, marriage and family therapists, and advanced practice nurses specializing in mental health. The average ratio in Wisconsin is 623 residents to every one mental health provider.

Buffalo County in the north has only two mental health providers, or a ratio of 6,679 people to each mental health provider. Two other counties have ratios between 3- to 4,000 and five have between 2- to 3,000. Dane, Eau Claire, and Oneida Counties fare the best, with a provider for every 300-400 residents.

Within the Great Lakes region, Wisconsin fares slightly worse than average. Michigan has the best ratio of mental health providers, 487:1, while Iowa has the worst, 904:1<sup>17</sup>.

According to the Health Resources and Services Administration (HRSA):

Health Professional Shortage Areas (HPSAs) are designated by HRSA as having shortages of primary care, dental care, or mental health providers and may be geographic (county or service area), population-based (e.g., low income or Medicaid eligible) or facilities-based (e.g., federally qualified health centers, or state or federal prisons).

Wisconsin has 406 HPSA designations. Wisconsin has 149 unique primary care HPSA and facility designations, 65 of which are facilities. There are 127 unique dental care HPSA and facility designations, again 65 of which are facilities; additionally, there are 130 unique mental health HPSA and facility designations, 69 of which are facilities.

Wisconsin and Minnesota share very similar HPSA profiles. Minnesota has more area designations, while Wisconsin has more facility designations<sup>18</sup>.

## 3. HEALTH AND HEALTHCARE QUALITY

### 3.1 Health

The *America's Health Rankings* report, a collaboration between the United Health Foundation and the American Public Health Association, reports on and analyzes behaviors, community and environment, policy, and clinical care for each state to help describe the nation's health. Over the 25-year history of the report, Wisconsin ranks second among the states with the largest changes in rank decline since the first 1990 edition; Wisconsin was initially ranked 7<sup>th</sup> and in 2014 ranked 23. Iowa was the only state to drop further in rank – from 6 to 24. According to the report, Wisconsin's strengths include relatively low prevalence of diabetes, while its challenges include high prevalence of binge drinking, infectious diseases, and low per capita public health funding<sup>19</sup>.

The Commonwealth Fund report, *Scorecard on State Health System Performance, 2014*, "assesses states on 42 indicators of healthcare access, quality costs, and outcomes over the 2007-2012 period. According to the report, Wisconsin ranked seventh in 2014, up from tenth in 2008. Minnesota ranked

number one, while Vermont, New Hampshire, and Massachusetts tied for second. Wisconsin's regional neighbor, Iowa, ranked tenth, and other Midwestern neighbors Illinois, Indiana and Michigan ranked between 25 and 35. Among Wisconsin's biggest challenges are avoidable hospital costs, oral health access issues, rehabilitation, and premiums<sup>20</sup>.

### 3.2 Healthcare

The Wisconsin Collaborative for Healthcare Quality (WCHQ) has developed several measures. Among these are measures for diabetes care, hypertension, and ischemic vascular disease care<sup>21</sup>.

For diabetes care, WCHQ measures the following:

- A1C blood sugar testing
- A1C blood sugar control
- All or none outcome measure – optimal control
- Daily aspirin or other antiplatelet unless contraindicated
- Blood pressure control
- Tobacco free
- Kidney function monitored
- All or none process measure – optimal testing
- Statin use for patients ages 40-75 or patients with IVD of any age

For hypertension, WCHQ measures “controlling high blood pressure.”

For ischemic vascular disease (IVD), WCHQ measures:

- Statin use
- All or none outcome measure – optimal control
- Daily aspirin or antiplatelet medication usage unless contraindicated
- Blood pressure control
- Tobacco free

Nationally, the measures for diabetes, hypertension, and depression mirror those used by WCHQ.

The National Quality Forum measures for diabetes include:

- HbA1c management (testing)
- Eye examination
- Lipid profile
- Lipid management control (<100 mg/dL)
- HbA1c test for pediatric patients
- Foot examination
- Urine protein screening
- Blood pressure management
- HbA1c management (poor control)

HEDIS measures for diabetes include:

- Comprehensive diabetes care
- Diabetes screening for people with schizophrenia or bipolar disorder who are using antipsychotic medications
- Diabetes monitoring for people with diabetes and schizophrenia
- Relative resource use for people with diabetes
- Statin therapy for patients with diabetes

The single National Quality Forum measure for hypertension is controlling high blood pressure. HEDIS also measures controlling high blood pressure among commercial, Medicaid and Medicare beneficiaries. Additionally, HEDIS assesses the relative resource use for people with hypertension.

The National Quality Forum measures for mental health and substance abuse include:

- Anti-depressant medication management: optimal practitioner contacts for medication management, effective acute phase treatment, effective continuation phase treatment
- Follow-up care for children prescribed attention-deficit/hyperactivity disorder (ADHD) medication: initiation phase, continuation and maintenance phase
- Initiation and engagement of alcohol and other drug dependence treatment: initiation, engagement

HEDIS measures for depression include<sup>22</sup>:

- Antidepressant medication management
- Follow-up care for children prescribed ADHD medication
- Follow-up after hospitalization for mental illness
- Diabetes screening for people with schizophrenia or bipolar disorder who are using antipsychotic medications
- Diabetes monitoring for people with diabetes and schizophrenia
- Mental health utilization
- Utilization of the PHQ-9 to monitor depression symptoms for adolescents and adults

Wisconsin ranks better than average for most hospital admissions-related measures related to diabetes. Wisconsin ranks average for:

- Adults age 40 and over with diagnosed diabetes who had their feet checked for sores or irritation in the calendar year
- Adults age 40 and over with diagnosed diabetes who received at least two hemoglobin A1c measurements in the calendar year
- Adults age 40 and over with diagnosed diabetes who received a flu vaccination in the calendar year
- End stage renal disease (ESRD) due to diabetes per million population

Wisconsin ranks better than average for “people age 12 and over treated for substance abuse who completed treatment course.” However, Wisconsin measures just average for “people age 12 and over who needed treatment for illicit drug use and who received such treatment at a specialty facility in the last 12 months” and “people age 12 and over who needed treatment for alcohol problem who received such treatment at a specialty facility in the last 12 months.” Wisconsin fared worse than average in suicide measures<sup>23</sup>.

### 3.3 Healthcare Coverage (Infrastructure)

Wisconsin has a unique and robust healthcare delivery environment. The state’s healthcare delivery system is characterized by a multitude of national and regional/local insurance carrier options, highlighting maximum consumer choice. In addition, the state has several high quality health systems, which include not only successful accountable care organization (ACO) models and integrated delivery networks, but also over 150 hospitals, nearly 10,000 physicians, 17 Federally Qualified Health Centers, and 12 tribal health centers. The strength of the Wisconsin healthcare systems has led to Wisconsin consistently being one of the top rated states in the country for quality and access – with several of the individual systems and/or hospitals also topping charts for highest quality care.

This diverse environment also extends to the Medicaid program. The state of Wisconsin currently provides Medicaid benefits to approximately 1.1 million Wisconsin residents with an average of 85 percent of the full-benefit Medicaid population served in one of the Medicaid program’s 19 BadgerCare Plus HMOs.

As part of the technical assistance provided by CMMI through NORC at the University of Chicago and the State Health Access Data Assistance Center (SHADAC) the SHIP team received a comprehensive state profile. Included in this profile is a summary of the Wisconsin health insurance markets and coverage. Please see Appendix 7 for more information.

### **Social and Economic Factors**

Wisconsin’s rate of high school graduation, 88 percent, ranks among the highest in the region; more than 45 counties in the state have high school graduation rates exceeding 90 percent. While some states like Michigan and Minnesota have lower averages, 78 percent, their lowest rates are still better than Wisconsin’s Burnett County, which graduates only 55 percent of its students who begin high school. The Milwaukee-Racine-Kenosha region comprises the remaining poor performers, with rates between 75-83 percent<sup>24</sup>.

Approximately 7.3 percent of Wisconsin residents age 16 and older lack basic prose literacy skills. Ozaukee and Waukesha Counties, both in Southeastern Wisconsin, have the lowest rates at 4 and 4.4 percent respectively; Menominee has the highest rate of illiteracy at 10.9 percent. Wisconsin’s neighboring states have similar rates, with Minnesota home to the lowest rates of illiteracy – 6 percent, and Illinois the highest – 13 percent<sup>25</sup>.

The measure of reading proficiency is represented as the percentage of fourth grade students who are proficient or advanced in reading according to the Wisconsin Knowledge and Concept Examination (WKCE) standards. Reading proficiency is an indicator of one's education level, which can directly affect one's health, as well as the health of future generations. Because of the ripple effect education has on other social and psychological factors that in turn impact health status, reading proficiency can be a useful added measure. The average rate of reading proficiency in Wisconsin is 36 percent. Seven counties have rates below 30 percent, all largely in the northern region of the state. Conversely, more than 50 percent (56.7%) of Ozaukee County residents are proficient, or advanced in reading, and seven additional counties have between 45-49.5 percent proficiency rates<sup>26</sup>.

In Wisconsin, 1.6 percent of the population age 5 and over report speaking English less than "well." Milwaukee County has the highest percentage of those not proficient in English, 3.8 percent or 33,058 people. Brown, Dane and Walworth counties have between 2.1-2.2 percent. Regionally, Wisconsin has among the lowest percentages of the population not proficient in English; Indiana, Iowa and Michigan have similar averages, although Iowa's worst county is 11.5 percent, while more than 4 percent of Minnesota and Illinois' populations are not proficient in English<sup>27</sup>.

In Wisconsin, an average of 18 percent of children under age 18 live in poverty. Ozaukee and Waukesha counties, both in Southeastern Wisconsin, have the lowest rates of poverty at 6 percent; Menominee County has a rate of 59 percent and Milwaukee County 33 percent. Minnesota fares slightly better, with an average of 14 percent of its children under 18 living in poverty; Iowa averages 16 percent, Illinois 21 percent, Indiana 22 percent, and 24 percent in Michigan<sup>28</sup>.

## **Physical Environment**

### Air Quality

Wisconsin's air quality, as measured by average daily particulate matter (PM2.5), is among the better nationally (11.5 PM2.5 statewide). The lowest levels of PM2.5 (approximately 10.5-11) are found along the northern, more rural counties neighboring Michigan's Upper Peninsula. The highest levels (approximately 12-12.6) can be found in the Milwaukee-Racine-Kenosha metro regions. Regionally, Wisconsin's air quality is on par with its neighbors - tied with Michigan (11.5), slightly worse than Iowa (10.9), while better than Minnesota (12), and Illinois (12.5)<sup>29</sup>.

### Water Quality

Drinking water violations in Wisconsin, as measured by the percentage of the population (5%) potentially exposed to water exceeding a violation limit during the past year (FY2013-2014), exceeded the national average (0%). This is largely attributed to a handful of counties – some suburban Milwaukee while others more rural – where 25-47 percent of the population was potentially exposed. Regionally, Illinois (2%), Michigan (1%), and Minnesota (2%) exposed fewer people on average, while Iowa exposed a slightly greater percentage (7%)<sup>30</sup>.

### Housing

Housing in Wisconsin presents the greatest challenge to the urban population in Milwaukee, while also an issue in some of the more rural regions in the northern part of the state. The average percentage of households facing severe problems in Wisconsin is 15 percent. In Milwaukee, some 22 percent of households (83,255) experience at least one of four housing problems: overcrowding, high housing costs, lack of kitchen, or lack of plumbing facilities. In neighboring states, the average ranges from 12 percent in Iowa to 19 percent in Illinois; Iowa is also home to the county with the lowest number of problems (5%), while Illinois and Michigan have the counties with the highest (24%)<sup>31</sup>.

Throughout Wisconsin, approximately 27 percent of housing structures were built before 1950. Two of the counties in the northern more rural region of the state, Menominee and Adams, have just 6 and 8 percent of homes built before 1950. Lafayette County has the greatest percentage of older structures (45%), but it is the most populated county, Milwaukee, that has the greatest share of older structures in the state (42%, or 173,646 structures)<sup>32</sup>.

### Transit

A significant majority of Wisconsin workers (80%) commute alone, with little variation between the counties with the fewest single drivers (73%) to the most (86%) – largely the counties surrounding Milwaukee. Wisconsin ranks worse than Illinois (74%) and Minnesota (78%), is tied with Iowa (80%), and is ahead of Michigan (83%); still every neighboring state has both counties with lower and higher rates than Wisconsin (63% in Illinois and up to 87% in Illinois and Michigan).

Because Wisconsin has so many single drivers, it is also important to note long commutes in a car alone, which can be linked to higher blood pressure and body mass index, as well as less physical activity. A greater number of Wisconsin drivers (26%) spend significant time in their car commuting than the national average (15%). The worst counties in the state are largely those bordering Minnesota, with 43-46 percent of workers commuting more than 30 minutes alone in their cars. In some of the smaller urban regions, such as Eau Claire, La Crosse and Green Bay, only 12-15 percent of workers have long commutes.

Unlike Wisconsin, all of its neighboring states have at least some counties where a majority of workers have long commutes. Similarly, most of the region in Illinois, approximately 40 percent of workers have long commutes, 29 percent in Minnesota, while the average in Iowa (19%) is slightly better than Wisconsin<sup>33</sup>.

## VI. Health Systems Design and Performance Objectives

### 1. TRANSFORMING HEALTH AND HEALTHCARE

In order to meet the goals of the SIM program and the SVC, Wisconsin's SHIP proposes to transform health and healthcare, the "system," by using the health and healthcare transformation model described in Section II as applied to the SHIP transformation goals and strategic focus areas.

#### SHIP Transformation Goals

1. Optimize health and interrupt disease progression
2. Make smarter investments to promote health and healthcare value

#### SHIP Transformation Strategic Focus Areas in support of the transformation goals are:

1. Improve people's active participation in health and healthcare
2. Expand primary care and behavioral health integration
3. Improve Connections between Clinic and Community/Social Resources for People
4. Reduce disparities linked to poor health and healthcare outcomes

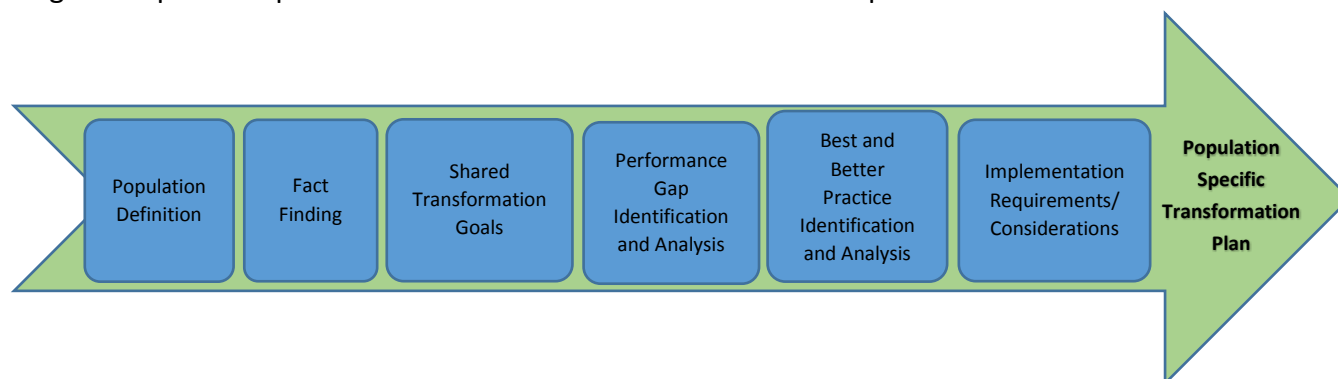
The SHIP driver diagram demonstrates how the SHIP transformation goals, strategies, and measurement will directly support the aims for improved health, healthcare, and cost/spending, including alignment with other national efforts.

Transformation Area	IHI	WI SVC	SIM	US DHHS	SHIP Transformation Goals	Goal Measurement	Strategies	Strategy Measurement
Health	Improve the health of populations	Improve population health in WI as measured by...	Improve population health	Healthier people	Optimize health and interrupt disease progression.	Prevalence and Incidence Measures	Improve people's active participation in health and healthcare	Patient Activation Measure (PAM)
						Health Behavior (Outcomes)	Expand primary care and behavioral health integration	Agency for Healthcare Quality and Research Framework and Intermountain Healthcare Mental Health Integration
						Social Determinant (Outcomes)	Improve Connections between Clinic and Community/Social Resources for People	<ul style="list-style-type: none"> <li>• How many counties have a current inventory of social health resources?</li> <li>• How many counties have a current inventory that is publicly accessible?</li> <li>• How many organizations and hits have actively used the inventory in the last 12 months?</li> <li>• How many counties have resources that match their targeted disease needs?</li> <li>• What is the volume of use (utilization) for the targeted resources listed in the inventory?</li> </ul>
Healthcare	Improve the patient experience of care	All Wisconsin providers reach national 75th percentile on SVC core measures	Transform health care payment and delivery systems	Better care		Complication Rate Measures	Reduce disparities linked to poor health and healthcare outcomes	Segment goal measures by age, payer, race, income level, educational level, gender, and sexual orientation.
						Screening and Follow-Up Measures		
						Optimal Testing and Control Measures		
Cost	Reduce the per capita cost of healthcare	Achieve 0% trend PMPY in 2018 as compared to 2013	Decrease total per capita health care spending	Smarter spending	Make smarter investments to promote health and healthcare value	Total Cost of Care (TCOC)	TBD	TBD
						Total Resource Use (TRU)		
						Admissions and readmissions for ambulatory sensitive conditions		

Figure VI.1: SHIP Driver Diagram.



As outlined in Section II, the SHIP was developed using a planning framework that aims to create health and healthcare transformation roadmaps in Wisconsin through collective impact.<sup>34</sup> The following diagram depicts the phases of the SHIP Transformation Workflow process:



**Figure VI.2: SHIP Transformation Workflow Process.**

The SHIP Transformation Workflow consists of six transformation steps: Population Definition, Fact Finding, Shared Transformation Goals, Gap Identification and Analysis, Best and Better Practice Identification and Analysis, and Implementation Requirements/ Considerations. Each of the transformation steps was completed by the three SHIP Transformation Team Workgroups (Behavioral Health, Care Redesign and Population Health) and was informed by consultation with members of the Advisory Panels to the Transformation Workgroups.

## 2. POPULATION DEFINITION

The first step in the SHIP transformation workflow is to define the population. For design purposes and in order to test the planning framework, the SHIP Project Team worked with data and quality organizations to identify populations that were meaningful in regards to opportunities for health and healthcare improvement, but small enough to allow for the workgroups to complete the initial pass through the transformation workflow. The SHIP Project Team identified the following two populations:

- People diagnosed with diabetes mellitus (diabetes)<sup>35</sup> and hypertension<sup>36</sup> including men and women, ages 18-64, statewide (does not include gestational diabetes; includes both Type I<sup>37</sup> and Type II<sup>38</sup> diabetes); and
- People diagnosed with depression<sup>39</sup> and diabetes including men and women, ages 18-64, statewide (does not include postpartum depression; includes both Type I and Type II diabetes).

Additionally, during the course of the project the SHIP Project Team engaged a subset of workgroup and advisory panel members to define criteria to be used for selecting subsequent populations.

Following is the criteria identified:

- Is relevant to both the public and private sector
- Size/scope of the population is significant enough matter
- The issues (health, healthcare and cost) related to the problem we are trying to solve:
  - Span the health and healthcare continuum

- Will require multiple stakeholder collaboration
- There is sufficient data/evidence about the population that is available and understandable
- Stakeholders already have the target population in their line of sight (strategies in motion, dedicated resources, goals and measures)
- Expect to make significant, measurable progress in 3-5 years
- Stakeholders are prepared/ready to address population/problems

As the SHIP is advanced the criteria will be used to establish statewide priorities for local/community activation.

### **3. FACT FINDING**

The purpose of the SHIP Fact Finding phase was to provide a comprehensive picture of the current state of the Wisconsin SHIP selected populations. Transformation Team Workgroup members were brought together to compile a comprehensive list of fact finding questions that required data in order for SHIP team members to develop shared transformation goals.

SHIP staff filtered the fact finding questions and sent data requests to five entities providing in-kind analysis: The Survey of the Health of Wisconsin (SHOW), Wisconsin Collaborative for Healthcare Quality (WCHQ), Wisconsin Department of Public Health (DPH), Wisconsin Health Information Organization (WHIO), and The Wisconsin Hospital Association Information Center (WHAIC). Multiple data sources were used to ensure the most comprehensive, recently-available look at the current state of the selected populations.

Data collected from each of the sources were critically examined by SHIP analysts. The data was then compiled into a Data Briefing Summary (DBS), see Appendix 6. The intent of the Data Briefing Summary was to provide a completed document to display and disseminate State data to the SHIP team members for purposes of extracting Key Findings. The Key Findings were those facts that were deemed most salient, remarkable, and worthy of further study throughout the planning process.

SHIP Transformation Team Workgroup members combed through the Data Briefing Summary and identified Key Findings. The following are themes pulled from the key findings:

- A comprehensive singular source of data on health status and healthcare outcomes in Wisconsin does not exist.
- Although the majority of people in the selected populations report insurance coverage, they rate their health as fair/poor, statistically significantly more than the Wisconsin population.
- High utilization of emergency rooms by the selected populations exists, even though most report a usual source of care, and that usual source of care was reported to be a clinic or doctor's office.
- People with depression and diabetes report frequent mental distress, as well as increased levels of moderate and severe distress, when compared to the general Wisconsin population.
- Disparities in access, overutilization, and social determinants of health exist, as well as disparities in health status, healthcare access, and outcomes by sub-populations, including gender, race, income, access and education level.

- Patients in the selected populations reported low levels of healthy behaviors, which may lead to adverse events and increased chances of developing additional comorbidities.
- Additional co-morbid conditions, beyond those that are the immediate focus of the SHIP, significantly drive the cost of care.

Upon the identification of Key Findings for SHIP selected populations a Key Findings Report (KFR) was created. The SHIP Key Findings Report includes extracted Key Findings, supporting data, and data methods and limitations, see Appendix 5.

### Selected Key Findings

*Behavioral Risk Factor Surveillance System (BRFSS) data indicate over 80 percent of people in the selected populations stated they have insurance coverage.*

Self-Reported Access to Insurance			
Population (age 18-64)	Diabetes and Hypertension	WI Population	Depression and Diabetes
Total	138,000	3,560,000	67,000
Insurance coverage (yes)	114,000 (83%)	3,019,000 (85%)	56,000 (87%)



**Figure VI.3: BRFSS Self-Reported Access to Insurance Data.**

*According to BRFSS data, people in the selected populations are about four times more likely than other Wisconsinites to rate their health as fair or poor.*

Demographic and Health Indicators for Hypertension, Diabetes and Depression			
Population	Diabetes and Hypertension	WI Population	Depression and Diabetes
Total	138,000	3,560,000	67,000
Fair/poor health:	62,000 (44%)	459,000 (13%)	37,000 (55%)



**Figure VI.4: BRFSS Demographic and Health Indicators for Hypertension, Diabetes and Depression Data.**

High utilization of emergency rooms by the selected populations exists, even though most report a usual source of care, and that usual source of care was reported to be a clinic or doctor's office.

The selected populations use the emergency room (ER) three to four times more frequently than other Wisconsinites. Diabetes is the primary condition for which patients in the selected populations use the ER.

Emergency Room Utilization per 1,000 population			
	Population n	# of Encounters	Encounters per 1,000 Population
<b>Statewide - all</b>			
Current (10/13 - 9/14) Total	1,943,666	570,447	355
Prior (10/12 - 9/13) Total	1,811,889	548,344	350
<b>Diabetes &amp; Hypertension</b>			
Current (10/13 - 9/14) Total	37,572	41,765	1,204
Diabetes-related ER		9,651	278
Hypertension-related ER		1,149	33
Prior (10/12 - 9/13) Total	35,886	40,814	1,186
Diabetes-related ER		9,906	288
Hypertension-related ER		1,167	34
<b>Diabetes &amp; Depression</b>			
Current (10/13 - 9/14)	20,329	28,147	1,500
Diabetes-related ER		6,050	322
Depression-related ER		2,593	138
Prior (10/12 - 9/13)	18,630	27,152	1,515
Diabetes-related ER		6,084	339
Depression-related ER		2,257	126



Figure VI.5: WHIO Emergency Room Utilization per 1,000 population Data.

Patients in the selected populations are treated and released from the ER considerably less than the general Wisconsin population, and they are admitted to inpatient stays from the ER at rates that are more than double the general population.

Percentage of ER Visits and Treatment Type per Population (any chief complaint) Men and Women Age 18-64			
ER Treatment Type	Diabetes and Hypertension	WI Population	Depression and Diabetes
ER- Treated and Released	68.8%	81.9%	68.1%
ER-To Inpatient	24.0%	12.9%	26.0%
ER-To Observation	6.7%	4.3%	5.6%
ER-To Outpatient Surgery	0.5%	0.90%	0.40%



WHAIC ER Visits and Treatment Type Data.

People in the SHIP selected populations are also more than twice as likely to be readmitted to the hospital.

Hospital Encounters			
Measure	Diabetes and Hypertension	WHA WI Population	Depression and Diabetes
Average length of stay in days for patients admitted to the hospital (days)	5.0	4.5	5.1
Average length of stay for patients admitted to with a chief complaint of the diagnosis (days)	4.2	N/A	4.9
Average length of stay for patients admitted to the hospital with a chief complaint of suicide ideation and/or attempted suicide (days)	5.4	4.8	4.8
Total Number of ER Visits that lead to Inpatient	15,534	503,641	10,323
Total Number of ER Visits for the Condition that lead to Inpatient	3,435		2,965
Readmission Rate - All Causes	21.8%	9.7%	30.2%
Readmission Rate- Admitted and readmitted for the condition	7.9%		12.1%



**Figure VI.7: WHAIC Hospital Encounters Data.**

People with depression and diabetes report frequent mental distress, as well as increased levels of moderate and severe distress, when compared to the general Wisconsin population.

BRFSS data indicate about 11 percent of Wisconsin's general population stated they experience frequent mental distress, while roughly 40 percent of those with depression and diabetes responded they experience frequent mental distress.

Demographic and Health Indicators for Hypertension, Diabetes and Depression			
Population	Diabetes and Hypertension	WI Population	Depression and Diabetes
Total	138,000	3,560,000	67,000
Frequent mental distress	25,000 (18%)	398,000 (11%)	26,000 (40%)

**Figure VI.8: BRFSS Demographic and Health Indicators Data.**

Disparities in access, overutilization, and social determinants of health exist, as well as disparities in health status, healthcare access, and outcomes by sub-populations, including gender, race, income, access and education level.

*Depression with diabetes is more prevalent among women than men.*

Gender Prevalence			
Population	Diabetes and Hypertension	WI Population	Depression and Diabetes
Total	138,000	3,560,000	67,000
Male	65,000 (47%)	1,800,000 (51%)	27,000 (40%)
Female	73,000 (53%)	1,760,000 (49%)	40,000 (60%)



**Figure VI.9: BRFSS Gender Prevalence Data.**

When assessing prevalence of people with diabetes and hypertension and depression and diabetes by race, WHA data indicate the highest proportional prevalence among Blacks/African Americans.

Race Prevalence			
Race (age 18-64)	Diabetes and Hypertension	WI Population	Depression and Diabetes
White	75.4%	84.0%	78.6%
Black/African American	19.8%	8.4%	16.6%
American Indian or Alaskan Native	1.3%	0.9%	1.8%
Multiracial	1.2%	1.6%	1.1%
Declined	0.8%	1.8%	0.8%
Asian	1.0%	1.6%	0.8%
Unavailable	0.4%	1.2%	0.3%



**Figure VI.10: WHAIC Race Prevalence Data.**

*SHIP populations have lower levels of educational attainment than the population overall.*

Self-Reported Education Levels			
Population (age 18-64)	Diabetes and Hypertension	WI Population	Depression and Diabetes
HS or Less	69,000 (51%)	1,500,000 (41%)	36,000 (54%)
Some College/Tech	51,000 (37%)	1,200,000 (34%)	23,000(35%)
College Degree or more	16,000 (12%)	900,000 (25%)	7,000 (11%)



**Figure VI.11: BRFSS Self-Reported Education Levels Data.**

People in the selected populations are more likely than Wisconsinites overall to be unemployed or have low incomes.

Self-reported Employment Status/ Income			
Population	Diabetes and Hypertension	WI Population	Depression and Diabetes
Total	138,000	3,560,000	67,000
Employed (Yes)	64,000 (47%)	2,525,000 (71%)	21,000 (32%)
Income groups*			
<\$25,000	49,000 (40%)	811,000 (26%)	34,000 (57%)
\$25-49,999	34,000 (28%)	860,000 (27%)	15,000 (26%)
\$50,000+	39,000 (31%)	1,511,000 (47%)	11,000 (18%)



**Figure VI.12: BRFSS Self-Reported Employment Status/Income Data.**

Patients in the selected populations reported low levels of healthy behaviors, which may lead to adverse events and increased chances of developing additional comorbidities.

According to BRFSS data, obesity rates for the selected populations are more than twice the rate for Wisconsin's general population. Additionally, smoking is more prevalent among people with depression and diabetes as compared to the general population. However, according to self-reported data, people in the selected populations drink less alcohol than Wisconsinites overall.

Self-Reported Health Behaviors			
Population	Diabetes and Hypertension	WI Population	Depression and Diabetes
Total	138,000	3,560,000	67,000
Current smoking	27,000 (20%)	790,000 (23%)	23,000 (37%)
Any alcohol past month	56,000 (44%)	2, 247,000 (68%)	24,000 (38%)
Binge drinking past month	12,000 (9%)	920,000 (28%)	5,000 (9%)
Obesity	85,000 (67%)	967,000 (29%)	42,000 (68%)



**Figure VI.13: BRFSS Self-Reported Health Behaviors Data.**



BRFSS data indicate that people in the selected populations are less active than Wisconsinites overall.

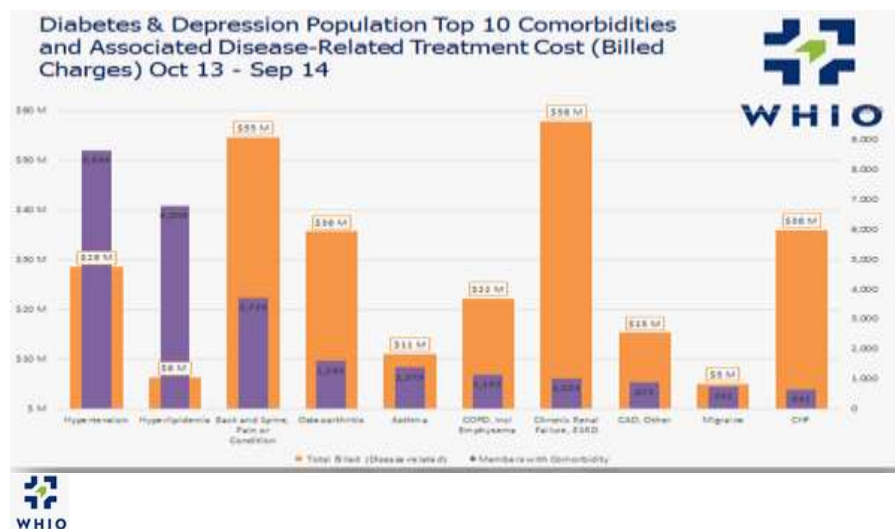
Number and Percent Estimates of Population (18-64) who had any Physical Activity other than Job in the Past 30 Days			
Population	Diabetes and Hypertension	WI Population 18-64	Depression and Diabetes
All	80,000 (62%)	2,655,000 (80%)	37,000 (59%)
Males	42,000 (68%)	1,333,000 (79%)	15,000 (61%)
Females	38,000 (57%)	1,322,000 (81%)	22,000 (57%)



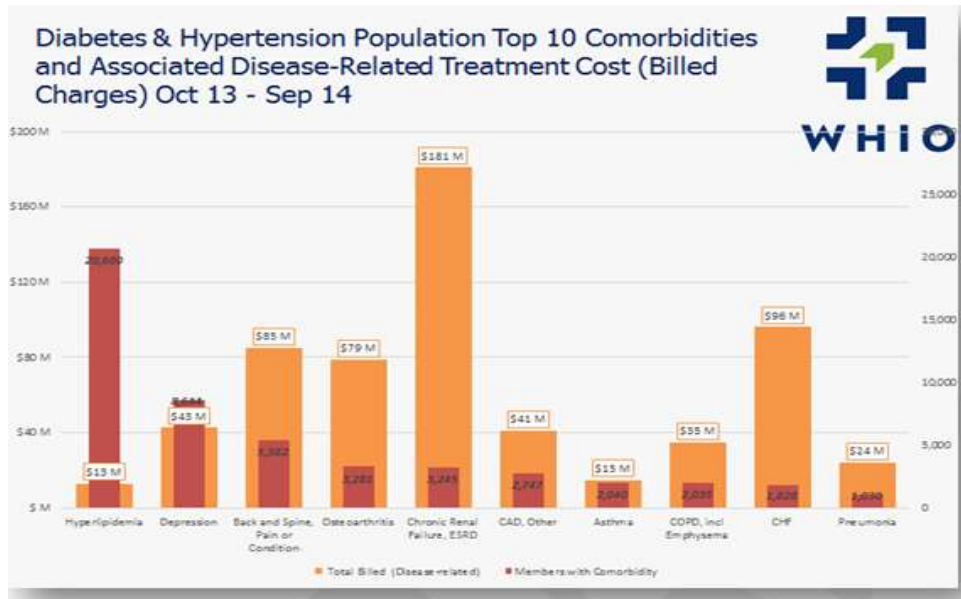
**Figure VI.14: BRFSS Percent Estimates of Population with Physical Activity Data.**

Additional co-morbid conditions, beyond those that are the immediate focus of the SHIP, significantly drive the cost of care.

WHIO data indicates chronic renal failure/end stage renal disease (ESRD) is the most costly comorbidity for the selected populations. Congestive heart failure (CHF) and musculoskeletal conditions are also major cost drivers.



**Figure VI.15: WHIO Diabetes and Depression Population Top 10 Comorbidities Data.**



**Figure VI.16: WHIO Diabetes and Hypertension Top 10 Comorbidities Data.**

#### 4. GOALS

The Key Findings Report was presented to SHIP workgroup members for the purpose of developing Shared Transformation Goals. Workgroup members created an exhaustive list of goals necessary to achieve an optimal health and healthcare environment in the State of Wisconsin. Goals were consolidated by workgroup members and SHIP staff, and resulted in the creation of six initial working goals:

- Optimize care delivery
- Reduce disparities linked to poor health and healthcare
- Engage in smarter spending for people, providers and purchasers
- Interrupt disease progression across the health and healthcare continuum
- Improve people's active participation in their health and healthcare
- Connect people to community and social resources.

Upon workgroup approval of the initial working goals, the transformation teams moved on to gap identification and analysis. Following the identification and analysis of gaps, it was clear some of the goals were strategies and thus, two goals were created:

1. *Optimize health and interrupt disease progression.*
2. *Make smarter investments to promote health and healthcare value.*

SHIP strategies for achieving the two goals are:

- Improve people's active participation in health and healthcare
- Expand primary care and behavioral health integration
- Connect people to community and social resources
- Reduce disparities linked to poor health and healthcare outcomes.

The SHIP goals and strategies align with the focus areas of Centers for Medicare & Medicaid Services (CMS); Incentives, Care Delivery, and Information goals for CMMI SIM plans to;

1. Improve population health,
2. Transform healthcare delivery and payment,
3. Reduces per capita healthcare expenditures.

The SHIP goals also align with the triple aim of the Wisconsin SVC to improve health outcomes, improve the patient experience, and reduce healthcare cost growth. Collectively we will improve patient participation and experience, make smarter investments and incentives, and improve collaboration and communication between patients, providers, and community organizations to optimize health.

## 5. GAP IDENTIFICATION AND ANALYSIS

Once goals were created, the next step in the transformation process was to identify any gaps in achieving the goals and their root causes. Workgroup members came up with an extensive list of gaps and potential root causes. The gaps and root causes were voted on for the purposes of prioritizing by both the workgroup members, as well as SHIP transformation team advisory panel members.

Many themes emerged in the identification of gaps/root causes:

- **Our culture (beliefs, norms, traditions and community environments make unhealthy choices easier than healthy ones)**
  - Unhealthy food and beverage options are mass marketed
  - Public and private sector policies do not consistently promote health
  - Consumer demand for healthy choices is low
- **We respond to disease rather than developing a proactive approach to optimizing health**
  - Participants in the healthcare delivery system (providers, payers, purchasers) are primarily focused on treating disease and acute issues rather than preventing disease and optimizing health.
  - Mental healthcare is underfunded leading to provider shortage and access issues.
  - Communities lack sustainable, adequate resources to support health promotion and disease prevention
- **Variation in patient understanding and activation leads to variation in patient engagement in healthy behaviors**
  - Patients lack expertise, awareness, access, self-efficacy

- People are dealing with other life stressors. Health and healthcare participation are not first on the list
- We expect healthcare will “fix” what is wrong
- **Historically, the healthcare system does not encourage active patient participation or provide holistic care responsive to patient needs**
  - Many providers report a lack of awareness of patient activation strategies; even more lack the time to pursue them
  - The healthcare payment system does not create shared accountability for providers, payers, purchasers, and patients for maintaining/ improving the health of individuals and communities
  - There are many payer and purchaser policy barriers to covering nontraditional care team members such as health coaches
  - Purchasers have expressed reluctance to pay “extra” for care coordination, consultations, and other supports that “should already be happening”
- **There are few incentives to provide team-based and/or coordinated care**
  - Payment typically does not support the work involved in care coordination
  - Healthcare reimbursement and compensation are still largely production based -
  - The connections between care coordination and team-based care and improved productivity are not well understood
- **Mental and physical healthcare are siloed**
  - Limited communication and collaboration among primary and behavioral healthcare professionals limits interdisciplinary approaches on behalf of patients
  - There is a significant mental health workforce shortage, including but not limited to psychiatrists
- **Community services and resources are underinvested in and are funded in fragmented, short term ways**
  - Community based supports for affordable housing, employment, transportation, etc. do not typically attract large capital investments because they do not include large potential profit margins
  - Funders and investors pursue isolated impact model of investing in individual organizations and programs in silos
  - In many communities there are too many organizations chasing too few resources
- **Home, community and workplace conditions contribute to poor health (access to healthy and affordable food, physical activity, insurance coverage, education level) and are not well-addressed by current clinical strategies**
  - Historically, communication between health providers and community services has been weak
  - Healthcare and social service organizations are often disconnected and siloed
  - Patients are not typically referred to community resources to address needs beyond immediate physical or mental healthcare

- **Many organizations have a poor understanding of current health and healthcare disparities and of strategies to achieve equity in health status and healthcare outcomes**
  - Care delivery models do not sufficiently address known disparities
  - Lack of diversity in the healthcare workforce can create distrust between patients and providers

## 6. BEST AND BETTER PRACTICE IDENTIFICATION AND ANALYSIS

Over several meetings, the workgroup members identified best practices and better practices to help address the identified gaps. Best practices were defined as, occurring *within a stakeholder group* such as a healthcare system. While better practices were defined as, promoting alignment, synergy, and collective impact *among multiple stakeholder groups* such as healthcare systems and community-based organizations. Better practices were considered as transforming the impact of best practices across the health and healthcare continuum, breaking down silos of isolated effort, and creating alignment among mutually reinforcing activities.

Each of the four strategic focus areas were examined based on the current state and challenges that need to be addressed through the SHIP. The detailed results are listed below.

### 6.1 Improve people's active participation in their health and healthcare

To support the SHIP's goals going forward, the workgroups recommend improving people's active participation in health and healthcare. Active participation comes from people's knowledge about healthy choices, motivation to pursue health, belief that they can affect their health and their care, and ability to overcome participation obstacles. Over their lifetimes, people are the first and primary means of optimizing health and interrupting disease progression. The choices people make can prevent disease from happening, slow or halt disease progression, mitigate symptoms and minimize co-morbidities. Should they develop health problems, patients are responsible for pursuing and choosing care, acting on clinician advice, and often for self-management of their conditions. Patient activation is closely linked to clinical outcomes, the costs of healthcare and patients' ratings of their experience; both for healthy patients, and for a variety of medical conditions including diabetes, hypertension, and mental health disorders.<sup>40</sup> Investing in strategies to increase people's activation and engagement, then, could lead to choices that result in improved health, increased healthcare value, and reduction in unnecessary healthcare expenditures. The identified practices to support patients/people based on their individual needs include seven interventions:

- National Diabetes Prevention Program
- Workplace wellness initiatives
- Patient Activation Measures with targeted interventions
- Group visits
- Coordinate clinical care
- Chronic disease self-management programs
- Technology-enabled consumer tools

## 6.2 Improve connections for people between clinic and community/social resources

Connection to community and social resources outside or beyond the healthcare visit is critical to the SHIP's goals. Community resources can meet needs, including basic needs such as food and housing, health needs such as education and transportation to appointments, and social needs. Socially isolated people are at greater risk for poor health outcomes.<sup>41</sup> Connecting people to community and social resources through organizational processes and information systems, then, could help people meet their health, healthcare, and life needs. People whose needs are met are better equipped to engage in healthy behaviors and preventive care, to manage their treatment and self-care more effectively, and to prevent avoidable emergencies and poor health outcomes. Low-cost measures to meet needs could also avert higher cost care expenditures. Unmet needs and the stresses of poverty can make participation in one's own healthcare and improved health behaviors challenging, leading to poor health outcomes. Therefore, the workgroups felt that using the touch point of healthcare visits to connect people to appropriate community and social resources was vital to addressing their needs across the social determinants of health. Additionally, linking and coordinating care electronically between providers will add an additional layer of coordination and connectivity enabling providers to produce better outcomes for patients.

The identified practices for creating linkages between clinical and community settings include:

- Expanding screening and referral through any health or social service entry point
- Linking and coordinating clinical settings and community resources

## 6.3 Expand primary care and behavioral health integration

The workgroups found integration and coordination between primary care services and behavioral health services to be inadequate. There is limited infrastructure (e.g., staff and information systems) to support integration; this results in lack of shared communication and time to coordinate care. Additionally, behavioral health and primary care providers are typically not trained to coordinate and collaborate with one another. Historically providers have not operated in integrated settings resulting in a lack of standardized training for integrated healthcare. Last, there is a serious shortage of mental health professionals, including but not limited to psychiatrists, in the state of Wisconsin.

The identified practices for integrating the delivery of primary care and behavioral health include two priorities.

- Supporting a variety of existing integration models, e.g., behavioral health consultations, co-location to support care coordination, and incorporating behavioral health as a routine part of medical care services within a fully integrated care team.
- Promoting routine and secure exchange of relevant clinical information among primary care and behavioral health providers to support the patient/person/individual and effective management of comorbid conditions.

## 6.4 Reduce disparities linked to poor health and healthcare outcomes

The workgroups recognized people in the selected populations suffer from many different disparities in health status, healthcare access, and healthcare outcomes. To support the SHIP goals, the workgroup recommended all implementation efforts begin with a thorough review of data to understand where disparities in access and outcomes exist. The workgroups further recommended strategies be chosen and implemented to specifically address the most significant disparities, whether by race, geography, gender, socioeconomic status, or other factor.

The identified practices to help increase the knowledge base of existing or current disparities, the causes, and evidence-based interventions include two key priorities.

- Analyze process and outcome performance measures to identify disparities.
- Implement customized interventions shown to effectively address the identified disparities.

## 6.5 Transforming Best Practice to Better Practice

As best practices are considered for implementation, the SHIP workgroups recommend implementation partners ask themselves the following questions to move from “best practice” within organization or sector silos to “better practice.” The goal of this analysis is to ensure implementation harnesses the collective efforts of all relevant people and organizations whose participation is needed to address the identified problem, thereby moving from isolated to sustainable, scalable, collective impact.

Better practice inquiry involves asking the following threshold questions:

1. How can we connect best practices to be consistently better and easier for people/patients to navigate and achieve an optimal experience?
2. Where is there unnecessary redundancy or avoidable waste? How can we collectively act differently to free up those currently wasted resources to invest in new best practices?
3. What best practices will more thoroughly engage the person/patient throughout the health and healthcare continuum?

Best practices are made better by thinking beyond an isolated intervention or program to aspects of system change:

1. Does the practice target the root causes of disease?
2. How could the service be designed with the patient at the center?
3. Are provider, payer, and community goals aligned?
4. Can workforce and duties be shared among organizations?
5. Can community organizations and healthcare systems team up to provide complete and comprehensive care?
6. Is there a plan for community and clinic collaboration to share services, coordinate care, and avoid or reduce duplicative work?

Finally, all recommended best practices must be supported by key enablers to realize their full potential. Implementation partners should address the following enabling considerations:

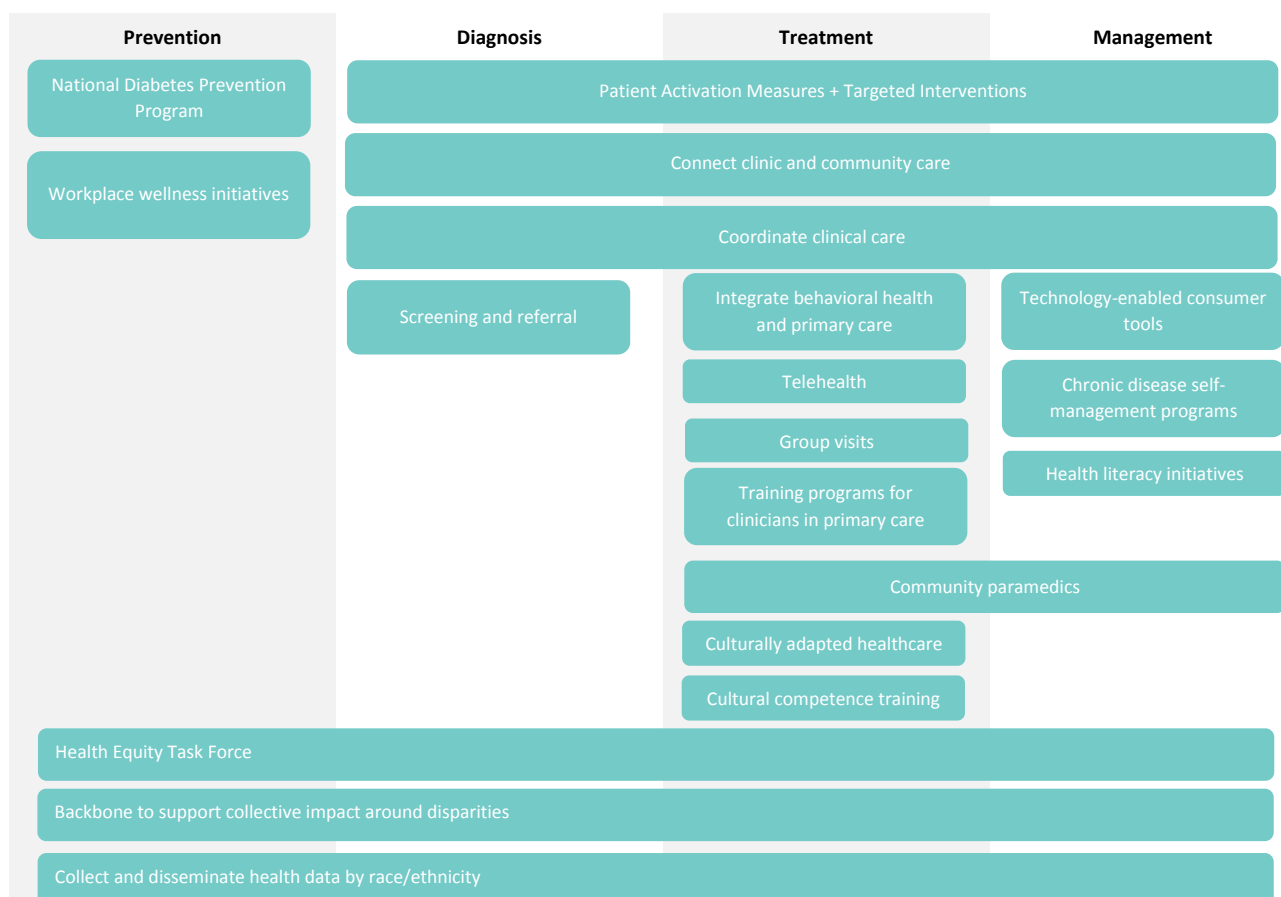
1. Are there regulatory or anti-trust issues that need to be addressed prior to implementation?

2. Is the proper technology in place?
3. Is there an established health information exchange if necessary?
4. What payment model could be used to best support this practice?
5. Are there community services in place to enable patient participation?
6. Is there aligned, blended funding to support community resources?

## 7. IMPLEMENTATION RECOMMENDATIONS AND CONSIDERATIONS

Due to time limitations, the workgroup members were not able to thoroughly identify considerations that should be addressed as implementation of the SHIP proceeds. The following recommendations were compiled by the SHIP staff and reflect the workgroups' suggestions. Additional analysis will be useful to further develop the implementation requirements for tackling the four strategic focus areas. In order to interrupt the disease continuum, the suggested best practices address each stage of that continuum. The graphic below illustrates how each practice maps to the stages of prevention, diagnosis, treatment, and management in order to optimize health at each stage.

### Interrupt the Disease Continuum



**Figure VI.17: Interrupt the Disease Continuum.**



## 7.1 Improve People's Active Participation in Health and Healthcare

The workgroup recommended a menu of interventions to include in the SHIP which could improve people's active participation in health and healthcare. The interventions focus on optimizing health and interrupting disease progression through prevention, treatment, and management.

### Prevention

#### **National Diabetes Prevention Program**

The National Diabetes Prevention Program is based on meeting the CDC's evidence-based standards that help individuals increase physical activity and improve nutrition, problem-solving and coping skills. Program participants meet in community settings or virtually with a trained lifestyle coach and other patients working to prevent diabetes.<sup>42</sup>

The program has been shown to substantially reduce diabetes onset for prediabetics and reduce hypertension.<sup>43</sup> Such programs can help patients prioritize prevention, understand and engage in healthier behavior, get social support, and take control of their health.

*Models and Tools:* Wisconsin has several programs using curriculum that meets the National Diabetes Prevention Program evidence-based standards. For example, the ProHealth Care Hispanic Health Resource Center in Waukesha has achieved full recognition.

The CDC offers [toolkits](#) to help clinics screen and refer patients to recognized programs.<sup>44</sup>

#### **Workplace wellness initiatives**

Worksite wellness initiatives use educational, environmental, and behavioral strategies to improve health-related behaviors and health outcomes among employees and their families. These programs may include written materials, skill-building, counseling, improved access to healthy foods at work, and opportunities to be more active at work.<sup>45</sup>

Worksite initiatives focusing on nutrition and physical activity have been shown to increase physical activity, weight loss, and fruit and vegetable consumption among employees, and can increase participant self-confidence and productivity. They also can reduce employers' medical care costs, and have been shown to produce positive returns on investment.<sup>46</sup> Initiatives may increase participant focus on prevention, help people understand their health needs and engage in health promotion, and improve environmental and cultural support of health.

*Models and Tools:* Initiatives may focus on certain behaviors or promote more extensive change. The CDC's Stairwell to better health, for example, encourages employees to use stairs.<sup>47</sup> QuadMed, based in Wisconsin, partners with employers to offer onsite or near-site primary care and select specialty services. QuadMed focuses on prevention and holistic, patient-centered care<sup>48</sup>

Tools to implement worksite wellness initiatives include the Wisconsin Department of Health Services' [Worksite Wellness Resource Kit](#)<sup>49</sup>, the CDC's [workplace health promotion tools](#)<sup>50</sup>, and WorkWell NC's [tools](#).<sup>51</sup>

### Treatment

#### **Patient Activation Measures with Targeted Interventions**

Patient activation measurement (PAM) tools assess the knowledge, skills and confidence a person has in managing his or her own health and healthcare. Interventions are targeted at those with low activation and focus on improving activation by the acquisition of new skills and encouraging a sense of ownership over one's health. Targeted interventions can include health coaching, educational classes, tailored clinical care teams, and improving an individual's social environment. These interventions can be applied within clinical settings, workplaces, communities, and through mobile technology-based health intervention platforms.<sup>52</sup>

PAM allows targeting of health coaching and other patient education to the patient's level of activation or engagement. As activation increases, goals and skill development challenges become more complex. PAM can also complement Motivational Interviewing, a goal-directed, client-centered counseling style for eliciting behavioral change by helping clients to explore and resolve ambivalence. PAM can also be used to tailor education and care coordination when patients transition from hospital to home,<sup>53</sup> and ambulatory care settings to better allocate staff and services.<sup>54</sup>

Patients with a lower level of activation or engagement are 2-3 times more likely to have unaddressed medical needs and to delay medical care, often leading to higher medical costs. Highly activated patients are more likely to adopt healthy behaviors, adhere to treatment and condition monitoring, obtain preventive care, have lower rates of hospitalization and ED use, and higher levels of patient satisfaction. Studies show that when health coaching is tailored to the patient's level of activation, outcomes improve to a significantly greater degree. These findings have been demonstrated across different populations and conditions, including disadvantaged and ethnically diverse groups and those who have less access to care.<sup>55</sup>

Incorporating PAM along with complementary interventions may allow for more tailored, effective, efficient, and coordinated care, as well as better awareness of socio-economic and other drivers of health.<sup>56</sup> PAM interventions can empower patients to improve self-management and better engage in their health and care.

#### *Models and Tools:*

The Centers for Medicare and Medicaid Services Partnerships for Patients initiative included the mandated use of the PAM across > 3,700 participating hospitals to help tailor support to patients as they transfer from hospital to home (e.g., to help determine if a patient received a home visit versus a telephone follow-up).<sup>57</sup>

Using PAM, PeaceHealth Medical Group's PCMH pilot initiative in Oregon tailored and

coordinated patient care to fit patients' level of activation and acuity by delegating patient coaching, education and outreach to appropriate staff members.<sup>58</sup>

Insignia Health offers information and access to the Patient Activation Measure survey tool, as well as models and training for application of the tool within various healthcare delivery settings.<sup>59</sup> Insignia's online health education platform, Flourish, incorporates user's patient activation level, biometric measures and self-reported health data, to help users learn at their own pace through progressive, interactive challenges.<sup>60</sup>

### **Group visits**

Group visits typically have an interactive group education component and may include individual assessments delivered in the group or privately in an adjacent room. Research indicates improved health outcomes for diabetics including lower blood pressure and better glycemic control.<sup>61</sup> Evidence is insufficient to determine effects on depression. Group visits can improve patient access to care, especially when the provider workforce is lacking, and increase provider productivity.<sup>62</sup> They may improve patients' social connection and cultural support for healthy behavior.

#### *Models and Tools:*

Group visits may be staffed lead provider, medical assistants, documenters, and/or a behavioral specialist. In a cooperative healthcare clinic, patients with a particular diagnosis or those found to be high utilizers are invited to groups specific to their needs. Groups meet monthly and some individual appointments follow. In drop-in group medical appointments, all of a provider's patients have the option to visit during a weekly drop-in time. Drop-in appointments must be well-staffed to address the variety of needs presented.<sup>63</sup> Clinics adapt these models to their needs; the [Westbrook Health Center](#) in Waukesha offers quarterly diabetes management classes with individual appointments for all patients before or after the class.<sup>64</sup>

### **Coordinate Clinical Care**

Care coordination requires organizing care and sharing information among all of a patient's providers to achieve safer, more effective care. Patient needs and preferences are communicated to the right provider at the right time in order to guide care.<sup>65</sup>

Disease management and case management have been shown to improve glycemic control, screening and monitoring for diabetics.<sup>66</sup> Increased coordination may improve communication and information exchange between providers.

#### *Models and Tools:*

Disease management of diabetes includes identification of all people within a system who have prediabetes, diabetes or diabetes and certain risk factors; use of guidelines or performance standards to manage those identified; information systems to track and monitor interventions and patient-, practice-, or population-based outcomes; and measurement and management of patient and population outcomes. Proactive, organized care is focused on, and integrated

across, the entire spectrum of the disease and its complications as well as the prevention of comorbid conditions.<sup>67</sup>

Case management typically targets patients with a disease who are at risk for excessive resource utilization, poor outcomes, or poor service coordination. It includes identifying such patients, assigning a case manager (often a nurse) to assess the patient's needs, developing a care plan, coordinating care, and monitoring plan implementation and health outcomes.<sup>68</sup>

Electronic health information exchange (HIE) can allow sharing of patient data between different healthcare organizations. Systems must be interoperable, i.e., capable of 'talking to each other,' to support health information exchange. Electronic health records (EHRs) designed to exchange information with other EHRs, health information technology systems interfacing with EHRs, patient portals for physicians without EHRs, and regional health information organizations (RHIO) that pool data from different organizations in a centralized database are all examples of health information exchange.<sup>69</sup>

### Management

#### **Chronic disease self-management programs**

In chronic disease self-management programs, people with a chronic disease attend workshops in a community setting. Subjects may include medication usage, social support and mental health, navigating clinical care, and health behaviors.

Stanford's Chronic Disease Self-Management Program (CDSMP) and Diabetes Self-Management Program (DSMP) have been shown to: increase exercise and self-efficacy; improve symptom management, communication with physicians, self-reported health status; and reduce hospitalizations, emergency department visits, health distress, fatigue, disability, and patient limitations.<sup>70</sup> In some circumstances, CDSMP can reduce depression symptoms among those with or without depression, whether delivered in small groups or online. CDSMP appears to reduce costs through averted hospitalizations and emergency department and physician visits.<sup>71</sup> Thus, chronic disease self-management programs may improve health and cost outcomes by connecting patients with others, teaching them self-management skills, and empowering them to improve their health.

#### *Models and Tools:*

Using the CDSMP model, the Wisconsin Institute for Healthy Aging offers [Living Well](#). People with different chronic diseases meet in a community setting over six weeks to attend a workshop. Workshops are facilitated by two trained leaders, one or both of whom are non-health professionals with chronic diseases themselves. Subjects include: coping techniques; exercise; medication usage; communicating with family, friends, and health professionals; decision making; and evaluating new treatments.<sup>72</sup>

#### **Technology-enabled consumer tools**

Technology-enabled consumer tools can provide reminders, education, or self-management for health conditions, and in-home monitoring which patients and clinicians can access. They can also include

web-based portals where patients can view health data and care plans. These interventions are often used in health promotion efforts or to help individuals manage chronic diseases.<sup>73</sup>

Technology-enabled consumer tools have been shown to improve glucose levels, weight management, smoking cessation, and other health behaviors, and to increase medication adherence in some circumstances.<sup>74</sup> Text message interventions appear as effective as, and in some cases better than, usual care in the self-management of hypertension and diabetes.<sup>75</sup> Such interventions may help patients engage in self-management, increase their focus on health needs, and improve activation.

*Models and Tools:* Technology-based tobacco interventions typically provide information, strategies, or behavioral support to assist smokers who want to quit smoking. Such interventions can include websites, computer programs, text messaging or other electronic aids. Some interventions include counseling or pharmacotherapy. Examples of such interventions include [Smokefree.gov](#)<sup>76</sup>, [Freedom from Smoking Online](#)<sup>77</sup>, and [Ex](#).<sup>78</sup> The Center for Technology and Aging offers [tools](#)<sup>79</sup> to improve chronic disease management through technology including mobile devices.

### **Better practice considerations**

Currently, connectivity between chronic disease self-management programs and other organizations serving those with chronic disease varies. Some patients are referred, and some of these avoid poor health and higher cost incidence through this preventive measure.

In better practice, classes would be part of a continuous prevention system to screen patients, connect them to services, and follow up. Patients would receive patient activation services if needed, and be referred to chronic disease management classes only where indicated. Mental health issues such as anxiety or depression would also be addressed through such classes. Incentives would have to be carefully structured to avoid the waste of multiple entities charging for duplicative services. Through classes in this system, patients would take an active role in their health as part of a coherent care system, and through self-management avoid unnecessary health problems and expenditures.

## **7.2 Improve Connections between Clinic and Community/Social Resources for People**

Although unmet basic needs including housing, transportation, and food contribute directly to poor health status and poor healthcare outcomes, the healthcare system does not consistently connect people to community and social service resources for many reasons. First, healthcare providers and payers may be unaware of patient needs. Second, systems to connect people across organizations vary by community. Each healthcare facility or community organization a person may visit may lack the knowledge, information systems, communication with other organizations, processes, training, or staff time to connect clients to resources beyond its walls. Where systems are lacking, interdisciplinary collaboration between health providers and collaboration between providers and social services may suffer. Incentives may also not support collaboration. Finally, communities may also lack organizations

that provide resources, or adequate funding to support them and ensure that they can meet all identified needs.

The workgroups identified practices to improve health and healthcare by assessing patients' physical, mental, and social needs in the clinical setting, connecting people to resources that meet those needs, and coordinating further care and follow up across clinical and community-based organizations. These recommended practices align with CMS' [Accountable Health Communities Model](#), an initiative to enhance clinic-community linkages by encouraging screening for health-related social needs, referral to community services, assistance with service navigation, and alignment of clinical and community services.<sup>80</sup>

### **Screening and referral**

In screening and referral, people are screened for a variety of needs and referred to the appropriate entity for follow up. Entrance points conducting screening could include clinics, mental health facilities, hospitals, emergency room departments, or community organizations.

Screening tools, referral processes, and follow up process would vary by organization and community.<sup>81</sup> People could be screened for: health behaviors such as diet, exercise, and tobacco use; mental health, adverse childhood events, abuse, and social support; and social needs such as food insecurity, employment needs, and housing or transportation difficulties. However, organizations would only conduct screening for conditions they could address through treatment or referral.

Evidence for screening depends on the condition providers screen for. Alcohol screenings and brief interventions have been shown to reduce excessive drinking and appear cost effective. Systems that remind providers to encourage tobacco cessation and refer patients to resources increase quit rates.<sup>82</sup> The U.S. Preventive Services Task Force (USPSTF) recommends clinicians screen adults for depression, diabetes, alcohol misuse, tobacco use, women for intimate partner violence, and referral to diet and physical activity counseling for overweight adults risk for cardiovascular disease.<sup>83</sup> Screening may further connection between providers of various health and social services, make patients aware of prevention programs and opportunities to improve health, and broaden the focus of healthcare to underlying factors that affect health outcomes.

#### *Models and Tools:*

[The HungerCare Coalition](#), convened by Second Harvest Foodbank of Southern Wisconsin, helps clinics screen patients for food insecurity and refer them to food assistance resources. The coalition includes health and community partners and intends to expand from the Madison area to the 16 counties Second Harvest serves.<sup>84</sup>

The [University of Wisconsin's Center for Tobacco Research](#) and Intervention offers training and technical assistance to help health systems integrate tobacco cessation counseling and quitline referral into their workflow. The Center assists hospitals, Federally Qualified Health Centers,

substance abuse and mental health providers, dentists and dental assistants, and other providers.<sup>85</sup>

Computerized clinical decision and support systems can prompt health screening and chronic disease management.<sup>86</sup> Many topic-specific screening tools are widely available. For example, HungerCare offers [resources](#)<sup>87</sup> to help providers screen for food insecurity.

### **Connect clinic and community care**

Connecting clinic and community care includes linking patients to needed community and medical services and exchanging information to further coordinate services. Community health workers, patient navigators, community health navigators, parish nurses, case managers, peer specialists, and/or care coordinators could link clients with services, coordinate care and promote inter-agency communication, offer health promotion services, and monitor health outcomes.

#### *Models and Tools:*

Community Care Teams (CCTs), also called community health teams (CHTs) or care networks, are locally-based care coordination teams employed to manage patients' complex illnesses across providers, settings, and systems of care. CCTs are generally connected to patient-centered medical homes (PCMH), and work with PCMH practices to assess patients' needs, coordinate community-based support services, and provide multidisciplinary care.<sup>88</sup>

[Pathways to a Healthy Bernalillo County](#)<sup>89</sup> identifies vulnerable, low- and very low-income, underserved residents and connects them to a variety of health and social services. Clients are identified through interagency referrals, word of mouth, and street outreach by the program's network of 14 community-based organizations. Community health navigators help individuals and families access additional health and social services, assist with coordination of care, and monitor client progress. Participating agencies receive payments based on their ability to identify at-risk clients, connect them with needed services, and achieve positive outcomes, while a central hub and database help coordinate client services.

[Health Leads](#)<sup>90</sup> enables healthcare providers to prescribe basic resources like food and heat just as they do medication and refer patients for connection to appropriate community resources just as they would for any other identified medical need. The program recruits and trains college students— Health Leads Advocates – to fill these prescriptions by working side by side with patients to connect them with the basic resources they need to be healthy. In Wisconsin, versions of this model are being deployed by the Children's Hospital of Wisconsin and the Marshfield Clinic, among others.

Aurora Sinai Medical Center in Milwaukee assigns social workers to very frequent emergency room users. Social workers help patients make a primary care appointment and develop a plan to attend including transportation and child care.<sup>91</sup>

[CambridgeHealth Alliance](#)<sup>92</sup> (CHA) offers team-based primary care with linkage to community services. CHA's Department of Community Health Improvement works closely with the Cambridge Public Health Department. Together they have developed targeted programs that



reduce health disparities and promote wellness, initiatives to improve overall community health, and collaborative research projects that tackle health issues and impact policy. For patients with social service needs, 2-1-1 is a free, confidential helpline and website with information about services such as food, housing, employment and education, veterans', re-entry, domestic abuse, addiction and rehabilitation, healthcare, vaccination, and mental health services.<sup>93</sup> Similarly, [Aunt Bertha](#)<sup>94</sup> is a national social service directory with topics including food, housing, transit, health, education, care, finances, legal services and employment. Electronic health information exchange (HIE) can allow sharing of patient data between different healthcare organizations. Systems must be interoperable, i.e., capable of 'talking to each other,' to support health information exchange. Electronic health records (EHRs) designed to exchange information with other EHRs, health information technology systems interfacing with EHRs, patient portals for physicians without EHRs, and regional health information organizations (RHIO) that pool data from different organizations in a centralized database are all examples of health information exchange.<sup>95</sup>

### **Better practice considerations**

Currently connection of care varies by clinic and community. In better practice, patients requesting any health or social service who then gave informed consent would be screened, connected to the services they need, and monitored through information exchange. Patients would be screened for trauma and multiple health and social needs, and participating organizations would focus on meeting patients' root issues rather than working exclusively on outcomes (such as readmissions) that result.

Centralized resource information, training for coordinators and screeners, dissemination of best practices, measurement, and a community backbone infrastructure could facilitate this coordination system. Incentives and roles would be aligned so coordination is rewarded but not duplicated. Data and information would also be shared to avoid duplication. Transparency about long-term goals could be key to aligning these resources. Short-term, grant driven goals, anti-trust barriers, and workforce shortages would require consideration. As communities improved connection between community organizations and clinics, patients would interact with prevention-focused systems, get their most significant needs met, and enjoy coordinated, whole-community care.

## **7.3 Expand Primary Care and Behavioral Health Integration**

Workgroup members identified the integration of behavioral health and primary care as being the leading best practice to address the root causes and gaps identified.

### **Integrate behavioral health and primary care**

The integration of primary care and behavioral healthcare services aides in resolving issues of assessment, diagnosis, and management of behavioral health conditions, as well as improving timely and convenient access to behavioral health services for patients, and providing support to primary care providers who frequently encounter patients with behavioral health concerns. The partnership between primary care and behavioral health providers enables them to approach care by looking at



the whole person rather than remaining in silos. Integration of services includes, but is not limited to, immediate consultations (in-person or remote), co-location of services, integrated care teams—behavioral health professionals and primary care professionals as members of interdisciplinary care teams, training programs for clinicians in primary care settings

Integrating behavioral health and primary care will connect providers, improve communication and eliminate silos. This will reduce the current fragmented approach to patient treatment.

#### *Models and Tools:*

##### [Access Community Health Centers](#) Behavioral Health Consultants

Access found less than one-third of primary care referrals for behavioral health are completed; this is due to cost, transportation, limited clinic hours, lack of providers, and the overall stigma related to behavioral health. Access has eliminated many deterrents for patients; instead, patients can receive psychiatric care within the primary care system, a system they are already familiar with. Additionally, this system encourages a collaborative effort between mental health providers and primary care providers with a focus on care for the whole person<sup>96</sup>.

##### [Institute for Clinical Systems Improvement DIAMOND \(Depression Improvement Across Minnesota, Offering a New Direction\)](#)

DIAMOND is a program uniting physicians, care managers and psychiatrists to provide team-based care for patients with depression in the primary care setting. ICSI has implemented this practice in approximately 100 clinics across Minnesota. They have found usual care for depression among their clinics to be very good in comparison to the rest of the country<sup>97</sup>.

[Screening, Brief Intervention, and Referral to Treatment \(SBIRT\)](#) is an integrated, clinical (primary care centers, emergency rooms, trauma centers) and public health (community settings) approach focused on early intervention and treatment services for people with or are at risk for developing substance use disorders. SBIRT includes screening for quick assessment of the substance use to determine the level of treatment needed, brief intervention, and referral to treatment<sup>98</sup>.

##### [Trauma Informed Care](#)

(TIC) addresses extreme stress that overwhelms a person; the stressor can be a single incident, series of events, or chronic subjection (e.g. childhood neglect or domestic violence). TIC is an organized intervention focusing on how incidents of trauma affect a person's life and response to behavioral health services; it focuses on prevention efforts as well as how to approach treatment for people suffering from adverse events. A trauma-informed approach consists of three key elements: Realizing the prevalence of the trauma, Recognizing how trauma affects individuals, Responding by putting this knowledge into practice.<sup>99</sup>

The Wisconsin Department of Health Services offers training and technical assistance to organizations seeking more information about trauma informed care and how it can be applied<sup>100</sup>.

The Agency for Healthcare Research and Quality (AHRQ)<sup>101</sup> offers The Academy: Integrating Behavioral Health and Primary Care. AHRQ offers many resources to assist in coordinating the

integration of behavioral health and primary care. Providers can find where integration is happening, access a literature collection, financing possibilities, education, etc.<sup>102</sup>

### **Better Practice Considerations**

Although workgroup members did not have enough time to devote a thorough review of better practices to fulfill implementation requirements for the SHIP, they were able to identify enablers that elevate the selected best practices to better practices.

Workgroup members identified a need for education, training and continuing education to support integration efforts. The [University of Massachusetts Medical School: Center for Integrated Primary Care](#)<sup>103</sup> is a program focused on the integration of behavioral health and primary care. UMass focuses on training provider collaboration, how to manage treatment and techniques to use with patients. The UMass program is available online and could be used by Wisconsin providers to enable their integration efforts.

Most payment models do not currently support the integration of behavioral health and primary care, thus, workgroup members suggest the creation of a payment model that would enable care coordination and integration.

Interoperability and a robust HIE are imperative to support care integration and coordination. These tools will allow for the exchange of health information and allow providers to use that information to provide effective and efficient patient care.

### **7.4 Reduce Disparities Linked to Poor Health and Healthcare Outcomes**

Workgroup members identified disparities in health status, healthcare access, and healthcare outcomes. These disparities were most frequently experienced by people in very rural and very urban parts of the state, as well as people of color and people with lower levels of educational attainment and lower income. Workgroups recommended the implementation of SHIP strategies be informed by a specific focus on identifying and reducing the most pressing disparities.

SHIP workgroup members recognized in order to affect positive change for individual patients, as well as populations of patients, these disparities must be addressed. If people do not have access to healthcare due to provider unavailability, for example, they will not be able to receive the care necessary to promote health and healing. There are many factors in Wisconsin culture that support low levels of reported healthy behaviors; it is imperative healthy behaviors be encouraged culturally through education, incentives, and policy change. Changing the culture of healthcare begins with examining health through a health equity lens. The SHIP recommends the following best practices to enable this work:

## Data Collection and Dissemination

Collect and disseminate data to understand access to services and health outcomes by race/ethnicity, geography, educational attainment or socioeconomic status, etc.

### *Models:*

Camden Partnership coalition members share information through the [Camden Health Information Exchange](#) (Camden HIE). Their collection of “real time data” allows their [care teams](#) to connect quickly with patients to address their complex care needs and ultimately reduce emergency room utilization and hospitalization rates. The Camden model not only helps reduce healthcare costs, it provides a high quality, patient-centered approach to healthcare.<sup>104</sup>

## Health Literacy

Health literacy is the degree to which people obtain, process, and understand basic health information and services in order to make appropriate health decisions. Low levels of health literacy are associated with poor health outcomes and limited use of preventive care. Patients with low health literacy also appear to have higher healthcare costs and healthcare expenditures. Up to one-half of the US population has limited health literacy; elderly and low income individuals are most likely to have low health literacy.<sup>105</sup>

Increased levels of health literacy will aid patients in making proper health decisions with the hopes of increasing patient activation.

### *Models and Tools:*

The CDC has developed a National Action Plan to Improve Health Literacy. The plan is based on the principles that (1) everyone has the right to health information that helps them make informed decisions and (2) health services should be delivered in ways that are understandable and beneficial to health, longevity, and quality of life.<sup>106</sup> The plan includes seven goals that are designed to be adapted within local organizations:

- Goal 1: Develop and disseminate health and safety information that is accurate, accessible, and actionable
- Goal 2: Promote changes in the healthcare delivery system that improve information, communication, informed decision-making, and access to health services
- Goal 3: Incorporate accurate and standards-based health and developmentally appropriate health and science information and curricula into child care and education through the university level
- Goal 4: Support and expand local efforts to provide adult education, English-language Instruction, and culturally and linguistically appropriate health information services in the community.
- Goal 5: Build partnerships, develop guidance, and change policies

- Goal 6: Increase basic research and the development, implementation, and evaluation of practices and interventions to improve health literacy
- Goal 7: Increase the dissemination and use of evidence-based health literacy practices and interventions

The CDC offers a comprehensive set of tools and resources on health literacy, including guidance on developing patient education and other materials that meet health literacy guidelines<sup>107</sup>.

Wisconsin Health Literacy (WHL) is a statewide organization raising awareness of the importance of health literacy and fostering better communication between healthcare consumers and healthcare providers. WHL is a division of Wisconsin Literacy, Inc., a nonprofit coalition representing a membership of 73 community-based adult and family literacy agencies. Wisconsin Health Literacy provides an array of services with the goal of improving health and healthcare through better communication.<sup>108</sup> Services include:

- Awareness building through presentations on health literacy
- Consultation and assessment with organizations, and determining steps for improvement.
- Education and training, including on-site programs
- Reviewing documents for readability and understandability

### **Culturally Adapted Healthcare**

Culturally adapted healthcare tailors healthcare to patients' norms, beliefs, and values, as well as their language and literacy skills. Care may incorporate language or music preferences, or may delve more deeply into cultural considerations such as social, psychological, and economic factors. Examples of culturally adapted care include: matching specialists to patients by race or ethnicity; adapting patient materials to reflect patients' culture, language, or literacy skills; offering education via community-based health advocates; incorporating norms about faith, food, family, or self-image into patient care; and implementing patient involvement strategies.<sup>109</sup>

#### *Models and Tools:*

The Robert Wood Johnson Foundation, in its Finding Answers project, has developed a roadmap to assess and address disparities in healthcare.<sup>110</sup> Essential steps include:

1. Collect and stratify data by relevant disparity focus areas, including race and primary language.
2. Foster a culture of equity within the organization.
3. Designate staff who have lead responsibility for equity and disparity reduction efforts.
4. Work at multiple levels across the organization.
5. Involve members of the population experiencing disparities in program planning.<sup>111</sup>

Various models and tools were collected by the UW Population Health Institute in a 2012 Issue Brief<sup>112</sup>. Additional resources have been collected by the UW Madison School of Medicine and

Public Health<sup>113</sup>, , including web based and virtual learning tools, a review of efforts in other states to serve patients with limited English proficiency, and strategies to provide culturally relevant care for refugee populations.

### **Cultural Competence Training**

Cultural competence training aims to heighten healthcare professionals' sensitivity to the needs and values of patients from all cultural, linguistic, and socio-economic backgrounds. Such trainings often focus on skills and knowledge to value diversity, understand and respond to cultural differences, and increase awareness of providers' and care organization's cultural norms. Trainings can provide facts about patient cultures or include more complex interventions such as intercultural communication skills training, exploration of potential barriers to care, and institution of policies that are sensitive to the needs of patients from culturally and linguistically diverse (CALD) backgrounds.<sup>114</sup>

#### *Models and Tools:*

The US DHHS Office of Minority Health provides resources, including training curricula, on culturally competent care addressed to physicians, nurses, and patients.<sup>115</sup>

The Wisconsin Department of Health Services Office of Minority Health has collected resources for culturally and linguistically appropriate healthcare services.<sup>116</sup>

#### *Tools:*

Whitepapers and other resources have been collected by the NIH<sup>117</sup>.

### **Health Equity Task Force**

Healthcare providers and payers should create health equity task forces for the purposes of identifying existing disparities in healthcare access and outcomes. Identification of disparities will equip healthcare leaders with an understanding of the disparities and enable the implementation of specific plans to address identified disparities.

#### *Models and Tools:*

Health Partners Minnesota is a non-profit health care organization that consists of a large provider network as well as insurance. They aim to improve the health and overall well-being of their members and the communities in which they serve. Health Partners works to provide affordable health care. They also aim to address disparities in their communities by creating task forces focused on achieving health equity.<sup>118</sup>

### **Community Backbone Organization**

Create a local backbone organization to support collective impact. Such organizations could include coalitions of hospitals, primary care providers, and community representatives that collaborate to deliver better healthcare to the most vulnerable citizens.

#### *Models:*

[The Milwaukee Health Care Partnership](#) brings together healthcare providers, government agencies, and community organizations to develop and implement a plan for change for Milwaukee's most vulnerable populations. Through advocacy and action, MHCP members collaborate to increase healthcare coverage, access and care coordination, creating a healthier future for Milwaukee residents.<sup>119</sup>

### **Community Paramedic Programs**

Implementation of community paramedic programs throughout the state to address healthcare needs of all state residents. Community paramedic programs are a partnership between public and private entities to provide comprehensive care along the healthcare continuum. Expanding the role of emergency service personnel can help fill gaps in access, decrease cost of care, decrease unnecessary emergency room utilization, decrease readmission rates, decrease the burden on primary care providers and increase the health of the state's population through services and education.

#### *Models and Tools:*

Milwaukee County Community Paramedics<sup>120</sup> The UWM college of Nursing, Milwaukee County Emergency Medical Services, the Medical College of Wisconsin and Milwaukee County Fire Departments have partnered to create a community paramedic pilot program. Highly selected, licensed paramedics complete additional clinical and classroom hours that make up the Community Paramedic Curriculum through the UWM College of Nursing; additional training includes topics such as, mental health, motivational interviewing, crisis intervention, and palliative care.

Four Milwaukee County Fire Departments are participating in the program; Greenfield Fire Department (Hospice), City of Milwaukee Fire Department (At Risk Patients), North Shore Fire Department (Patient Education), and West Allis Fire Department (Transition in Care). Each fire department has a specific patient care focus area and is partnered with local hospitals and providers to provide the most comprehensive care possible.

- *Example:* The West Allis Fire Department Program focuses on Transition in Care for elderly patients. West Allis Community Paramedics work with a Nurse Practitioner from Aurora West Allis to identify elderly patients transferring from inpatient care or the emergency department that are in need of follow up care. Community Paramedics complete a comprehensive initial in-home visit with the patient focusing on their needs and health status. Benefits include, direct contact with provider, real-time reconciliation with pharmacists, motivational interviewing, immediate intervention, increased patient engagement, reduced readmission rates and getting to the root of over utilization of emergency services. Additionally, community paramedics are able to connect patients to many community resources, giving patients the tools to help themselves work toward better health. The community has already reaped the benefits of this program; after 124 home visits with 29 patients, the fire department saw an 86%

decrease in non-vital 911 calls and a 71% decrease in visits to the emergency department.

### **Telehealth**

Telehealth encompasses a broad variety of technologies and tactics to deliver virtual medical, health, and education services. Telehealth is not a specific service, but a collection of means to enhance care and education delivery. In Wisconsin, Telehealth can be used in rural areas to connect with patients who would not otherwise have access to specialty care; additionally, it can be used in areas both rural and urban where workforce shortages exist.

#### *Models and Tools:*

Patients located in rural South Dakota have access to Avera Health's eCARE services, a telehealth service that allows patient remote access to primary, specialty, and even urgent care providers. Results of this program include reduced costs, mortality rates and increase patient satisfaction rates.<sup>121</sup>

### **Better Practice Considerations**

Workgroup members did not have time to complete a comprehensive discussion on better practices to reduce disparities linked to poor health and healthcare outcomes. The identified best practices are a solid starting point at reducing disparities for the SHIP selected populations. Innovative payment models, a robust HIE, and measurement of progress will enable the selected practices.

## VII. Enabling Health and Healthcare Transformation

To enable and support the identified transformation goals and strategies, the Wisconsin SHIP also includes specific recommendations for measurement, payment, and health information technology (HIT). In order to achieve operational effectiveness and long-term sustainability all stakeholders involved in the delivery of community and clinical care must be able collect and share information that not only allows for effective patient/people centered care delivery, but also provides the following:

- Accurate and timely measurement on progress and results,
- Ability to correlate care delivery quality to a value-based payment system,
- Efficient and timely exchange, storage, maintenance, and reporting of data.

Without these identified enablers Wisconsin may realize statewide quality improvements in health and healthcare in the near term, but will be unable to sustain those improvements over the long term as the newly created system will be inefficient and expensive to maintain. And while standardization will be required to support specific enabling components, flexibility will also have to be considered to allow the health and healthcare system to evolve and provide as many stakeholders as possible the opportunity to participate.



## 1. TRANSFORMATION MEASUREMENT

To assess the transformation of health and healthcare, we need to measure performance. Measuring transformation and its impact on cost and quality of health and healthcare can facilitate transformation in several ways: 1) foster transparency between consumers, payers, purchasers, and providers, leading to increased accountability; 2) enable consumers to make informed decisions about their health and healthcare; 3) increase patient safety by preventing overuse, underuse, and misuse of healthcare; 4) identify disparities in healthcare; and 5) identify what is working well and what can be improved in health and healthcare.<sup>122</sup> The evolving infrastructure and digitization of healthcare data through health information technology and consumer facing tools has enabled and will continue to enable more reliable measurement in health and healthcare.

Measurement of the goals and strategies identified by the SHIP transformation teams to transformation health and healthcare for the selected populations will identify what is working well and what can be improved. The transformation measurement team was tasked with selecting measures to identify variation, support the creation of statewide focus areas for improvement, provide transparent data for public reporting, support value-based purchasing, and facilitate consumer engagement in well-informed healthcare decision making. The selected measures will be used to support behavior, policy, payment, and practice changes among all relevant stakeholders - providers, purchasers, payers and consumers. Wisconsin currently has a few statewide organizations dedicated to statewide healthcare data. In accordance with the SHIP guiding principles, the transformation measurement team sought to selected measures that were already incorporated into the Wisconsin healthcare landscape where possible, and that align with local, state, and national initiatives. The transformation measurement team recognized that a mix of process and outcome measures is needed, but measures should increasingly focus on patient-centered outcomes, including appropriate risk adjustment that is improved over time.

### 1.1 Introduction

Health and healthcare transformation is enabled by measurement that identifies and creates action. Developing a shared measurement system can help Wisconsin move beyond the fragmented and disconnected efforts of organizations by creating a new degree of coordination and learning that can magnify impact. Collecting data and measuring results consistently not only ensures that all efforts remain aligned, but also enables accountability and learning across organizations. Health information technology is the infrastructure to enable measurement and value-based payment models. Seamless, reliable, up-to-date measurement is a requirement for implementing FFS alternative payment models.

The goal of the Transformation Measurement workgroup was to establish a patient centered definition and framework for transformation measurement. The framework must be supported by and applicable to diverse populations, care delivery, and payment models included in Medicare, Medicaid, and commercial plans. Recommendations should be developed for reporting transformation measures that will lead to improved performance and public transparency. Existing measures should be utilized to minimize the burden on healthcare organizations and providers. All measures were identified to close the gap from the current state to best practice within the selected populations.

## 1.2 Transformation Measurement Development

Today many measurement efforts and resources exist in the state. Wisconsin has been a leader in public reporting and measure development; however, many opportunities exist for improvement to support health and healthcare transformation. Measure initiatives in Wisconsin are often siloed to some degree and insufficient to meet all stakeholder needs for transformation. Additionally, consistent cost and/or value measures are not being used across stakeholder groups. Healthcare organizations and systems are burdened by the amount of reporting requirements and misaligned measures.

Past efforts, such as the SVC, have created core measure sets, but have been challenged with getting buy-in across stakeholder groups. Using the Collective Impact framework, the Transformation Measurement (TM) workgroup was able to create alignment across payers, purchasers, and providers to select a common measure set.

A shared transformation measure definition was created to achieve common understanding across the stakeholders. A shared transformation measure is a standard unit or indicator used to express the size, amount, or degree of something. The intent is to measure and evaluate what is being done, who is involved, how effectively, and at what cost. Shared transformation measures enable gaining insight into and evaluating the organization, effectiveness, and efficiency of the transformation processes. This definition was created and approved by the workgroup and shared with the transformation teams.

Buy-in and consensus on the measures across stakeholders were an important element of the process. To achieve this, the workgroup developed a transparent and consistent process to evaluate existing measures that would demonstrate impact on the transformation goals. Collective impact methods and models were introduced to the group. Best practices were gathered from other collective impact initiatives around measurement.

To better understand that measurement landscape in Wisconsin, the SHIP team identified current levels of measurement: national; state; community; and stakeholder/organization level measures. A Shared Transformation Measures Pyramid was outlined to create a clear line of sight for all levels of measurement. A common vision to thread through the levels of measurement was established using the triple aim. Stakeholder/organization measures, at the base of the pyramid, will be identified in the implementation phase by the participants. The SHIP transformation measurement team aimed to select measures that fall into the complimentary health care system and community level of measurement, with the goal of enabling stakeholder/organization measure initiatives to function in collaboration with community measurement. By using this pyramid tool, the Transformation Measurement workgroup was able to focus their efforts on measures that fit into the community-wide goals, and ensured alignment with all levels of the pyramid.

The purpose of the TM workgroup was to identify collective impact metrics that could monitor impact of the transformation goals. During implementation, stakeholder and communities will identify their specific measures that align with the shared transformation measures. All recommended measures align to the transformation team goals, the SVC/SHIP goals, and the goals of the triple aim.



**Figure VII.1: Line of Sight Pyramid.**

### 1.3 Attributes to Measure Shared Transformation Measures

During the initial phase of the project, the workgroup identified attributes to measure a “good” shared transformation measure. Attributes set the framework for the ideal future state of transformation measurement at the community level. Collective impact resources were used to identify measurement attributes. The attributes were designed to be applied for a spectrum of measures across health and healthcare, including clinical, population health, community, and patient measures. To enable assessment of the attributes, supporting questions were developed for each attribute.

Attributes were identified to create a common understanding and consistent expectations for defining a “good” measure.

- Concentrate on measuring the vital few key variables rather than the trivial many (Fewer are better)
- Measures should be linked to the factors needed for success (key performance indicators)
- Measures should be a reflection of current performance relative to past performance and in relation to the future goal.
- Measures should be based around the needs of customers, shareholders, and other stakeholders
- Measures should start at the top and flow down to all levels of employees in the organization
  - Line of sight -- The measure itself may take a different form (be more granular) the further it travels from the top, but will be connected and within the sphere of influence of the person(s) who use it.
- Where it makes sense, multiple indices can be combined into a single index to give a better overall assessment of performance (but not all processes are suitable for indexing).

- Measures should be changed or at least adjusted as the environment and your strategy changes.
- Measures need to have targets or objectives established that are based on research

Best practices were gathered from other collective impact initiatives in the area of measurement. The workgroup adapted a tool from Strive Together, a cradle to career collective impact initiative, to develop criteria to measure a good shared transformation measure. Supporting questions were identified to provide context to each criteria. The first criteria, is a valid measure of the outcome, is pass/fail meaning if the measure did not meet this standard no additional assessment was completed.

**Table VII.1: How to Measure a Good Shared Transformation Measure.**

Measure Attribute	Supporting Questions to Help Assess a Measure Against the Attribute
<ul style="list-style-type: none"> <li>• Is a valid measure of the outcome</li> </ul> <p><i>Pass/fail rating system</i></p>	<ul style="list-style-type: none"> <li>• Does this measure actually move us on our collective impact agenda?</li> <li>• Could there be any unintended consequences or barriers to this measure?</li> <li>• What evidence supports the relevance of the potential measure and its “fit” with the defined problem?</li> <li>• Does the measure drive the desired behavior?</li> </ul>
<ul style="list-style-type: none"> <li>• Will assess impact towards identified goal</li> </ul>	<ul style="list-style-type: none"> <li>• Does this measure indicate if progress towards the goal(s) has been achieved?</li> <li>• Will this measure show changes to health, healthcare and/or smarter spending?</li> <li>• Can this measure be impacted by best and better practices?</li> </ul>
<ul style="list-style-type: none"> <li>• Is easily understood by the stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>• How is the measure intended to be used?</li> <li>• Who will use it?</li> <li>• Are national or state benchmarks available?</li> </ul>
<ul style="list-style-type: none"> <li>• Is reasonably similar across regions and chosen population/community</li> </ul>	<ul style="list-style-type: none"> <li>• What is the proposed unit of analysis? (person, time, organizational level and geographic area)</li> <li>• What level of granularity is needed?</li> <li>• What populations are included in the current data source(s)?</li> </ul>
<ul style="list-style-type: none"> <li>• Results are produced by a trusted</li> </ul>	<ul style="list-style-type: none"> <li>• Are there existing data sources for the</li> </ul>

source	measure(s)? <ul style="list-style-type: none"> <li>• Who will collect the data?</li> <li>• Will they share the data?</li> <li>• Who will analyze the existing data to produce the reported results?</li> </ul>
<ul style="list-style-type: none"> <li>• Is available consistently over time.</li> </ul>	<ul style="list-style-type: none"> <li>• Are there clear measure definitions? Are the definitions relatively stable or do they change frequently?</li> <li>• Is data timely?</li> <li>• Will the data support trending over time?</li> <li>• Are there existing metrics in the state related to this measure? How widespread?</li> <li>• Who will be responsible for collecting and reporting the data?</li> <li>• How long would it take to implement this measure? Cost to implement?</li> <li>• Is there alignment with other measures?</li> <li>• Is it feasible to collect?</li> </ul>
<ul style="list-style-type: none"> <li>• Results are changeable to a significant degree by local action, and will be useful in the day to day work of collaboratives that are working to improve outcomes</li> </ul>	<ul style="list-style-type: none"> <li>• Is success of the measure supported or hindered by current systems (i.e. payment systems, HIT)</li> <li>• Will the measure provide timely information to make it actionable in the day-to-day work?</li> </ul>

#### 1.4 Existing Measure Inventory

To identify the current state of measurement for the SHIP selected populations the workgroup inventoried existing measures for Diabetes, Hypertension, and Depression. Based on the SHIP guiding principle, we leveraged existing work (i.e. measures) where they were available. The workgroup identified measure inventory fields to be compiled if available:

- Name, description
- Measure steward
- Who is reporting this measure currently (system/clinic/populations)
- Type of analysis being reported (counts or rate, trend or inferential stats)
- Numerator definition (inclusions, exclusions)
- Denominator definition (inclusions, exclusions)
- Possible data sources/Data sources used
- Link to additional measure definitions/specifications (reference URL)

- National Quality Forum (NQF) #, NQF year, if available
- Timeframes – collected

The workgroup also identified potential measure sources for the inventory:

- Wisconsin Collaborative for Healthcare Quality (WCHQ)
- National Committee for Quality Assurance (NCQA)
- Physician Quality Reporting System (PQRS)
- Wisconsin Health Information Organization (WHIO)
- Meaningful Use
- Statewide Value Committee
- SVC (WIMAP)
- CMS recommended sets for Medicaid adults and children
- Joint Commission
- Agency for Healthcare Research and Quality quality measures

The measure inventory (see Appendix 8) was an evolving document and key findings from the inventory emerged. Great work has already been done on measurement in Wisconsin, including a large set of clinical measures for identified populations (approximately 97 measures in inventory). It became apparent that community level measures related to the SHIP populations are not widely available and utilized at a local, state or national level. Additionally, existing measures related to the SHIP populations that were widely deployed in Wisconsin were largely clinically focused.

### 1.5 Assessing Existing Measures

Using the attributes, a tool to assess measures against the attributes was created. Building from the Selecting Community Level Outcomes and Indicators resource from Strive Together,<sup>123</sup> a national collective impact initiative, seven key considerations along with supporting questions were identified to develop the SHIP criteria to measure shared transformation measures.

A measure assessment spreadsheet was created from the Good Shared Transformation Measure tool and used to assess existing measures from the inventory (and other research) for each of the shared transformation goals. A quality improvement tool, the prioritization matrix, was used to create a quantitative value. A scale of 1, 3, or 9 was used to assess if the measures met the identified criteria. Each member of the workgroup individually assessed the measure using this scale, and where there was not agreement the group discussed until consensus was achieved.

- 1 = didn't meet the criteria
- 3 = somewhat met the criteria
- 9 = completely met the criteria

Each measure was then given an overall value based on this scale. Strengths and weaknesses of the measure were captured and documented. Final measures were identified based on the gathered information and scoring, and were then shared with the Advisory Panel and Transformation Teams for feedback.

## 2. IDENTIFYING SHARED TRANSFORMATION MEASURES

Individual workgroup members identified existing measures for the transformation goal being assessed. The group then assessed all appropriate measures collectively. Where measures did not exist for the goals, the group brainstormed new process measures to monitor implementation progress of the goal. Group assessment created a multi-stakeholder approach that incorporated a discussion about the selected measure from various stakeholder perspectives. Strengths and weaknesses were captured from these discussions and documented into the tool. Consensus on the recommended measure was obtained by reviewing the criteria and scoring. Following the selection process, recommended measures were shared with the transformation teams, the SHIP leadership team, and the Transformation Measurement Advisory Panel for review and feedback. Adjustments were made based on the feedback, and recommended measures were finalized.

Transformation measures were selected for both goals identified by the Transformation Teams (see Appendix 9). Gaps were identified through the selection process and documented. At the goal level, existing measures were available and used. However, a gap exists for most measures for the identified transformation strategies. National or state standard measures do not exist for most of the strategies identified. Best practice process measures were then identified to provide a framework for monitoring and measuring progress.

### 2.1 Goal 1: Optimize Care Delivery and Interrupt Disease Progression Across the Health and Healthcare Continuum

Outcome measures to determine the impact of the goals on the selected populations were identified. Prevalence<sup>124</sup> and incidence<sup>125</sup> rates for Diabetes, Hypertension, and Depression were identified by the Transformation Measurement workgroup as the best indicator of the goal on both health and healthcare. Progression on these measures would indicate that less people were getting the identified illnesses and therefore the activities being implemented were improving general health of the population. Additional health measures would also be monitored by tracking social determinants of health such as obesity, tobacco use, stress, alcohol use, and physical activity rates. Complication rates of Renal Disease, Retinopathy, Stroke, and Amputation were also selected to be measured to demonstrate impact on disease progression. Optimal testing and optimal control measures were selected for both populations along with screening and follow-up plan measures for Depression to monitor care delivery optimization. Health measures will be monitored

### 2.2 Goal 2: Smarter Spending

Building on the work of the SVC Measures Advisors workgroup, the Transformation Measurement workgroup recommended that smarter spending is measured by total cost of care (TCOC)<sup>126</sup> and total resource use (TRU).<sup>127</sup> The Health Partners specifications were selected in the SVC workgroup as the best practice. The best practice was confirmed in the Transformation Measurement workgroup. An additional recommendation is being made to support the Wisconsin Health Information Organization's

(WHIO) model of TCOC and TRU, provided that WHIO obtains allowed amounts.<sup>128, 129</sup> Initially, these measures can be assessed using Medicaid data. It is recommended that we support WHIO is working to capture allowed amounts for all commercial payers for future expansion of these measures. Admissions and readmissions for ambulatory sensitive conditions would also be measured for goal 2.

### 2.3 Strategy 1: Improve People's Active Participation in Health and Healthcare

The Patient Activation Measure (PAM)<sup>130</sup> was identified as a best practice within the transformation teams. It is the recommended measure to improve people's active participation in health and healthcare at a community level. PAM should be gathered and reported consistently over time and implementation considerations will need to include defining the measure owner, defining who will collect the measure and the frequency, and identifying resources necessary to implement and report this measure.

### 2.4 Strategy 2: Improve Connection between Clinic and Community/Social Resources for People

Standard, endorsed measures were not readily available and identified in the existing measure inventory to track the connection between clinic and community/social resources. Therefore, the Transformation Measurement workgroup recommends tracking process measures to identify progress in this area. Implementation considerations, such as frequency, geography segmentation, and method of reporting the process measures, would need to be addressed during an implementation planning phase. Identification of how many medical health care organizations in partnership with their community have a current inventory of social health resources should be gathered as a baseline in the implementation phase of the plan.

- How many counties have a current inventory of social health resources?
- How many counties have a current inventory that is publicly accessible?
- How many organizations and hits have actively used the inventory in the last 12 months?
- How many counties have resources that match their targeted disease needs?
- What is the volume of use (utilization) for the targeted resources listed in the inventory?

In later phases of implementation, health IT shared services would include a statewide health and human services provider and organization directory. This directory should be used to advance the inventories outlined in the process measures for further sustainability and spread. Clinic electronic health record could also be considered for tracking high risk patients that access community/social resources.

### 2.5 Strategy 3: Reduce Disparities Linked to Poor Health and Healthcare Outcomes

Several disparities in health and healthcare among the SHIP populations were identified during the transformation team fact finding stage, such as: disparities in access, overutilization, and social determinants of health exist, disparities in health status, healthcare access, and outcomes by sub-populations, including gender, race, income, access and education level among other things. The transformation measurement workgroup concluded that additional measures are not needed to measure progress in achievement of this transformation strategy. However, workgroup recommended



utilizing the selected measures and segmenting data by age, payer, race, income level, educational level, gender, and sexual orientation to measure disparity reduction.

## 2.6 Strategy 4: Expand Primary Care and Behavioral Health Integration

The workgroup considered the current state of measurement in the integration of primary care and behavioral health. The Agency for Healthcare Quality and Research developed a framework for measuring integration of behavioral health and primary care.<sup>131</sup> The framework includes function measures (i.e. clinical functions necessary to integration, successful operations, etc.) and measurement constructs (i.e. process and outcome measures). Additionally, Intermountain Healthcare has outlined Mental Health Integration (MHI) in three levels for implementation and measurement.

Although measures exist for integrating primary care and behavioral health, they are not currently widely adopted and used through Wisconsin. It is recommended we build on best practices in this area to develop thoughtful measurement. Additionally, a definition of “primary care and behavioral health integration” for SHIP implementation would need to be developed with a multi-stakeholder group.

## 3. IMPLEMENTATION CONSIDERATIONS

The workgroup identified shared transformation measure implementation considerations for various stakeholders. If implemented, shared transformation measurement guidance for each measure would need to be developed to produce consistent and reliable data. A data aggregator organization would need to be identified and responsible for transparently reporting the progress of achievement of the SHIP goals and strategies.

### 1. Measure Definition

- For measures to be finalized, they will need detailed specifications, to define resources necessary to implement (i.e. data collection burden), and a process control plan.
- For measures that are not currently endorsed, the following needs to be defined:
  - What are the measure specifications?
  - Who is the measure owner?

### 2. Resources

- Who is going to collect the measures and the frequency they will be collected needs to be outlined for each measure.
- A plan needs to be developed to identify who is responsible for reviewing the measures and the action they will take if the measures are not moving in the correct direction (or at the proposed pace).
- A data aggregator needs to be identified for each measure, as appropriate.
- Financial resources need to be allocated to pay for the capture, reporting, and the technical assistance necessary to implement new measures.
- Resources need to be allocated for ongoing review and updates of the measures. An entity should be assigned to oversee and maintain the measure along with tracking the changes.

- Buy-in is required by leadership and the data reporting resources within each organization. Having a statewide driver, such as the SVC or the Department of Health Services, would be valuable in organization engagement.
3. Prioritize measurement areas that have high resources and high needs to begin.
    - Multiple types of organizations and stakeholders should be considered when identifying strategies to deploy and capture new measures. For example, small, independent practices may have different needs than a large, integrated delivery network. Resources and tools should be developed for both.
  4. Alignment and Drivers
    - Aligning the measurement of local initiatives should be considered.
    - A clear vision and drivers should be communicated to organizations as new measures are deployed.
    - What levers can be used to move the measurement and the work forward?
    - Creating will across the state to collect and report these measures is essential.

#### **4. PURPOSE**

The purpose of measurement is not to just inform. The true value of a measure is its ability to identify and create action that will lead to transformation. All measures will be connected to closing the gap from current state to best practice with a specific sub-population. Currently, Wisconsin has many measurement assets, such as the Wisconsin Health Information Organization, the Wisconsin Collaborative for Healthcare Quality, and the Wisconsin Hospital Association. There is not a current inventory of all of these measures including their specifications, and measures are often siloed and insufficient to meet all stakeholder needs for transformation to occur. There is no consistent cost and/or value measures being used across stakeholder groups, and there is a lack of consensus around the terminology and purpose of cost and/or value measures. Healthcare organizations and systems are burdened by the amount of reporting requirements and misaligned measures. “The failure to prioritize value improvement in healthcare delivery and to measure value has slowed innovation, led to ill-advised cost containment, and encouraged micromanagement of physicians' practices.”<sup>132</sup>

#### **5. NEXT STEPS**

The Transformation Measurement workgroup has a strong list of recommended measures for all of the transformation goals and strategies. However, further refinement and definition of many of these measures are needed to implement them successfully. A strong backbone organization will be needed to gain buy-in, set expectations, assign resources, and provide technical assistance to organizations to collect and report these measures. Additionally, support will need to be provided to communities to identify process measures to ensure their activities are aligned and producing results towards the transformation goals.

Alignment with payment reform and health information technology efforts will be critical to the successful implementation of transformation measurement. If the payment models do not utilize the recommended measures or the technology is not available to support the measurement, it will be very challenging to track collective impact towards transformation goals.

## 6. PAYMENT MODELS

The overall goal of the SHIP is to improve health and healthcare outcomes, and slow healthcare cost growth. New work and investments, coupled with the elimination of inefficiencies, will be needed to achieve these goals. While these investments will likely be financed out of avoided healthcare costs in the medium term, some up front investments will be required to realize these savings. Initially, a slower rate of healthcare cost growth may represent success. As new models of care and value based payments support reductions in healthcare expenditures savings should be returned by providers and payers so that employer and employee premium costs are reduced, Medicaid and Medicare expenditures are reduced, and the affordability of healthcare is improved for all.

SIM funding required the pursuit of payment models that link reimbursement to value, moving away from FFS towards care coordination, high quality, better health outcomes, and reduced costs.<sup>133</sup> The purpose of the Payment Models team was to develop approaches to payment that will support successful implementation of the care delivery system transformation and population health improvement strategies identified by the SHIP transformation teams. The Payment Models team developed criteria to evaluate desirable payment and financing approaches, value-based payment options to support implementation of the recommended approaches to payment, and implementation considerations.

### 6.1 Payment Models Development

The work of the payment models team was informed by several unique features of the healthcare payment and delivery landscape in Wisconsin. Wisconsin residents are more likely to have employer-sponsored health insurance than the nation on average.<sup>134</sup> Many of Wisconsin's large integrated delivery systems are participating in Medicare shared savings and Pioneer ACOs. Wisconsin has prior experience with private-public sector leadership of care redesign, transparent data on healthcare provider performance, and payment reform. The state-level work in payment reform work was developed through a project of the Wisconsin Health Information Organization (WHIO) known as the Partnership for Healthcare Payment Reform (PHPR). PHPR successfully launched a bundled payment for total knee replacement in the commercially insured population, and did not successfully launch a shared savings project for patients with diabetes and co-morbid conditions. Wisconsin healthcare stakeholders have participated in 38 additional CMMI funded innovation projects. The state also features a highly pluralistic payer marketplace, with nearly 20 health plans participating in both the Medicaid and state employee health benefit programs.<sup>135</sup>

### 6.2 Attributes of a "Good" Payment Model

The Payment Models team began its work by developing five attributes of an optimal or "good" payment model to guide its evaluation of available payment methodologies to support the SHIP transformation teams' recommendations. Supporting questions to further assess payment models were developed for each attribute. Those attributes are as follows:

1. Provides adequate, sustainable resources for the staff and infrastructure necessary to deliver better practices and achieve desired transformation in health and/or healthcare.

2. Aligns incentives and removes barriers for better practices by all those with a stake in the outcome.
3. Provides resources that are risk-adjusted as needed and are appropriate given the characteristics of the people being served and the desired outcomes to be achieved.
4. Supports efforts that are expected to realize high-value improvements in health and/or healthcare, thereby making progress toward achieving transformation goals.
5. Contains core attributes that can be applied/implemented by many different organizations across the state, and across many health conditions. There are no obvious barriers to implementation that would require extraordinary efforts. The model is viewed as worthy and achievable.

The team first used the attributes to assess what we know about current value-based alternatives to fee-for-service reimbursement (e.g., pay-for-performance, care coordination payments, shared savings, episode of care payments, and global payments), and then used the attributes to arrive at its recommended payment approaches.

### 6.3 Current State of Payment in Wisconsin

The Payment Models workgroup determined the best method to generate an accurate picture of the current state of payment in Wisconsin would be to survey payers in the state about their programs. The team developed a survey and it was distributed to 18 payers participating in the Medicaid and 18 payers participating in the state employee health benefit programs to gather baseline data on the share of reimbursement that is today paid in some value-based alternative to fee-for-service. That survey did not generate reliable data and should be repeated with the support of an organization such as the Catalyst for Payment Reform.

### 6.4 Gaps and Root Causes

The payment team considered many gaps between the current FFS dominated landscape and the desired or “future state” landscape where most payments are made in value-based alternatives to FFS. The team further identified root causes that today prevent us from arriving at payment models that more closely embody the “good” attributes above. Key observed gaps and root causes were as follows:

Gap: Current payment systems don’t adequately compensate for interdisciplinary care teams or primary care/behavioral health integration

Root Causes:

- Existing FFS model for reimbursement requires a physician/provider to patient contact
- Wisconsin’s diverse payer landscape results in small patient volume in certain payer-provider pairs, making payment innovation difficult

Gap: Community/social resources aren’t well connected to clinical environments, and aren’t themselves adequate to needs

Root Causes:

- Providers are not paid for the time to identify and make referrals in the current FFS models
- Providers don't employ the staff necessary to make referrals
- Traditionally this expertise [social needs, how best to address with community resources] is outside of the healthcare system

Gap: Provider and payer systems are tied to current revenue levels and mechanisms for generating revenue (i.e. volume vs. value)

Root Causes: Both providers and payers have disincentives to move away from the current fee-for-service reimbursement system. While all acknowledge that "change is coming," there are issues of readiness and motivation on both sides.

### 6.5 Recommended Payment Models

The payment team took in the information from the transformation teams on the health and healthcare issues confronting the SHIP populations, and the recommended interventions.

The payment models workgroup recommends that implementation consideration be given to alternative payment models consisting of **fee-for-service with pay-for-performance, and care coordination payments**. While shared savings and global payments both hold promise as more comprehensive value-based payment strategies, the workgroup felt that well-designed P4P and care coordination payments would accomplish the objectives of improving health and healthcare outcomes, and reducing costs, for the SHIP populations. The workgroup further concluded that these approaches could be successfully integrated into overarching shared savings and global payment reforms and implemented by private and public payers alike.

### 6.6 Implementation Considerations

The workgroup discussed implementation considerations of **fee-for-service with pay-for-performance, and care coordination payments** in the following areas:

#### Benefit Plan Design

Benefit plan designs should be reviewed to determine whether barriers to best care for people with diabetes and hypertension and/or depression exist and could be removed. Special focus should be given to coverage for patient activation and engagement strategies, e.g. group visits, meetings with health navigators, and chronic disease self-management classes. Participant incentives are important and are currently difficult for the state Medicaid program to implement.

#### Self-Funded Employer Groups

The participation of self-funded employer groups is essential to successful SHIP implementation, as the vast majority of Wisconsin's commercially insured residents are in self-funded plans and this trend is on the increase.<sup>136</sup> The workgroup recommends that engagement of self-funded groups and their third party administrators and other partners begin with a solid demonstration of the costs associated with

employees with diabetes, hypertension, and depression, and the cost-avoidance potential of the SHIP strategies.

### **Metrics**

Measures of improvement in health and healthcare outcomes, as well as cost-effectiveness, should be developed and shared across those implementing aspects of the SHIP. This set of metrics could perhaps be a menu from which participating providers and payers would choose through negotiation. The SHIP Transformation Measurement team identified several measures for the SHIP goals, which could be used to inform payment approaches.

### **Administrative Feasibility**

The workgroup made recommendations to enhance the administrative feasibility of its recommendations, focusing on coding, timely and fair investments in care redesign, and risk adjustment methodologies. Administrative barriers to implementation would be reduced by coordination and best practice sharing across implementation partners.

### **Physician Compensation**

Physician compensation systems should be evaluated by providers implementing the SHIP to ensure that appropriate incentives are in place to support providing the recommended care for SHIP populations while avoiding the complications and adverse events that many are experiencing.

## **6.7 Medicaid and Medicare**

The workgroup carefully studied the future direction of the Wisconsin Medicaid program, as well as Medicare's public statements on payment transformation. As the SHIP moves into implementation it will be important to continue to pursue intentional alignment with Medicare and the state Medicaid program.

## **6.8 Funding Community Services**

Given the emphasis in the SHIP between clinical care and community services, the workgroup recommends that local implementers pursue community-level dialogue with those delivering and funding community services, including: local public health, planning, community development, and human services agencies; United Way; community action agencies; community foundations; and other locally relevant service providers and funders.

## **7. IDENTIFYING VALUE BASED PAYMENT MODELS**

The purpose of the Payment Models team was to develop approaches to payment that will support successful implementation of the care delivery system transformation and population health improvement strategies identified by the SHIP transformation teams. The Payment Models team developed value-based payment options to support implementation of the best and better practices recommended by the SHIP transformation teams. To accomplish this work, the Payment Models team developed a variation of the Transformation Workflow (see Table VII.2).

**Table VII.2: SHIP Payment Models Transformation Workflow.**

Transformation Sequence	Establishing Vision for Payment Transformation	Fact Finding	Shared Transformation Goals	Gap Identification/ Analysis	Aligned Best/ Better Practices	Transformation Requirements
<b>Payment WG Deliverables</b>	Attributes of a Good Payment Model	Payment/ Investment Key Findings	Prepare to support transformation goals with smarter spending for healthier people and healthcare value	Payment/ Investment Gap Report	Smarter Spending Menu	Implementation Roadmaps
<b>Why?</b>	Build a framework to understand better approaches to payment/ investment in health and healthcare for target populations	Understand current approaches, in WI and nationally, to payment/ investment for health and healthcare of target populations. Surface promising practices.	Transformation teams establish vision, across stakeholder groups, of what it means to support health and healthcare needs of target populations.	Understand current approaches to payment/ investment as compared to attributes of "good" payment model. Identify gaps. Understand sources of gaps for key stakeholder groups.	Identify better approaches to payment and investment across stakeholder groups to support best/better practices identified by transformation teams	Support implementation of best and better payment/investment practices with necessary frameworks, definitions, resources. Provide guidance as to: Who, What, and How

### 7.1 Establishing Vision for Payment Transformation

During the fact finding phase of the project, the Payment Models team identified Attributes of a Good Payment Model (attributes) to build a framework to understand value-based approaches to payment in health and healthcare for target populations.<sup>137</sup> The attributes set the context for the ideal future state of value-based alternatives to fee-for-service (FFS) payment models in Wisconsin and were used to identify and assess gaps between the current state of payment in Wisconsin and the ideal future state. The attributes were designed to be applied broadly, reaching beyond healthcare payment to include sustainable, equitable financing for recommended clinical as well as community interventions.

The Payment Models Workgroup and Advisory Panel identified supporting questions to help assess a payment model against the attributes. The attributes and supporting questions are as follows (Table VII.3):

**Table VII.3: SHIP Payment Models Attributes of a Good Payment Model and Supporting Questions.**

Attribute	Supporting Questions to Help Assess a Payment Model Against the Attributes
1. Provides adequate, sustainable resources for the staff and infrastructure necessary to deliver better practices and achieve desired transformation in health and/or healthcare.	<ul style="list-style-type: none"> <li>Do payers and providers share a vision of the desired outcomes to be achieved?</li> <li>Are resources available to support the work required to achieve the desired outcomes??</li> <li>Are the resources available over time, consistent with the expected duration of the better practices?</li> </ul>
2. Aligns incentives and removes barriers for better practices by all those with a stake in the outcome.	<ul style="list-style-type: none"> <li>Is each organization or individual whose participation is needed to achieve the desired result influenced by the payment approach? Consider: purchasers/initiative sponsor, payer/financer, provider/service organization, patient/consumer, family member, other.</li> <li>What are the barriers to better outcomes, and how does the payment model support reducing or removing those barriers?</li> </ul>
3. Provides resources that are risk-adjusted as needed and are appropriate given the characteristics of the people being served and the desired outcomes to be achieved.	<ul style="list-style-type: none"> <li>What is the gap that needs to close between current and desired outcomes, current practice and better practice?</li> <li>Has the payment/investment model been adjusted to account for the magnitude of the gap?</li> <li>What are the unique needs of the population being served?</li> <li>How does the payment model address those unique needs?</li> </ul>
4. Supports efforts that are expected to realize high-value improvements in health and/or healthcare, thereby making progress toward achieving transformation goals.	<ul style="list-style-type: none"> <li>What gives participants confidence that the proposed intervention or better practice will facilitate different behaviors and better outcomes?</li> <li>How does the payment model support successful, sustainable, equitable implementation of this intervention or better practice?</li> </ul>
5. Contains core attributes that can be applied/implemented by many different organizations across the state, and across many health conditions. There are no obvious barriers to implementation that would require extraordinary efforts. The model is viewed as worthy and achievable.	<ul style="list-style-type: none"> <li>Can the approach be adopted and implemented by all necessary and desirable participants?</li> <li>Are there regulatory or contractual barriers? How will those be addressed?</li> <li>Does the approach address a problem in which all necessary and desirable stakeholders are interested?</li> <li>Is there demand for an alternate approach?</li> <li>Are there any unintended consequences to the change in payment or investment?</li> </ul>

## 7.2 Fact Finding

The focus of the Fact Finding phase in the Payment Models team was to understand current approaches, in Wisconsin and nationally, to payment/investment for health and healthcare of target populations. The SHIP project team developed a payment models inventory and conducted research on each of the following payment initiatives for the Payment Models workgroup and advisory panel to assess:

1. Review of pros and cons of fee-for-service reimbursement and its various alternatives, including:
  - a. Pay-for-performance



- b. Payment for care coordination
  - c. Shared savings
  - d. Condition-specific episodes or bundles
  - e. Global capitation, with a drill down into lessons learned from California
2. Other SIM awardees' approaches to value-based payments;
  3. CMMI comprehensive primary care initiative;
  4. Massachusetts Blue Cross Blue Shield Alternative Quality Contract;
  5. CMS' Next Generation ACO;
  6. Iora Health (direct primary care models);
  7. Paying for Clinic to Community Connections;
  8. Current priorities of the Wisconsin Medicaid program; and
  9. Medicare's current and intended approach to value-based payment.

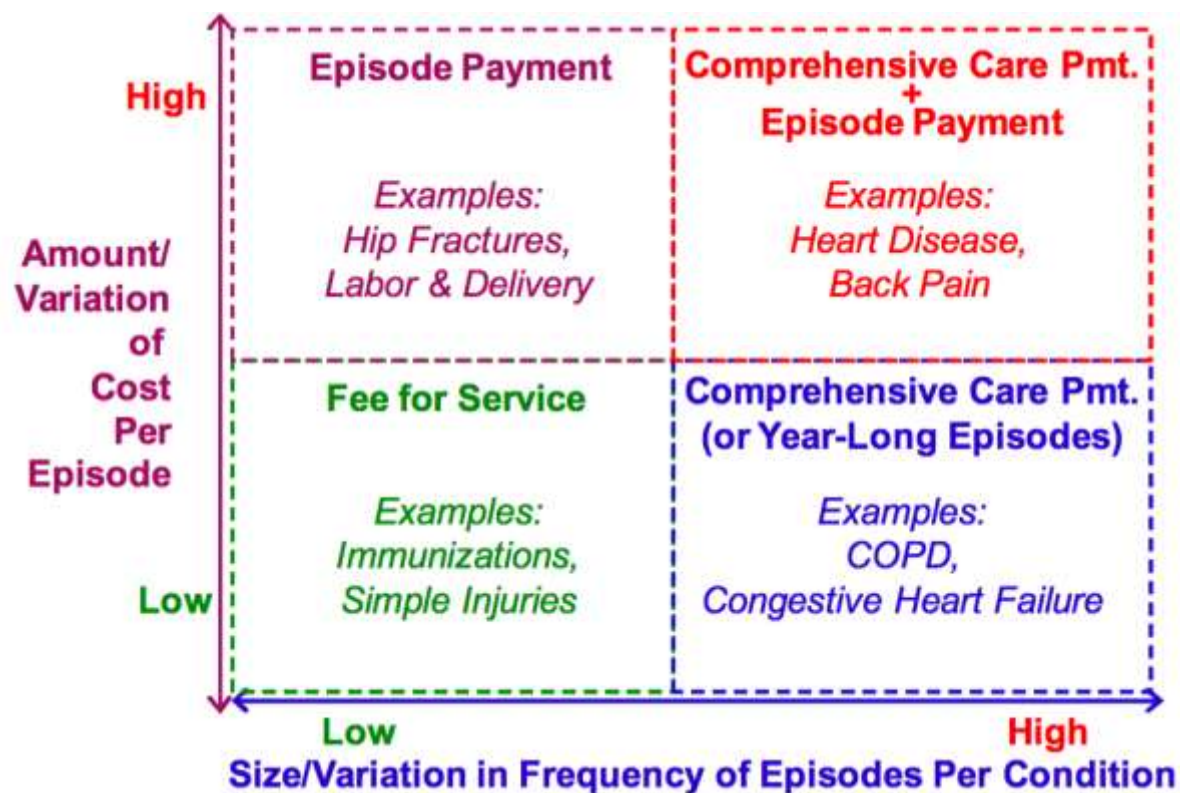
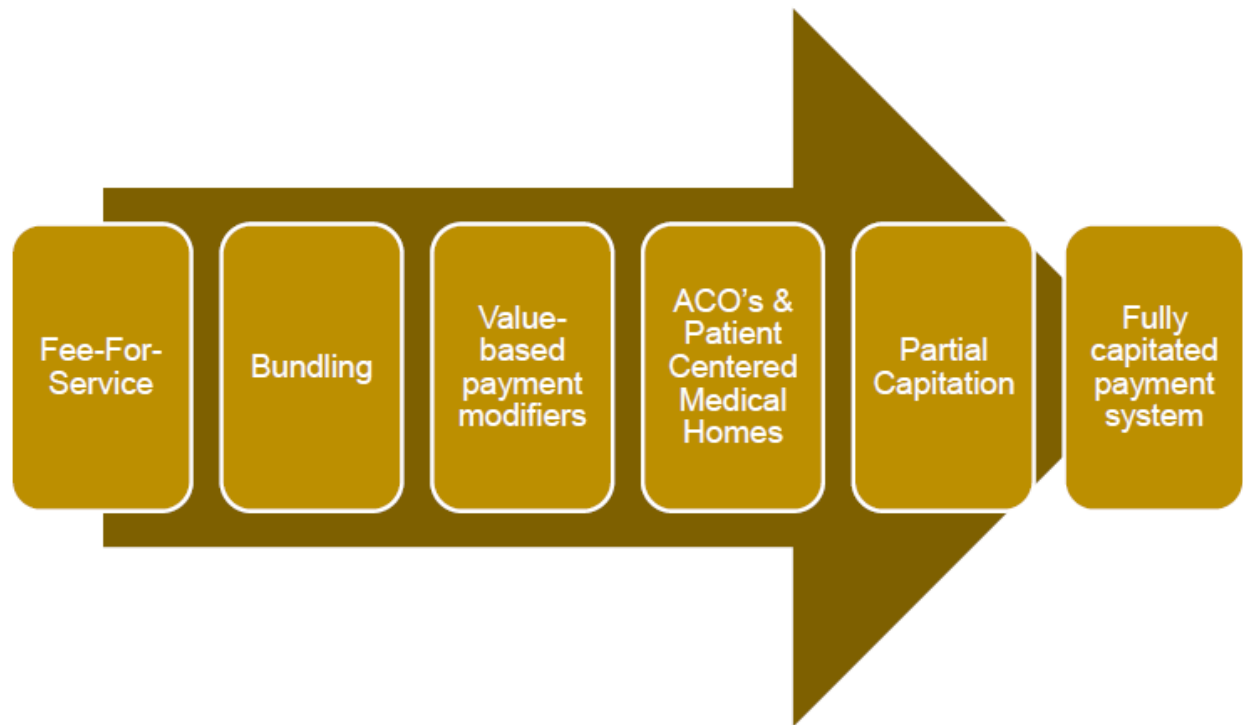


Figure VII.2: Different Payment Systems are Designed to Address Different Cost/Quality Problems.



**Figure VII.3: Spectrum of Payment Models.**

### 7.3 Learnings from Payment Models Inventory

The Payment Models workgroup considered each of the current approaches to payment innovation and discussed their pros, cons, and how they could be improved. See Appendix 10 for Payment Model Analysis.

**Fee-for-service** would be closer to the attributes of a good payment model if: prices were more transparent, productivity was geared toward services that support prevention and the interruption of the disease progression, and if applied to under-used services as an incentive to improve care.

**Pay-for-performance** would be closer to the attributes of a good payment model if: only true high performers were rewarded; evidence-based, statewide, standard metrics for all chronic diseases were used; achieved outcomes were retired; and incentive payments were invested in patient-centered practice improvements.

**Pay for coordination** would be closer to the attributes of a good payment model if: coordination could be a core, universal component of routine care and not an add-on; the care coordination work-force could be expanded, so physicians can function at the top of their license; and care coordination existed not only for patients with multiple chronic disease, but also for preventive services for healthy patients with multiple risk factors.

**Shared savings** would be closer to the attributes of a good payment model if: the scale/scope of the savings was large enough to fully align payers and providers; risk adjustment were universal and

consistent; and the model could be adapted for a more expansive vision of health promotion and disease prevention, as preventive care is not currently an attractive candidate for shared savings.

- **Bundles and episode of care payments** would be closer to the attributes of a good payment model if: each episode of payment included a warranty; payments were risk adjusted; outlier experiences could be excluded; and if successful models could be developed and spread for chronic disease and prevention.
- **Capitation** would be closer to the attributes of a good payment model if: capitated payments were risk adjusted and included incentives and safeguards for quality; a solution could be developed for independent providers as well as large integrated groups; outlier risk was fairly handled; and transparent cost and quality data were available to all.

## 7. OTHER SIM AWARDEES' APPROACHES TO VALUE-BASED PAYMENTS

The Payment Models workgroup assessed other SIM state Round 1 and Round 2 Model Test approaches to value-based payment. In general, it appears that most SIM states are implementing patient centered medical home (PCMH) and accountable care organization (ACO) models, or a variation of these models. Common payment approaches included pay-for-performance, care coordination payments, and shared savings, with some two-sided risk models particularly with Medicaid HMOs. A key theme noted in other SIM Model Test states is that SIM funding jumpstarts and scales state health system innovation efforts, enables the development of relationships between the public and private sector, and engages stakeholders. Most other SIM states' approaches to payment and delivery system transformation appear to be largely driven by the priorities of the Medicaid program in those states. State employee purchasing programs are participating in about half of the current SIM states, and other commercial payer participation varies widely. See Appendix 11 for other SIM state payment model approaches.

### 8.1 CMMI comprehensive primary care initiative

In October 2012, CMMI launched the Comprehensive Primary Care Initiative (CPC), a collaboration between public and private healthcare payers, and providers, to improve primary care delivery. The Payment Models workgroup studied this approach as a recent national innovation in care delivery and payment with a great deal of relevance to Wisconsin's SHIP populations.

CPC's overall aims are better healthcare, better health outcomes, and lower costs. The initiative requires that practices meet annual milestones to build the capability to deliver CPC's five functions: (1) access and continuity, (2) planned chronic and preventive care, (3) risk-stratified care management, (4) patient and caregiver engagement, and (5) coordination of care across the medical neighborhood. To help practices achieve these functions, CPC offers three main supports: enhanced payment, data feedback, and learning activities and technical assistance. Net savings are expected to be realized beginning at 18 months.

#### Keys to successful implementation:

- Prior experience with quality improvement or practice transformation initiatives

- Practice-specific assistance from a regional learning facility
- Independent practices were often able to make more rapid change
- System-owned practices tended to have greater access to management resources and health information technology (HIT) experts to assist CPC implementation
- Practices' participation in the Medicare EHR meaningful use incentive program— which encouraged practices to implement and use patient portals to support meeting meaningful use requirements—provided important external support for implementation of patient portals for CPC

#### **Challenges:**

- Practice-level HIT was often inadequate to support shared decision-making work processes, risk stratification documentation, or info sharing across care teams
- Many practices lacked direct access to EHRs from providers in other care settings (i.e. hospitals and specialists) and therefore had to use inefficient workarounds to obtain information needed for care coordination and care management
- Some practice staff perceived that making certain improvements is complex and difficult. This posed a substantial barrier to implementing change
- Implementing learning activities has been challenging and the quality, intensity, and practice-specific tailoring of the learning activities varied across regions
- Many payers felt that communication issues and a lack of transparency in their interactions with CMS made for a challenging first year

### **8.2 Massachusetts BCBS Alternative Quality Contract**

The AQC is a two-sided contract with shared savings if spending is below budget and shared risk if spending exceeds the budget (a so-called risk contract). Organizations receive quality bonuses that are based on 64 measures, including processes, outcomes, and patients' experiences in the ambulatory care and hospital settings. Enrollees are prospectively attributed to provider organizations by means of the affiliation of their PCP, whom they designate each year. The provider organization is then responsible for managing a population budget, similar to the idea of the patient-centered medical home within a "medical neighborhood." Providers also receive frequent reports from BCBS regarding cost and quality performance, including peer organization comparisons, to help providers identify areas of potential overuse and improvement.

#### **Keys to successful implementation**

- Statewide health insurance reform prompted the formation of the Massachusetts Special Commission on the Health Care Payment System which recommended a statewide transition towards capitated payment. This created the conditions for the development of the AQC.
- BCBS provides significant support to practices (data sharing, quality improvement consultation, etc.)

#### **Challenges to implementation**

- Enrollees in preferred- provider organizations and most employees of self-insured firms remain largely outside of the AQC
- Purchasers have expressed concern that costs will be shifted onto the remaining FFS population (thus far, this has not yet occurred)

### 8.3 Iora Health

The workgroup considered one example of a disruptive innovation in primary care service delivery and payment, known generically as “direct primary care.”<sup>138</sup> Iora Health is a private start-up with 140 employees in 12 primary care practices whose payment model is based on a risk-adjusted fixed fee per patient revenue stream. Iora Health emphasizes its patient centered approach (extended hours, health coaches), the simplicity of the payment model (fixed fee per member per month), and its salaried providers who are relieved of the administrative headaches associated with fee-for-service billing and also do not have the perverse incentives of an RVU-based compensation system. The payment model is designed to be easily scalable to a nationwide level and works with insured individuals, insurance companies, self-insured employers and union trusts.

### 8.4 Paying for Clinic to Community Connections

Clinic to community connection refers to screening, intervention, and/or referral in the clinic or hospital setting that either directly addresses the upstream social determinants of health (e.g., housing, transportation, education, food security) or connects patients with community resources to help address those needs. The growth of value-based payment models is enhancing providers’ economic incentives to incorporate social interventions into their approach to care. Even if new payment models do not require social interventions, many providers have concluded that they are essential to achieving clinical quality metrics and succeeding in current pay-for-performance or shared savings payment environments.

The Payment Models and Population Health workgroups considered several leading examples of clinic to community connections, both the model of care delivery as well as available information on payment systems.

#### **Health Leads<sup>139</sup>**

Health Leads is a not-for-profit that operates in six major US cities and enables healthcare providers to write prescriptions for their patients’ basic needs, such as food and heat. College volunteers work as social work extenders to match incoming patients with available resources. In New York City pediatric asthma patients, urgent care costs for participants in a high-intensity intervention were \$334 less per child and the share of individuals using urgent care services fell by almost two-thirds after Health Leads was implemented.

Health Leads is currently supported by foundations and individual donors and is building a business case for why the healthcare system would benefit by paying for the service.

## **Pathways to a Healthy Bernalillo County Program<sup>140</sup>**

Health navigators assess patients for unmet social needs, identify appropriate referral and intervention “pathways”, and help individuals/families access additional health and social services. Twenty-one currently available pathways encompass medical issues as well as upstream social determinants of health (child care, dental care, domestic violence, adult education/GED, employment, food security, housing, homelessness prevention, legal services, medical debt, etc.)

The referral partner agencies receive payments at three “payment benchmarks”: patient enrollment, service provided, and pathway completed. Currently, funding comes from a partnership among payers and the County Health Department.

### **8.5 Wisconsin Medicaid Priorities**

Wisconsin Medicaid has implemented several initiatives to promote value-based purchasing and quality.

#### **Benefit Plan Redesign**

In 2014, Medicaid simplified benefits design into one benefit package, a Standard Plan. The plan is easier for members, providers, and DHS, and aligns with the ACA Essential Health Benefit by including a more comprehensive set of services for mental health, preventative care, and dental. The goal is to improve healthcare outcomes at no additional cost to state taxpayers and federal government.

#### **HMO Contract Restructuring**

Medicaid moved to a statewide contract for Supplemental Security Income (SSI) and Badgercare Plus HMOs. This allows for better alignment with qualified health plans in the Marketplace. The statewide contract adopted new statewide standards to improve access to care: primary care, mental health and substance abuse, dental, hospital, and urgent care. Specific distance requirements for these provider types were developed, including provider-to-member ratios and issued guidelines on waiting times. The contract also required HMOs to link each member to a primary care provider and health assessments of newly enrolled childless adults and SSI members. This change also expanded the Medical Home program for high-risk pregnant women to additional counties.

#### **Health Homes**

The following are some examples of medical home approaches that Medicaid has explored to improve outcomes for targeted member groups: AIDS/HIV Medical Home; High Risk Pregnancy Medical Home; Care4Kids Medical Home; Complex Care Management/“Super Utilizers” Pilot; Special Needs Program for Children with Medical Complexity; and Behavioral Health Integrated Care. Payment mechanisms vary. Medicaid is specifically exploring reimbursing health home participating providers with value-based payment incentive for care coordination outcomes. In other cases, Medicaid is exploring using HMO contract rates to account for additional services required to manage care for the targeted populations.

## Pay-for-Performance (P4P)

Medicaid pay-for-performance began in 2009 with BadgerCare Plus HMOs, and was expanded to SSI Managed Care in 2011 and hospitals in 2012. Medicaid's P4P targets are selected based on multiple factors such as condition prevalence, difference between Wisconsin and national averages for indicators, and variation across Wisconsin's participating Medicaid HMOs. P4P incentives are withhelds from base rates. The program has yielded positive results, with state averages improving for all measures since the program began.

## 8.6 Medicare

The Payment Models workgroup reviewed current Medicare payment initiatives for hospital and physician services. The workgroup discussed that while current state of most Medicare payment is still fee-for-service, various initiatives are in place that aim to reduce cost and improve quality. The workgroup further noted that US DHHS and CMS have begun to refer to a goal of "smarter spending," not simply reduced per capita cost, consistent with the SIM program's overall goal of population health improvement. While Medicare was not a participant in Wisconsin's SIM design process, the workgroup studied Medicare's current and planned approaches to value-based payment as an important indicator of areas of future focus for providers and payers in Wisconsin.

In January 2015, Medicare announced goals to tie Medicare fee-for-service payment to value through two mechanisms: moving 30 percent of Medicare payments into alternative payment models by the end of 2016 and 50 percent by the end of 2018, and moving 85 percent of current fee-for-service payment into value-based alternatives by 2016, and 90 percent by 2018. The workgroup observed that, in terms of the current SHIP populations, diabetes and depression receive some emphasis in the clinical/physician quality targets. See Appendix 12 for Medicare payment model analysis.

## 8.7 CMS' Next Generation ACO

To address concerns raised in the initial phases of both the Pioneer Program and MSSP, CMS announced the Next Generation ACO in 2015. This model is an important component of the Department of Health and Human Services' (HHS) overall objective to have 85 percent of Medicare FFS payments linked to a quality component by 2016 and 90 percent by 2018.

The workgroup received recommendations from Dr. John Toussaint of the ThedaCare Center for Healthcare Value and Dr. David Krueger of Bellin-ThedaCare Healthcare Partners (Pioneer ACO participants) in designing risk-adjusted global payments through the CMS ACO program<sup>141</sup>:

1. ACOs should be expected to put processes in place **to improve the health** of Medicare enrollees. This will produce savings for the organizations that keep their populations healthy and out of crisis. This will require development of a flexible risk adjustment model that rewards health systems for improvements in care delivery that result in lower-risk scores.
2. The system must provide **flexibility for patient mobility** and properly assign accountability to the system that manages the care in a given time period.



3. **Patient benefits** must also be aligned. Benefits should be aligned using a mechanism such as reference pricing that allows for patient choice and patient responsibility.
4. CMS will need to continue to act as insurer and provide secondary reinsurance in order to **account for catastrophic events** to ACOs.
5. Every ACO should be rewarded for **efficient management** of all patients, including outlier patients.

## 9. GAPS

The Payment Models workgroup identified gaps and root causes between the current state of the overall payment system (including all participants) and the ideal state (attributes). The workgroup further analyzed root causes driving the gaps, and considered what current approaches might work to address the gaps and root causes. A summary of these discussions appears below.

**Table VII.4: Payment Models Gap and Root Cause Analysis.**

Payment-Related Gap	Root Cause(s)	What's Working/What Might Address the Gaps?
Current payment systems don't adequately reimburse for interdisciplinary care teams, PC/BH integration	<ul style="list-style-type: none"> <li>• Not a covered benefit</li> <li>• Need evidence that "something happened" to trigger payment</li> <li>• Model for reimbursement is physicians → Patient contact</li> <li>• Provider credentialing/eligibility to bill</li> <li>• Small volume with certain payer-provider pairs makes payment innovation difficult</li> <li>• Lack of uniform approaches across payers creates free riders and under reimbursement</li> </ul>	<ul style="list-style-type: none"> <li>• Some payers are covering virtual visits and telemedicine</li> <li>• Emergency departments are allowed to bill for consults - can this model be extended?</li> <li>• New Models?</li> <li>• Revenue sharing</li> <li>• Capitated payments between PCP and BH provider groups</li> <li>• Build/share evidence that care coordination, PC/BH integration increases health system productivity</li> <li>• Create other financial incentives for providers to integrate care, build care teams</li> </ul>

Payment-Related Gap	Root Cause(s)	What's Working/What Might Address the Gaps?
Community/social resources aren't well connected to clinical environments, and aren't themselves adequate to	<ul style="list-style-type: none"> <li>• Providers not paid for the time to make referrals</li> <li>• Providers don't employ the staff necessary to make referrals</li> <li>• These assessments and referrals are not</li> </ul>	<ul style="list-style-type: none"> <li>• Work with providers/program implementers to make it clearer what is already covered, and what resources are already available.</li> <li>• Some payers are exploring models</li> </ul>



Payment-Related Gap	Root Cause(s)	What's Working/What Might Address the Gaps?
needs	<p>currently a part of RVU based comp/reimbursement systems<sup>142</sup></p> <ul style="list-style-type: none"> <li>• HMOs are presumed to be doing care coordination</li> <li>• Skepticism that these connections will help, will justify investments; that patients will follow up and follow through</li> <li>• Traditionally this expertise [social needs, how best to address with community resources] is outside of the healthcare system</li> </ul>	<p>re housing, food, social services</p> <ul style="list-style-type: none"> <li>• Some payers/providers are setting up embedded “social services” model - one stop shop/resource</li> <li>• Willingness to pay for successful models</li> </ul>

Payment-Related Gap	Root Cause(s)	What's Working/What Might Address the Gaps?
Provider and payer systems are tied to current revenue levels and mechanisms for generating revenue	<ul style="list-style-type: none"> <li>• Health plans don't want to go to capitated payments again for fear of surrendering marginal revenue</li> <li>• Providers also have disincentives to move to other payment models</li> <li>• There is a perception that success in risk-based reimbursement requires winners and losers. Lack of expertise to understand what fair payment is</li> <li>• Not a lot of push coming from employers/payers (external) for things to be different</li> </ul>	<ul style="list-style-type: none"> <li>• Is capitation 2.0/3.0 possible/desirable?</li> <li>• Better data available</li> <li>• Better risk adjustment</li> <li>• Prospective rate adjustment and quality/value metrics</li> <li>• Global gain share/risk share</li> <li>• Total Cost of Care payment approaches hold promise E.g. Boeing - Global budget - 50/50 gain share</li> <li>• Recent change in Medicaid reimbursement - to consider costs of care management/care team payments</li> </ul>

Transitions to value-based payment will require more sophisticated patient attribution, tracking patients as they move among providers and payers. Patient attribution can be better supported by statewide HIT infrastructure that is currently not in place. See section 12.3, Desired Future State/Transformation Goals, for the SHIP HIT recommendations related to patient matching and attribution.

## 10. PAYMENT RECOMMENDATIONS

## 10.1 Comparison of Alternative Payment Models to Attributes and Recommended Approaches

The payment models workgroup compared the Attributes of a Good Payment Model to five payment models:

1. *Fee-for-Service (FFS) with Pay-for-performance (P4P)*: Payment reform efforts that link a portion of a clinician's or hospital's revenue to certain performance criteria. A basket of quality measures is defined and incorporated into a scorecard. Clinicians can then earn a bonus, or an increase in future earnings, based on their performance on the scorecard.
2. *Care coordination payments*: A fee, typically paid monthly, to coordinate the care and provide related services (e.g. referrals to community programs) for beneficiaries with chronic diseases.
3. *Shared savings*: A payment strategy that offers incentives for providers to reduce healthcare spending for a defined patient population by offering them a percentage of any net savings realized as a result of their efforts.
4. *Chronic disease episode payments* (akin to "bundled payments" for acute care): A package of care and services over a specified timeframe for a particular condition or set of conditions. May be paid in a single payment or payments may be debited against an agreed budget or target.
5. *Global payments*: A payment that covers all or most of the services that a patient needs from all providers during a particular period of time.

The workgroup recommends that implementation consideration be given to **fee-for-service with pay-for-performance and care coordination payments**. While shared savings and global payments both hold promise as more comprehensive value-based payment strategies, the workgroup concluded that well-designed P4P and care coordination payments would best accomplish the objectives of improving health and healthcare outcomes, and reducing costs, for the SHIP populations.

**Table VII.5: Payment Model Attributes.**

Attribute	Supporting Questions to Help Assess a Payment Model Against the Criteria	FFS with Pay-for-performance
1. Provides adequate, sustainable resources for the staff and infrastructure necessary to deliver better practices and achieve desired transformation in health and/or healthcare.	<ul style="list-style-type: none"> <li>• Do payers and providers share a vision of the desired outcomes to be achieved?</li> <li>• Are resources available to support the work required to achieve the desired outcomes??</li> <li>• Are the resources available over time, consistent with the expected duration of the better practices?</li> </ul>	<ul style="list-style-type: none"> <li>• The workgroup determined that P4P programs could be designed to meet this criterion.</li> <li>• This would require tying meaningful payments to the agreed-upon metrics in order to create a pool of adequate resources.</li> <li>• A successful P4P program would also be greatly enhanced by agreement among many payers and providers to focus on the same measures. In the case of the</li> </ul>

		SHIP, there may be advantages to the population-specific focus in that the Transformation Measurement workgroup has taken a careful look at all relevant measures.
2. Aligns incentives and removes barriers for better practices by all those with a stake in the outcome.	<ul style="list-style-type: none"> <li>• Whose participation is needed to achieve the desired result?</li> <li>• Is each organization or sector identified above influenced by the payment approach? Consider: purchasers/initiative sponsor, payer/financer, provider/service organization, patient/consumer, family member, other.</li> <li>• What are the barriers to better outcomes, and how does the payment model support reducing or removing those barriers?</li> </ul>	<ul style="list-style-type: none"> <li>• P4P programs must be accompanied by meaningful incentives for patients to participate in care.</li> </ul>
3. Provides resources that are risk-adjusted as needed and are appropriate given the characteristics of the people being served and the desired outcomes to be achieved.	<ul style="list-style-type: none"> <li>• What is the gap that needs to close between current and desired outcomes, current practice and better practice?</li> <li>• Has the payment/ investment model been adjusted to account for the magnitude of the gap?</li> <li>• What are the unique needs of the population being served?</li> <li>• How does the payment model address those unique needs?</li> </ul>	<ul style="list-style-type: none"> <li>• P4P payments are typically not risk adjusted.</li> </ul>
4. Supports efforts that are expected to realize high-value improvements in health and/or healthcare, thereby making progress toward achieving transformation goals.	<ul style="list-style-type: none"> <li>• What gives participants confidence that the proposed intervention or better practice will facilitate different behaviors and better outcomes?</li> <li>• How does the payment model support successful, sustainable,</li> </ul>	<ul style="list-style-type: none"> <li>• Although there is a general preference for focusing on outcome measures, if P4P moves forward as a payment methodology for the SHIP populations, it may be that tying payments to process measures will be more appropriate.</li> <li>• Specifically, the transformation workgroups have recommended a variety</li> </ul>

	equitable implementation of this intervention or better practice?	<p>of interventions that would be new for many providers (e.g. patient activation strategies, primary care/behavioral health integration), and process measures are appropriate for new work.</p> <ul style="list-style-type: none"> <li>• In addition, many of the desired outcomes for these populations will occur over long periods of time, and providers and payers anticipate patient turn-over before meaningful outcomes can be observed.</li> <li>• As with care coordination payments, prospective attribution is preferred, and would be greatly facilitated by PCP designations.</li> </ul>
5. Contains core attributes that can be applied/implemented by many different organizations across the state, and across many health conditions. There are no obvious barriers to implementation that would require extraordinary efforts. The model is viewed as worthy and achievable.	<ul style="list-style-type: none"> <li>• Can the approach be adopted and implemented by all necessary and desired participants?</li> <li>• Are there regulatory or contractual barriers? How will those be addressed?</li> <li>• Does the approach address a problem in which all necessary and desired stakeholders are interested?</li> <li>• Is there demand for an alternate approach?</li> <li>• Are there any unintended consequences to the change in payment or investment?</li> </ul>	<ul style="list-style-type: none"> <li>• While P4P is certainly feasible across payer types, the workgroup noted that the design of the P4P incentives could vary by payer as well as by coverage type (e.g. Medicaid vs. commercial).</li> </ul>

Attribute	Supporting Questions to Help Assess a Payment Model Against the Criteria	Care Coordination Payments
1. Provides adequate, sustainable resources for the staff and infrastructure necessary to deliver better practices	<ul style="list-style-type: none"> <li>• Do payers and providers share a vision of the desired outcomes to be achieved?</li> <li>• Are resources available to support the work required to</li> </ul>	<ul style="list-style-type: none"> <li>• Overall the workgroup decided that care coordination payments could be a fit for the SHIP populations, the attributes of a good payment model, and the strategies recommended by</li> </ul>

<p>and achieve desired transformation in health and/or healthcare.</p>	<p>achieve the desired outcomes?</p> <ul style="list-style-type: none"> <li>• Are the resources available over time, consistent with the expected duration of the better practices?</li> </ul>	<p>the transformation workgroups.</p> <ul style="list-style-type: none"> <li>• Implementation issues would need to be addressed with self-funded employers, as it has historically been more difficult to include these payments in self-funded plans.</li> <li>• The workgroup recommends exploring several existing CPT codes to cover care coordination (99240), group education sessions (99078), group preventive medicine counseling (99411 and 99412). In addition, Medicare has recently added a chronic care management code (99490). While the workgroup observed that this code is still being used infrequently, the sense was that commercial payers and Medicaid would likely align their reimbursement approaches to that of Medicare.</li> <li>• Implementation efforts should consider standard approaches to how to calculate the baseline service costs intended to be covered by these payments.</li> </ul>
<p>2. Aligns incentives and removes barriers for better practices by all those with a stake in the outcome.</p>	<ul style="list-style-type: none"> <li>• Whose participation is needed to achieve the desired result?</li> <li>• Is each organization or sector identified above influenced by the payment approach? Consider: purchasers/initiative sponsor, payer/financer, provider/service organization, patient/consumer, family member, other.</li> <li>• What are the barriers to better outcomes, and how does the payment model support reducing or removing those barriers?</li> </ul>	<ul style="list-style-type: none"> <li>• Payers want assurance that resources are being directed to “their” patients and to the necessary services – this is a measurement/contract language issue</li> <li>• Patient/consumers need incentives in plan design to follow up on recommended course of action. This is more difficult for the Medicaid program.</li> <li>• We have recognized patient activation as a barrier, so it will be important to adopt patient activation strategies to accompany the care coordination payment.</li> <li>• The workgroup recommends setting overall cost and quality targets so that quality “gates” must be met in order to</li> </ul>

		<p>trigger the care coordination payment.</p> <ul style="list-style-type: none"> <li>• Care coordination payments will be most effectively administered if a PCP is selected prospectively and if payments are made prospectively. This will create implementation issues for both Medicaid and self-funded employers.</li> <li>• Alternatively, accurate attribution is required.</li> <li>• Care coordination payments don't work well to address needs of those who don't seek care, as they are still tied to a service being provided to a presenting patient.</li> </ul>
<p>3. Provides resources that are risk-adjusted as needed and are appropriate given the characteristics of the people being served and the desired outcomes to be achieved.</p>	<ul style="list-style-type: none"> <li>• What is the gap that needs to close between current and desired outcomes, current practice and better practice?</li> <li>• Has the payment/ investment model been adjusted to account for the magnitude of the gap?</li> <li>• What are the unique needs of the population being served?</li> <li>• How does the payment model address those unique needs?</li> </ul>	<ul style="list-style-type: none"> <li>• PMPMs should be risk adjusted: low risk 0 or low \$; medium risk \$\$; high risk \$\$\$.</li> <li>• Implementation considerations will include recommending strategies for risk adjustment.</li> <li>• In the case of patients with depression, valuable lessons can be learned from the DIAMOND project in Minnesota, where a PMPM payment covered care managers' salaries and psychiatrist supervision time.<sup>143</sup></li> </ul>
<p>4. Supports efforts that are expected to realize high-value improvements in health and/or healthcare, thereby making progress toward achieving transformation goals.</p>	<ul style="list-style-type: none"> <li>• What gives participants confidence that the proposed intervention or better practice will facilitate different behaviors and better outcomes?</li> <li>• How does the payment model support successful, sustainable, equitable implementation of this intervention or better practice?</li> </ul>	<ul style="list-style-type: none"> <li>• The workgroup concluded that care coordination payments can support more personalized care that recognizes patients' unique barriers.</li> <li>• Care coordination payments should provide fair reimbursement for the care and supporting activities that promote better outcomes.</li> <li>• If improvements in overall outcomes and reductions in total cost of care can be demonstrated (as has been the case in early PCMH evaluations), this will encourage employers and purchasers to continue CCPs</li> </ul>

		<ul style="list-style-type: none"> <li>The workgroup was not inclined to recommend prescriptive tracking of certain care processes, but did recognize that providers and payers would want to engage in a dialogue and perhaps include contract language to address the purposes of the care coordination payment.</li> </ul>
--	--	---

Attribute	Supporting Questions to Help Assess a Payment Model Against the Criteria	Shared Savings
1. Provides adequate, sustainable resources for the staff and infrastructure necessary to deliver better practices and achieve desired transformation in health and/or healthcare.	<ul style="list-style-type: none"> <li>Do payers and providers share a vision of the desired outcomes to be achieved?</li> <li>Are resources available to support the work required to achieve the desired outcomes??</li> <li>Are the resources available over time, consistent with the expected duration of the better practices?</li> </ul>	<ul style="list-style-type: none"> <li>The workgroup recommended that Shared Savings was not a good fit for SHIP populations because it is not a population-specific approach to payment. It is also not a good fit for the Medicaid program as Medicaid has found that providers have little interest in shared savings approaches for Medicaid members.</li> <li>With that said, the workgroup recognized that shared savings is a common, interim step in alternative payment models.</li> <li>Furthermore, one of the targets of SHIP implementation could be to reduce avoidable ED use by people with diabetes/hypertension and/or depression. In that case, a shared savings strategy, paired with appropriate metrics and care coordination payments, could work well to a) address the needs of SHIP populations, and b) better engage Wisconsin's large primary care groups who tend to be connected to hospital systems.</li> </ul>

<p>2. Aligns incentives and removes barriers for better practices by all those with a stake in the outcome.</p>	<ul style="list-style-type: none"> <li>• Whose participation is needed to achieve the desired result?</li> <li>• Is each organization or sector identified above influenced by the payment approach? Consider: purchasers/initiative sponsor, payer/financer, provider/service organization, patient/consumer, family member, other.</li> <li>• What are the barriers to better outcomes, and how does the payment model support reducing or removing those barriers?</li> </ul>	<ul style="list-style-type: none"> <li>• As providers and payers alike move in the direction of total population management, including shared savings payments, the workgroup recommends that shared savings programs and targets be evaluated as a way to generate resources to finance care coordination payments or specific P4P targets for people with diabetes and hypertension or depression.</li> </ul>
<p>3. Provides resources that are risk-adjusted as needed and are appropriate given the characteristics of the people being served and the desired outcomes to be achieved.</p>	<ul style="list-style-type: none"> <li>• What is the gap that needs to close between current and desired outcomes, current practice and better practice?</li> <li>• Has the payment/ investment model been adjusted to account for the magnitude of the gap?</li> <li>• What are the unique needs of the population being served?</li> <li>• How does the payment model address those unique needs?</li> </ul>	<ul style="list-style-type: none"> <li>• Most shared savings programs seem to meet this criterion based on workgroup members' experience.</li> </ul>
<p>4. Supports efforts that are expected to realize high-value improvements in health and/or healthcare, thereby making progress toward achieving transformation goals.</p>	<ul style="list-style-type: none"> <li>• What gives participants confidence that the proposed intervention or better practice will facilitate different behaviors and better outcomes?</li> <li>• How does the payment model support successful, sustainable, equitable implementation of this intervention or better practice?</li> </ul>	<ul style="list-style-type: none"> <li>• Shared savings overall does not tend to be strategy-specific but does tend to include quality targets. Therefore, the key strategies required to meet those targets, and the resources necessary to do the work, could certainly be part of the shared savings design process.</li> </ul>



Attribute	Supporting Questions to Help Assess a Payment Model Against the Criteria	Chronic Disease Episode Payments
1. Provides adequate, sustainable resources for the staff and infrastructure necessary to deliver better practices and achieve desired transformation in health and/or healthcare.	<ul style="list-style-type: none"> <li>Do payers and providers share a vision of the desired outcomes to be achieved?</li> <li>Are resources available to support the work required to achieve the desired outcomes??</li> <li>Are the resources available over time, consistent with the expected duration of the better practices?</li> </ul>	<ul style="list-style-type: none"> <li>The workgroup does not recommend pursuing the development of chronic disease episode payments, as these are generally viewed to be very complicated to develop and not a good fit for the 2/3 of commercially insured Wisconsin residents who are covered by self-funded plans.</li> </ul>

Attribute	Supporting Questions to Help Assess a Payment Model Against the Criteria	Global Payments
1. Provides adequate, sustainable resources for the staff and infrastructure necessary to deliver better practices and achieve desired transformation in health and/or healthcare.	<ul style="list-style-type: none"> <li>Do payers and providers share a vision of the desired outcomes to be achieved?</li> <li>Are resources available to support the work required to achieve the desired outcomes??</li> <li>Are the resources available over time, consistent with the expected duration of the better practices?</li> </ul>	<ul style="list-style-type: none"> <li>The workgroup recognized that global payments will not work well if the specific implementation focus is just the SHIP populations.</li> <li>With that said, the workgroup did conclude that there are real advantages to global payments for total populations, both in terms of promoting flexibility of service delivery and accountability for total cost of care.</li> </ul>
2. Aligns incentives and removes barriers for better practices by all those with a stake in the outcome.	<ul style="list-style-type: none"> <li>Whose participation is needed to achieve the desired result?</li> <li>Is each organization or sector identified above influenced by the payment approach? Consider: purchasers/initiative sponsor, payer/financer, provider/service organization, patient/consumer, family member, other.</li> </ul>	<ul style="list-style-type: none"> <li>Implementation issues to be considered will include all of the lessons learned from the previous “failures” of capitation, including adequate risk adjustment, adequate consumer information and choice, and transparent cost and quality information to inform purchaser, payer and consumer choice.</li> </ul>

	<ul style="list-style-type: none"> <li>• What are the barriers to better outcomes, and how does the payment model support reducing or removing those barriers?</li> </ul>	
3. Provides resources that are risk-adjusted as needed and are appropriate given the characteristics of the people being served and the desired outcomes to be achieved.	<ul style="list-style-type: none"> <li>• What is the gap that needs to close between current and desired outcomes, current practice and better practice?</li> <li>• Has the payment/ investment model been adjusted to account for the magnitude of the gap?</li> <li>• What are the unique needs of the population being served?</li> <li>• How does the payment model address those unique needs?</li> </ul>	
4. Supports efforts that are expected to realize high-value improvements in health and/or healthcare, thereby making progress toward achieving transformation goals.	<ul style="list-style-type: none"> <li>• What gives participants confidence that the proposed intervention or better practice will facilitate different behaviors and better outcomes?</li> <li>• How does the payment model support successful, sustainable, equitable implementation of this intervention or better practice?</li> </ul>	
5. Contains core attributes that can be applied/ implemented by many different organizations across the state, and across many health conditions. There are no obvious barriers to implementation that would require extraordinary efforts. The model is viewed as	<ul style="list-style-type: none"> <li>• Can the approach be adopted and implemented by all necessary and desired participants?</li> <li>• Are there regulatory or contractual barriers? How will those be addressed?</li> <li>• Does the approach address a problem in which all necessary and desired stakeholders are interested?</li> <li>• Is there demand for an</li> </ul>	<ul style="list-style-type: none"> <li>• Global payments are feasible for fully insured but are still the exception rather than the norm for many provider/payer combinations.</li> <li>• Individual and small group plans (ACA products) are already community rated which should make global payments easier to develop and administer.</li> <li>• Global payments are more difficult to construct for self-funded employers.</li> </ul>

worthy and achievable.	alternate approach? <ul style="list-style-type: none"> <li>• Are there any unintended consequences to the change in payment or investment?</li> </ul>	
------------------------	---	--

## 10.2 Implementation Considerations

The Payment Models workgroup identified a number of considerations that should be addressed as implementation of the SHIP proceeds.

### Benefit Plan Design

Benefit designs should be reviewed to determine whether barriers to best care for people with diabetes and hypertension and/or depression exist and could be removed. Special focus should be given to coverage for patient activation and engagement strategies, e.g. group visits, meetings with health navigators, and chronic disease self-management classes. Care should be taken to understand where the requirements of the Affordable Care Act that preventive services be covered without participant cost sharing attach to the work recommended by the SHIP, and where patients might experience cost-sharing. Wherever possible, patients should have incentives to participate in the care that has been recommended as part of the SHIP. Medicaid has noted challenges with CMS willingness to approve participant incentives, and this should be further explored.

### Self-Funded Employer Groups

The participation of self-funded employer groups is essential to successful SHIP implementation, as the vast majority of Wisconsin’s commercially insured residents are in self-funded plans and this trend is on the increase. The workgroup recommends that implementation partners develop a common “business case” to share with self-funded employers, administrators, and other partners (e.g. analytics firms and brokers). Elements of this business case would include the current costs (healthcare costs, as well as presenteeism and absenteeism) associated with people with diabetes and hypertension or depression, along with the cost-avoidance potential associated with the SHIP recommendations. The workgroup further recommends that implementation partners explore ways to invest up front in the work that needs to be done to achieve the desired cost and quality outcomes, perhaps offsetting those costs against future shared savings or other contractual payments. Self-funded employers should also be encouraged to redirect current investments in disease management to SHIP strategies.

The workgroup noted that the care coordination or P4P payments must be able to run seamlessly through existing claims systems, as employers and administrators with national presence will be unlikely to adopt customized approaches for one state.

### Metrics

A key assumption made by the workgroup was that measures of improvement in health and healthcare outcomes, as well as cost-effectiveness, should be developed and shared across those implementing

aspects of the SHIP. Because of the relative novelty of some of the recommended work (e.g. enhancing connections with community resources) and the diversity of Wisconsin's payer and provider landscape, the workgroup felt that common metrics were essential to supporting successful implementation.

The workgroup further noted that this set of metrics could be a menu from which participating providers and payers would choose through negotiation, but it should be a shorter menu than "all available measures with relevance to diabetes, hypertension and depression."

### **Administrative Feasibility**

*Coding* - Various care management codes exist today, and each of these codes should be considered by those pursuing SHIP implementation. Other administrative considerations include tying certain diagnostic codes to the care management codes, and linking other quality or cost-savings targets to eligibility for payment of care management codes or P4P incentives.

*Timely and Fair Investments* - The workgroup recognized the tension between providers' preference to be paid up front to invest in practice transformation and infrastructure needed to improve care for SHIP populations, as compared to payers' and purchasers' preference to see results before making payments. The workgroup recommends that implementation partners have frank discussions about the desired outcomes, the time and new work required to achieve those outcomes, and develop a realistic set of shared expectations about the investments and time required to realize the desired outcomes. Because claims data are lagged, the workgroup recommends that initial progress monitoring may have to occur based on other data. If the parties agree to evaluate progress periodically and make adjustments as needed, while keeping the desired patient outcomes at the forefront, the workgroup is confident that these solutions can be implemented successfully.

*Risk Adjustment* - The workgroup anticipates complexity around risk adjustment methodologies that may be applied to more robust care coordination payments and recommends that implementation partners explore shared learning around various approaches to risk adjustment so that the best approaches can be chosen and participants understand how various risk adjustment methodologies will affect the analysis.

### **Physician Compensation**

Physician compensation systems should be evaluated by providers implementing the SHIP to ensure that appropriate incentives are in place to support providing the recommended care for SHIP populations. In addition, those implementing the SHIP may choose to target avoidable complications and inappropriate resource use (e.g. ambulatory care sensitive emergency department utilization and hospital admissions). As those targets are developed, physician compensation systems should be evaluated to remove any conflicting signals with other SHIP goals.

### **Medicaid and Wisconsin State Employees**

The workgroup noted that Wisconsin's state government agencies, including its Medicaid and state employee purchasing programs, have an opportunity to lead in SHIP implementation by adopting the components of the plan with relevance for their priority areas of focus and using their health plan contracts to encourage private sector alignment.

### **Medicare**

The workgroup recommends that those supporting SHIP implementation continue to track Medicare's evolving approach to value-based payment to maintain alignment where possible regarding quality targets with relevance to people with diabetes and hypertension or depression. In addition, experience with the relatively new Medicare care coordination code should be tracked, as should hospital incentives with relevance to care that is currently being provided to SHIP populations.

## 11. HEALTH INFORMATION TECHNOLOGY

### 11.1 Executive Summary

Health information technology (health IT)<sup>144</sup> is a necessary tool to support healthcare transformation. Health IT can enable access to information needed to provide better care and realize better outcomes, while eliminating inefficiencies and reducing costs. The State Health Improvement Plan (SHIP) Health IT team<sup>145</sup> had the task of developing a plan to move toward interoperable health IT systems and services that work together to enable appropriate access to timely, accurate, usable information to transform healthcare in Wisconsin. This health IT plan sets out enabling health IT services and activities needed to support the overall transformation goals of the SHIP.

Although many participants across Wisconsin's healthcare continuum have invested in and are making good use of health IT, a key challenge is limited cohesion and coordination, resulting in duplication of efforts, inefficiency, and a lack of interoperability. The Health IT Plan addresses those concerns in multiple ways.<sup>146</sup>

- **Infrastructure: Shared Technology Services**

The Health IT team identified key services that are best offered at a statewide level, with a goal of achieving better information at a lower cost. These services include person identification and matching, a statewide directory of health and human service providers and organizations, electronic notifications, and quality measurement and reporting. The Health IT team identified these services as essential tools for transforming care, regardless of the population being addressed.

- **Infrastructure: Targeted Health IT Services for SHIP Populations**

The Health IT team identified additional services that are adaptable to meet the needs of specific populations to support the goals developed through the work of the SHIP Transformation Workgroups. Telehealth and consumer tools can be used to meet specific needs for targeted populations, such as a population with diabetes and depression in a particular geographic area.

- **Governance**

It is anticipated that health IT governance will be part of overall SHIP governance. At the time of the writing of this plan, discussions are continuing about the next round of decisions around governance. As discussed above in Section I.2 and III.4, a SHIP Leadership Committee will be established.

- **Policies**

The Health IT team reviewed best practices and evolving policy mechanisms that might facilitate the adoption and utilization of the Shared Technology and Targeted Technology services. These policies included alternative payment methodologies, state funding for technical assistance to prioritized providers, and incorporating health IT requirements into contracts. Discussions are continuing about which options would best fit Wisconsin's needs.

- **Technical Assistance**

The Health IT team is proposing several types of technical assistance (TA) for different prioritized providers to meet the SHIP goals. The TA would include (1) TA for EHR adoption and use, particularly for behavioral health and long-term care providers; (2) TA for use of Shared Technology Services; and (3) TA for use of telehealth and consumer tools.

### 11.2 Relationship to SHIP Goals, Strategies and Timing

As discussed above, the transformation workgroups identified two goals for the SHIP:

1. Optimize health and interrupt disease progression
2. Make smarter investments to promote health and healthcare value

The Health IT plan supports these goals and related strategies, as well as interconnecting with the other SHIP enablers: measurement and payment reform.<sup>147</sup> In addition to the overviews in this subsection, further detail on the Health IT Plan elements can be found below in the Infrastructure and Technical Assistance subsections (subsections VII.12 and VII.15). More information on the next steps toward implementation can be found in the Policy – Desired Future State subsection (subsection VII.14.2) and in the Technical Assistance – Implementation Roadmap/ Requirements subsection (subsection VII.15.5).

**Table VII.6: Role of Health IT in SHIP Efforts.**

<b><i>Transformation Strategies</i></b>	<b><i>Transformation Best and Better Practices</i></b>	<b><i>Health IT Plan Elements that Support Transformation Best and Better Practices</i></b>	<b><i>Health IT Relationship with Other Enabling Efforts (Measurement, Payment Reform)</i></b>	<b><i>Next Steps toward Health IT Implementation</i></b>
Improve people's active participation in health and healthcare	<ul style="list-style-type: none"> <li>• Technology-enabled consumer tools</li> <li>• Coordinate clinical care</li> </ul>	<ul style="list-style-type: none"> <li>• Infrastructure – Targeted Technology Services – consumer tools</li> <li>• Technical Assistance to support use of consumer tools</li> <li>• Infrastructure – Shared Technology Services to support better care coordination</li> </ul>	<ul style="list-style-type: none"> <li>• Measuring people's active participation (transformation measurement) will enable better targeting of services. Shared Technology Services (provider and organization directory, person identification and matching services) will enable more accurate measurement and analytics across care settings.</li> </ul>	<ul style="list-style-type: none"> <li>• Establish or designate Wisconsin Center for Technology-enabled Health/ Connected Care (see Section VII.12.3 and VII.15.5)</li> </ul>
Connect clinic and community care	<ul style="list-style-type: none"> <li>• Screening and referral (p102)</li> <li>• Connect clinic and community care (p103-04)</li> </ul>	<ul style="list-style-type: none"> <li>• Infrastructure – Shared Technology Services – provider and organization directory and person identification and matching services, notifications services</li> <li>• </li> </ul>	<ul style="list-style-type: none"> <li>• Health IT Shared Technology Services support improved measurement and analytics. For example, with community service organizations in the statewide provider and organization directory, the directory could provide data for clinic/ community</li> </ul>	<ul style="list-style-type: none"> <li>• Convene Directory Task Force to develop the business and technical requirements</li> <li>• Convene Person Identity Services Task Force to develop the business and technical requirements (see Table VII.14 in Section VII.14.2)</li> </ul>



<b><i>Transformation Strategies</i></b>	<b><i>Transformation Best and Better Practices</i></b>	<b><i>Health IT Plan Elements that Support Transformation Best and Better Practices</i></b>	<b><i>Health IT Relationship with Other Enabling Efforts (Measurement, Payment Reform)</i></b>	<b><i>Next Steps toward Health IT Implementation</i></b>
			connection measurement.	
Expand primary care and behavioral health integration	<ul style="list-style-type: none"> <li>Integrate behavioral health and primary care (p105-106)</li> </ul>	<ul style="list-style-type: none"> <li>Technical Assistance – supporting behavioral health providers to use electronic health records (EHRs) and health information exchange (HIE)</li> <li>Infrastructure – Shared Technology Services – statewide provider and organization directory and person identification and matching services; quality measurement and reporting services</li> </ul>	<ul style="list-style-type: none"> <li>To increase awareness of incentives, health IT technical assistance could highlight payment reforms such as care coordination payments.</li> <li>Payment reforms (Fee-for-Service with Payment for Performance; Care Coordination Payments) will incentivize use of Health IT for care coordination.</li> <li>The measurement workgroup has identified goals for the measurement framework. Quality measurement and reporting services will support these goals.</li> </ul>	<ul style="list-style-type: none"> <li>Establish or designate Wisconsin Center for Technology-enabled Health/ Connected Care</li> <li>Convene Directory Task Force to develop the business and technical requirements for the directory</li> <li>Convene Person Identity Services Task Force to develop the business and technical requirements for Person Identification and Matching Services</li> </ul>

<b><i>Transformation Strategies</i></b>	<b><i>Transformation Best and Better Practices</i></b>	<b><i>Health IT Plan Elements that Support Transformation Best and Better Practices</i></b>	<b><i>Health IT Relationship with Other Enabling Efforts (Measurement, Payment Reform)</i></b>	<b><i>Next Steps toward Health IT Implementation</i></b>
	•		•	•
Reduce disparities linked to poor health and healthcare outcomes.	<ul style="list-style-type: none"> <li>Collect and disseminate health data by race/ethnicity (p107)</li> </ul>	<ul style="list-style-type: none"> <li>Infrastructure – Shared Technology Services – provider and organization directory and person identification and matching services</li> </ul>	<ul style="list-style-type: none"> <li>Health IT supports better measurement and analytics related to disparities.</li> </ul>	<ul style="list-style-type: none"> <li>Convene Directory Task Force to develop the business and technical requirements</li> <li>Convene Person Identity Services Task Force to develop the business and technical requirements</li> </ul>
	<ul style="list-style-type: none"> <li>Health literacy initiatives (p107-108)</li> <li>Telehealth (p111)</li> </ul>	<ul style="list-style-type: none"> <li>Infrastructure – Targeted Technology Services – consumer tools and telehealth</li> <li>Technical Assistance – telehealth and consumer tools</li> </ul>		<ul style="list-style-type: none"> <li>Establish or designate Wisconsin Center for Technology-enabled Health/ Connected Care</li> </ul>

**Table VII.7: Timing for Health IT Activities and Related Efforts.**

	Activity/need	Timing considerations	Dependencies and related work
<b>Governance and Policy Development</b>			
<i>Current</i>	Discussions about SHIP governance direction and next steps; branching paths depending on decisions made	Discussions underway; decisions have not been reached as of the writing of this report	
<i>Potential Path 1</i>	If the SHIP Leadership Committee provides governance, then it incorporates nonprofit organization; sets direction and strategies; establishes processes for its workgroups/ task forces		Agreements on financing (see below); appointment of Task Forces
<i>Potential Path 2</i>	If no SHIP Leadership Committee forms, the State may choose to move forward with elements of Shared Technology Services, perhaps beginning with proof of concept approach to statewide provider directory		Agreements on financing (see below); appointment of Task Forces
<i>Task Forces</i>	Provider Directory Task Force appointed by governing body (Path 1 or Path 2)	Start work as soon as appointed  Order of work:  1. Business and technical requirements and cost estimates (to inform simultaneous work on funding requests and RFPs)	Task Force can't begin work until governing body has been established  Task Force input will be needed to develop funding requests and RFPs  Coordination between task forces will be needed to keep efforts and requirements aligned,

	Activity/need	Timing considerations	Dependencies and related work
		2. Policy recommendations on updating data 3. Recommendations for development of legal agreements on use of services	including requirements for and policies on accessing Shared Technology Services and a potential single sign-on solution
	Person Identity Services Task Force appointed by governing body (Path 1 or Path 2)	Start work as soon as appointed Order of work: <ol style="list-style-type: none"> <li>1. Business and technical requirements and cost estimates (to inform simultaneous work on funding requests and RFPs)</li> <li>2. Policy recommendations on privacy and security; data storage, access and use</li> <li>3. Recommendations for development of legal agreements on use of services</li> </ol>	Task Force can't begin work until governing body has been established  Task Force input will be needed to develop funding requests and RFPs  Coordination between task forces will be needed to keep efforts and requirements aligned, including requirements for and policies on accessing Shared Technology Services and a potential single sign-on solution
<b>Financing</b>			
Convene Medicaid and other payers and end users to reach agreement on	Commitment from Wisconsin's State Medicaid Agency to pursue 90-10 funding	Upon establishment of governance, work simultaneously with Medicaid agency and stakeholders/ end users	Work with governance structure to communicate value propositions for Medicaid
	Commitment from Shared Technology Services users outside Medicaid agency to use and pay their share for		Work with governance structure to communicate value propositions to potential users and obtain

	Activity/need	Timing considerations	Dependencies and related work
financing	services		buy-in
	Develop Implementation Advanced Planning Document (IAPD) funding request for 90-10 federal financial participation (FFP) in development of Shared Technology Services	Work to develop the IAPD will need to occur simultaneously with work on requirements and identification, so the IAPD can be submitted as soon as possible	Commitment of Medicaid and other users of Shared Technology Services  Requirements and cost estimates formulated by Task Forces
	Secure funds for Wisconsin's 10 percent match to secure FFP	Work to secure state matching funds will need to occur simultaneously with work on the IAPD	Commitment of Medicaid agency and other users  Cost estimates formulated by Task Forces
<b>RFP(s) for Shared Technology Services Infrastructure</b>			
	Develop RFP(s) for Shared Technology Services	Work on RFP(s) will need to occur simultaneously with work on IAPD, so the RFP(s) can be issued as soon as possible once funding is secured	Agreement on business and technical requirements for services to be procured, infrastructure financing and sustainability plan with stakeholder agreements
	Issue RFP(s)		CMS approval of funding request and of RFP(s)
	Contract with selected vendors		CMS approval of contracts

## 12. HEALTH IT INFRASTRUCTURE (SHARED TECHNOLOGY SERVICES AND TARGETED HEALTH IT SERVICES FOR SHIP POPULATIONS)

### 12.1 Introduction

In evaluating health IT infrastructure to support Wisconsin's SHIP goals, the Health IT team addressed two types of services: Shared Technology Services and Targeted Health IT Services for SHIP Populations. Shared Technology Services are health IT functionalities that will be used to decrease

burdens currently associated with sending and receiving data and thus enhance care coordination, quality improvement, patient engagement, and cost reduction. In identifying the Shared Technology Services, the Health IT team began with a focus on *what* was needed to support transformation, with the understanding that *who* would provide the services would be determined through one or more requests for proposals (RFPs).

The Shared Technology Services will move from the current state of fragmented health IT services to a more coordinated statewide set of services. These services will provide a statewide source of valid and accurate data on active relationships between providers and the organizations with which they are associated. The services will also link the active care relationships between patients and individual providers, patients and healthcare organizations, and over time, people and community service organizations (consumers of both healthcare and human services).

The Health IT team began its analysis with a focus on the Shared Technology Services that are needed to advance SHIP goals for any population. Not only are the services needed for any population selected through this or a later process, but also as a practical matter, some services would be difficult to limit to a targeted population. Indeed, some service would lose value if limited to a particular population. For example, it would require extra work to limit the data available in the Health and Human Services Provider and Organization Directory service to providers whose current patient panels include some percentage of patients with diabetes and hypertension, and the limitation would make the directory service less useful.

Targeted Health IT Services, on the other hand, will support specific needs of particular populations, as defined by the SHIP transformation workgroups. Such services include consumer tools and tools for virtual care (telehealth) services.

## Principles

The Health IT team began its work on infrastructure with the identification of goals and key principles. The team decided that Wisconsin's health IT infrastructure must be designed and operated in a way that will enable the SHIP transformation goals to be achieved consistently across the state. The health IT services will provide tools to:

- Improve patient safety, quality and outcomes
- Support patient-centered care
- Increase patient engagement
- Enhance communication
- Decrease costs by reducing inefficiencies.

The Health IT team identified the following principles for Shared Technology Services:

1. Health IT is a necessary tool to help enable healthcare transformation
2. Like utility services, the underpinnings of health IT services should be scaled across common community needs with standards that minimize variation

3. Participation in Shared Technology Services is a choice
4. Shared Technology Services should enable cost savings at a statewide level from economies of scale
5. Existing health IT infrastructure should be leveraged where feasible to realize value from previous investments
6. Planning for Shared Technology Services requires thinking ahead in order to meet future needs
7. Shared Technology Services should be built with flexibility and modularity so services are scalable and can expand over time
8. Shared Technology Services should simplify exchange of data and information among disparate systems
9. Shared Technology Services should use industry best-practice architectural standards and protocols
10. Shared Technology Services should provide interconnectivity between existing data systems, healthcare providers and systems, payer organizations and State of Wisconsin systems (public health and others)
11. Efforts should be in place to advocate, promote, align and foster adoption of national standards by all participants; and should leverage standards such Stage 3 meaningful use
12. Decisions should favor “plug and play” options
13. Decisions should minimize needs for custom interfaces and point-to-point connections
14. Decisions should set standards that are achievable stretch goals and will advance some participants without holding back participants who can exceed the standard

## Definitions

An All Payer Claims Database (APCD) is a large-scale database that systematically collects medical claims, pharmacy claims, dental claims (typically, but not always), and eligibility and provider files from private and public payers. APCD systems collect data from existing claims transaction systems used by healthcare providers and payers. The information typically collected in an APCD includes patient demographics, provider codes, and clinical, financial, and utilization data.<sup>148</sup>

Consumer tools encompass a wide variety of technical applications and functionality. Examples include web-based portals (patient portals to view health data and access longitudinal care plans, consumer decision support portals with claims, performance and quality data, and provider directories), patient alerting systems, tools that facilitate provider-patient communication (such as web-based tools, or phone applications/text-messaging). Meaningful use requirements include measures for secure messaging and patient access to view, download or transmit health information.

An electronic health record (EHR) is a digital version of a patient's record. EHRs are real-time, patient-centered records that make information available instantly and securely to authorized users.<sup>149</sup> An alternative definition of EHR is an electronic record of health-related information on an individual that conforms to nationally recognized interoperability standards and that can be created, managed, and

consulted by authorized clinicians and staff across more than one healthcare organization.<sup>150</sup> As discussed below, EHRs used for meaningful use must be certified and must include specific functionalities.

The concept of health information exchange (HIE) can be used as a verb or a noun. When used to describe an action, health information exchange refers to the electronic movement of health-related information among organizations using nationally recognized standards.<sup>151</sup> Other common definitions include (1) the mobilization of healthcare information electronically across organizations within a region, community or hospital system and (2) the capability to electronically move clinical information among disparate healthcare information systems, and maintain the meaning of the information being exchanged.<sup>152</sup> Health information exchange currently occurs in three key forms:<sup>153</sup>

- Directed Exchange: Ability to send and receive secure information electronically between care providers to support coordinated care. Technology examples include point-to-point interfaces (e.g. an ambulatory EHR system to a hospital EHR), Direct secure messaging<sup>154</sup> and secure e-mail,<sup>155</sup> and application program interfaces (APIs).<sup>156</sup>
- Query-based Exchange: Ability for providers to find and/or request information on a patient from other providers.
- Consumer Mediated Exchange: Ability for patients to aggregate and control the use of their health information among providers. Technology examples: personal health records (PHRs)<sup>157</sup> and patient portals<sup>158</sup>

When used as a noun, health information exchange refers to an organization formed to provide services that includes core services focused on data exchange and sharing of patient data across disparate stakeholders at the local, state, regional and national level.<sup>159</sup> Related concepts include a health information (exchange) organization (HIO), an organization that oversees and governs the exchange of health-related information among organizations according to nationally recognized standards.<sup>160</sup> An HIO can take different forms, from a geographically based multi-stakeholder governance organization (a regional health information exchange organization or RHIO) to a contract/business agreement or other structure that codifies decision-making authority.<sup>161</sup>

Interoperability: Ability of two or more systems or components to exchange information and use the information that has been exchanged.<sup>162</sup>

Notifications: A service that enables healthcare providers to receive real-time alerts when a patient has a healthcare encounter. Notifications may leverage Admission, Discharge, and Transfer (ADT) standard, real-time, automatic transactions to indicate when a patient has a healthcare encounter, such as when a patient presents in a hospital. Notifications services can provide additional information beyond ADT notifications and be customized to the needs and preferences of specific end-users, whether the users are traditional providers, long-term care, social services, community-based organizations, or care/case managers. Effective notifications are dependent on reliable, segmented data, and establishing effective patient-provider or patient-entity relationships.



Provider directory: Supports management of healthcare provider information, both individual and organizational, in a searchable directory structure.<sup>163</sup>

Quality Reporting Services: Facilitate the submission of measures data for quality management and improvement with metrics at a provider, organizational, plan, or population level. Increasingly, quality reporting is tied to provider reimbursement arrangements and is an integral part of monitoring successes, failures, and progress at any level of the healthcare continuum.

Telehealth: Definitions of telehealth vary. Under a Wisconsin statute, telehealth means a service provided from a remote location using a combination of interactive video, audio, and externally acquired images through a networking environment between an individual at an originating site and a provider at a remote location with the service being of sufficient audio and visual fidelity and clarity as to be functionally equivalent to face-to-face contact. ‘Telehealth’ does not include telephone conversations or Internet-based communications between providers or between providers and individuals.<sup>164</sup> Alternatively, the National Telehealth Policy Resource Center, Center for Connected Health Policy (CCHP) defines telehealth to encompass “a broad variety of technologies and tactics to deliver virtual medical, health, and education services. Telehealth is not a specific service, but a collection of means to enhance care and education delivery.”<sup>165</sup> CCHP identifies these common categories of telehealth applications:

- Real-time audio video conferencing (synchronous): Virtually connects patients with practitioners (sometimes referred to as virtual visits) and may serve as an alternative to an in-person visit.
- Store-and-forward: Uses non-real-time communication, including email or other electronic transmission, to send clinical information, such as an x-ray, to healthcare practitioners for clinical review at a convenient time offline.
- Remote monitoring: Collects and transmits data on specific health indicators, such as blood pressure or heart rate, to healthcare practitioners for tracking purposes.
- Mobile health (mHealth): Uses mobile communications devices, such as smartphones, for health services and information.

Some services could be characterized as either notifications or consumer tools (e.g., a text message to a person with asthma when pollen counts are high). For purposes of this Health IT Plan, *notifications* are messages about a change in a person’s health status. *Consumer tools* are health IT tools/services a person may choose to use to manage his/her health. The same kind of overlap in terminology occurs when discussing consumer tools and remote monitoring, depending on which user is looking at the data. For example, a smart scale might be a consumer tool from the patient’s perspective and also might serve as a remote monitoring tool from a provider’s perspective, when the provider receives patient-generated data.

When interacting with the healthcare system, an individual may wear multiple hats, and finding the right term can be a challenge. The Health IT Plan takes this approach:

- Consumer refers to an individual making some kind of purchasing decision, for example, looking for a provider, comparing coverage options, or purchasing a healthcare app for a smartphone.
- Patient refers to an individual receiving care.
- The more generic terms person or individual are used when someone could be in either a consumer or a patient role.

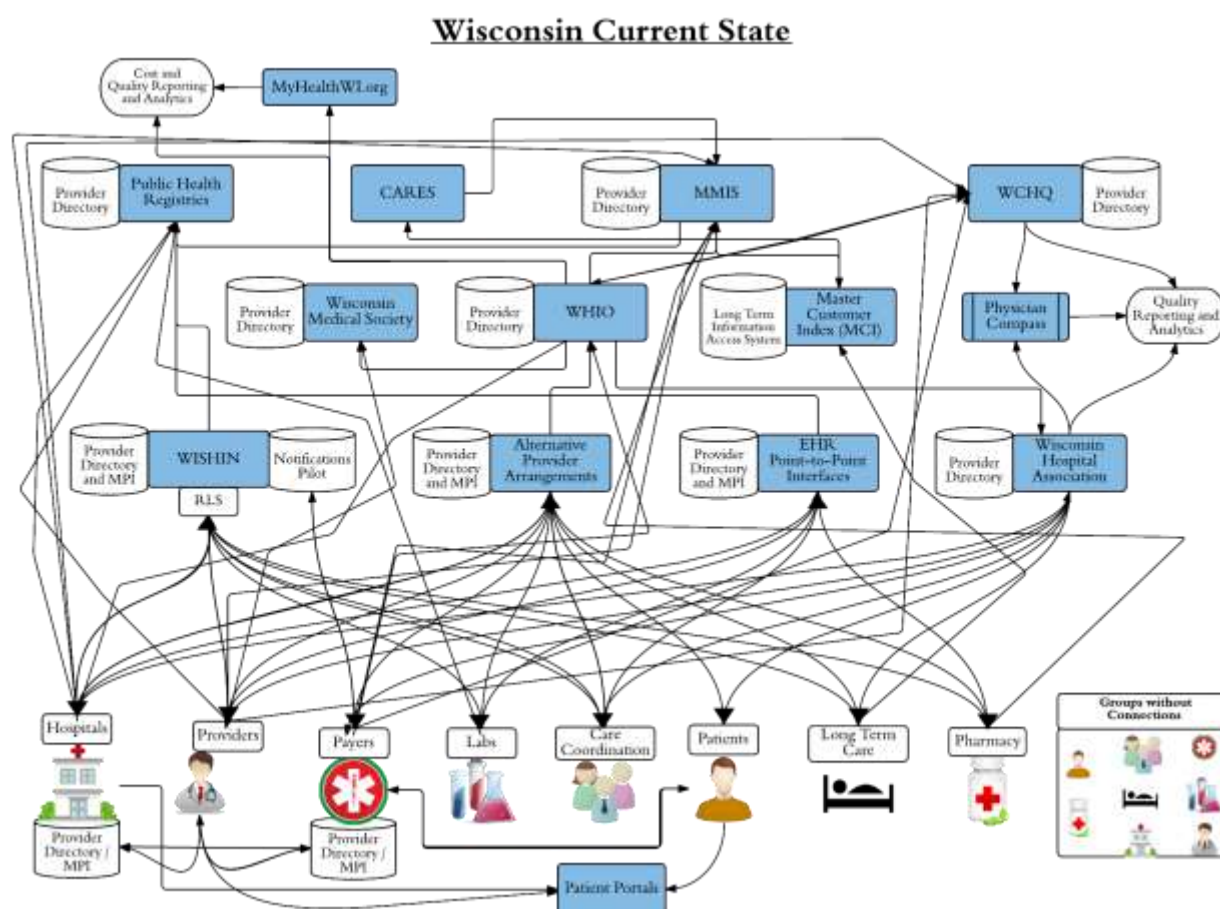
## 12.2 Fact Finding / Current State

Many participants across Wisconsin's healthcare continuum have made significant investments in health IT. Nonetheless, Wisconsin has gaps in the current health IT infrastructure at the organization and state levels. While Wisconsin ranks among the top states for physician EHR adoption,<sup>166</sup> there is limited cohesion and coordination, leading to duplication, inefficiency, and a lack of interoperability. In interviews, stakeholders remarked on gaps between technology "haves" and "have-nots." Interviewees noted that although hospitals and large organizations are fairly well covered, smaller clinics have been slower to use EHRs and HIE, and behavioral health providers have faced challenges from the lack of federal incentive funds to offset costs of EHR adoption, as well as concerns about data sharing restrictions imposed by 42 CFR Part 2.<sup>167</sup> Prior to 2014, additional barriers to data sharing existed under state law. In 2014, Wisconsin's Mental Health Care Coordination bill removed those additional barriers and aligned state law to HIPAA.<sup>168</sup> Because that change is relatively recent, some providers may benefit from technical assistance related to this statute, as well as broader issues related to privacy and security, so they understand current legal requirements and can share information as permitted by applicable laws. For further discussion, please see the technical assistance discussion in Section VII.15.

Stakeholder interviews pointed to concerns that, although the penetration of data collection is high, the ability to exchange data within or between systems is challenging. Wisconsin Statewide Health Information Network (WISHIN), Wisconsin Health Information Organization (WHIO), Wisconsin Hospital Association (WHA) and Wisconsin Collaborative for Healthcare Quality (WCHQ) are all working on health IT projects, but each has only slices of the data necessary for the transformation of Wisconsin's healthcare system. Currently, data contributors have to manage multiple connections in order to submit and receive data. Because WISHIN, WHIO, Wisconsin Hospital Association Information Center (WHAIC), and WCHQ are governed by boards with overlapping membership, there is substantial insight into each other's operations, and also concerns about divided resources and sustainability. Stakeholders also noted the difficulties of establishing the value proposition for statewide HIE when many providers in integrated delivery systems can share information internally, and the systems may not perceive that they will realize a significant return on investment in additional information exchange.

The diagram below represents the current state of health IT services in Wisconsin. It depicts some, though not all, of the connections that healthcare organizations currently must make in order to share data for clinical or administrative purposes. This diagram is not meant to represent the volume of data

transactions to or from any source, and it does not attempt to illustrate the variety of data standards that are used in the technology of each organization. In the current state, multiple organizations maintain uncoordinated provider directories and master patient indexes (MPIs).



**Figure VII.4: Wisconsin’s Current State.**

## National Context

Across the nation, health IT has been strongly influenced by federal initiatives. The Health Information Technology for Economic and Clinical Health (HITECH) Act, enacted as part of the American Recovery and Reinvestment Act of 2009 (ARRA) stimulus legislation, has greatly affected health IT adoption and use.

- The Medicare and Medicaid Electronic Health Record (EHR) Incentive Programs are commonly referred to as **meaningful use**. Under these programs, certain hospitals and providers are eligible for incentives to adopt and use EHRs. In addition, Medicare hospitals and providers are subject to payment reductions for failure to become meaningful users. The Centers for

Medicare and Medicaid Services (CMS) sets the requirements for meaningful use, which progress in stages over time, with Stage 1 focused on data capturing and sharing; Stage 2 focused on advanced clinical processes; and Stage 3 focused on improved outcomes. To be meaningful users, hospitals and providers must attest that they met all of the CMS requirements and did so using Certified EHR Technology (CEHRT).<sup>169</sup> The certification process is meant to ensure that an EHR has specified technological capabilities and functionalities. The Office of the National Coordinator for Health IT (ONC) sets standards with which EHR vendors must comply for their products to be recognized as CEHRT.<sup>170</sup>

- **Regional Extension Centers** were funded in every state to provide technical assistance to primary care providers with adoption and meaningful use of CEHRT.<sup>171</sup>
- The **State Health Information Exchange (HIE) Cooperative Agreement Program**, overseen by ONC, supported HIE development in every state.<sup>172</sup> Grants were awarded in early 2010, as a four-year program.

## EHR Adoption and Meaningful Use

Overall, Wisconsin has a high adoption rate of certified EHR technology by physicians. As of January 2016, Wisconsin had 10,224 physicians participating in either the Medicare (7,789) or the Medicaid (2,435) EHR incentive program. All but 12 of these physicians are certified Medicaid providers. Based on this EHR incentive program data, at least 69% of the 14,735<sup>173</sup> physicians practicing in Wisconsin have adopted and are using certified EHR technology (CEHRT). This estimate of the adoption rate does not account for physicians who use CEHRT but are not participating or eligible to participate in the EHR incentive program, such as hospital-based physicians, or those who use EHR technology that might not be certified<sup>174</sup>; thus, overall EHR adoption rates may well be much higher.

At the close of the Medicaid EHR Incentive Program Year 2014 in August 2015, all of Wisconsin eligible hospitals—including acute care, critical access, and children’s hospitals—had attested to adoption of CEHRT. Of Wisconsin’s 125 eligible hospitals, 56 had attested to Stage 2 of meaningful use, 67 had attested to Stage 1, and the remaining 2 had attested to adopting, implementing, or upgrading to CEHRT. Eligible hospitals chose a variety of CEHRT vendors, with 15 different vendors represented in total, but five vendors accounted for 76 percent of the market share in Wisconsin for eligible hospitals. Wisconsin eligible professionals have high CEHRT adoption rates and are making progress toward achieving meaningful use. At the close of Program Year 2014 in August 2015, 3,025 Wisconsin eligible professionals had attested to Stage 2 of meaningful use, 6,411 had attested to Stage 1, and 1,178 had attested to adopting, implementing, or upgrading to CEHRT. Eligible professionals attesting to the EHR Incentive Programs have used 97 different CEHRT vendors; however, 90 of those vendors have less than 1 percent of the vendor market share. Almost 88 percent of Wisconsin eligible professionals participating in the EHR Incentive Programs are using one of the top five EHR vendors for eligible professionals in Wisconsin.

Not all providers are eligible to participate in the EHR Incentive Programs. Many behavioral healthcare providers and long term care providers are ineligible. To understand the needs of these providers, the SHIP Health IT workgroup distributed a survey in June 2015 to behavioral health (BH) and long-term care (LTC) providers, including community-based providers and human services organizations. More than 50 percent of survey respondents reported using an EHR, and the rate of adoption varied depending upon the provider organization type.<sup>175</sup> Of the respondents who identified as community-based service providers and individual practitioners, a majority reported that they do not use EHRs. However, among both BH and LTC survey respondents, community mental health centers, county human service divisions, and hospitals/health systems report adopting EHRs and having used them for more than three years. Among the survey respondents who had not adopted an EHR, the top reason cited was the cost to implement and maintain an EHR. Among county behavioral health departments, provider resistance was frequently cited as another key reason for non-adoption, and both staff training and development were cited as key challenges for both BH and LTC providers.

Based upon the survey findings, a majority of BH providers in Wisconsin currently do not use HIE, although EHR adoption is correlated with higher rates of HIE adoption; specifically, 15 percent of BH survey respondents reported that they use HIE, but of the BH survey respondents who reported having adopted an EHR, 18 percent reported using HIE. Notably, while HIE is not the key mechanism by which information is being shared, BH providers are sharing information outside of their organizations. In response to a question about the methods they use to share consumer clinical information, nearly 60 percent of survey respondents identified paper-based charts as the primary method. Similar to the responses received from BH providers, LTC providers are also sharing information outside of their organizations, but they are not using HIE. Nearly 69 percent of long term care providers reported using paper-based charts, including 60 percent of EHR users.

In both BH and LTC settings, the rankings and types of information shared outside of an organization do not vary significantly between EHR adopters and non-adopters; however, the type of information desired by providers does vary between settings. More than 90 percent of all providers report using a standalone fax machine to send individual clinical data. Approximately 65 percent of LTC providers report wanting BH provider notes. Home environment information and social data are top elements that providers would like to access in order to improve care. Conversely, BH providers reported wanting more clinical-type data, including clinical/diagnostic histories and current medication records. All respondents (both BH and LTC) indicated hospitals and pharmacies were the most important exchange partners.

### **Electronic Exchange of Health Information**

Currently, the exchange of health data occurs in various ways. EHR vendors may provide exchange services for their customers. For example, users of Epic's EHR products often use its Care Everywhere functionality to exchange information with other Epic users. Exchange of data also can occur through point-to-point connections, such as interfaces that enable orders and results sharing between a hospital and a community practice. As discussed in more detail below, the Wisconsin Statewide Health Information Network (WISHIN) connects physicians, clinics, hospitals, pharmacies, and clinical labs

across Wisconsin. Among its services, WISHIN offers Direct messaging, as well as a query-based exchange service called WISHIN Pulse.

### **Electronic Prescribing**

Wisconsin ranked fifth among the states for the percentage of physicians e-prescribing through an EHR, as of April 2014.<sup>176</sup> Based upon data from Surescripts posted to HealthIT.gov as of April 2014, Wisconsin has 14,179 total e-prescribers, 13,713 of whom are prescribing through an EHR and 353 are using a stand-alone system. In the month of April 2014, Surescripts processed 268,782 medication history requests, with 198,265 responses provided. Ninety-seven percent of Wisconsin retail community pharmacies have the ability to receive e-prescriptions. When it comes to the e-prescribing of controlled substances, the levels are much lower, with only 69.9 percent of pharmacies being able to accept e-prescriptions of controlled substances and only 1.3 percent of providers being able to e-prescribe controlled substances. This can in large part be attributed to the additional certification requirements of EHRs by the Drug Enforcement Agency (DEA) to transmit e-prescriptions for controlled substances.<sup>177</sup>

### **Public Health Reporting**

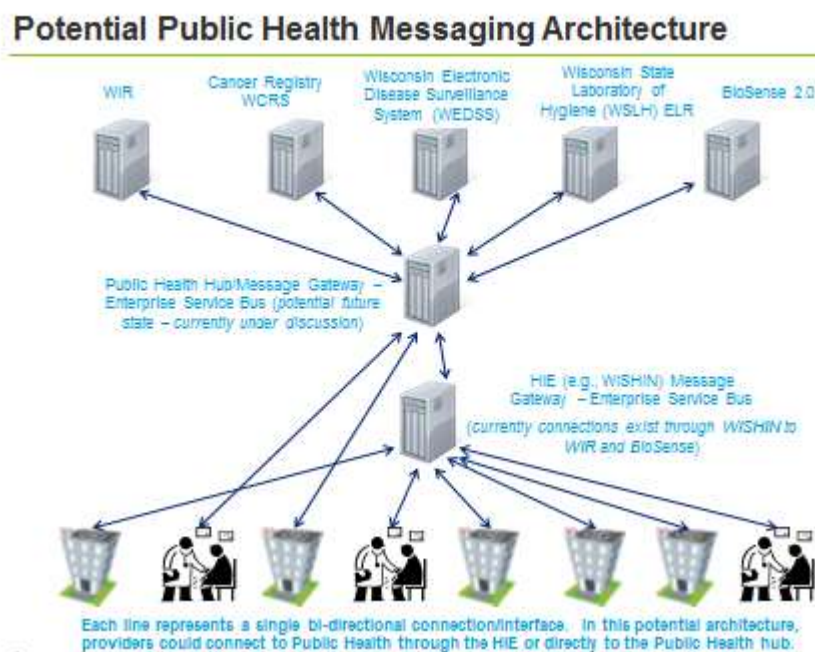
The State of Wisconsin currently has four public health registries to which providers in the state are expected to transmit data in electronic format, in keeping with the public health measure requirements of the Medicare and Medicaid EHR Incentive Program. These include:

- Wisconsin Immunization Registry (WIR) (through individual connections to WIR or through WISHIN)
- Wisconsin Cancer Reporting System (WCRS)
- Reportable Electronic Laboratory Results (ELR) – through the State Lab of Hygiene
- Syndromic Surveillance – to BioSense (through individual connections to BioSense or through WISHIN)

Providers must register their intent to submit data to the Division of Public Health and begin the process to onboard with the above entities using the Public Health Registration for Electronic Data Submission System (PHREDS). PHREDS tracks providers' progress in onboarding and provides a centralized mechanism for the Division of Public Health to manage and prioritize the work to establish the connections needed for the data transfers. Although PHREDS was established primarily in response to the increased public health administrative requirements associated with Stage 2 meaningful use, it is used to manage all providers, not just those participating in the Medicare and Medicaid EHR Incentive Programs.

Currently, the Division of Public Health is in the planning phase for a new messaging architecture that will support these registries, as well as others used in public health. Wisconsin's Medicaid EHR Incentive Program is working with the Department of Public Health and seeking opportunities to

leverage 90-10 federal financial participation for this work. The timing of this work has not yet been determined. The diagram below depicts a potential architecture that is currently under discussion.



**Figure VII.5: Targeted Health IT Services for SHIP Populations.**

The Health IT team considered telehealth and consumer-facing tools as means to advance SHIP goals. Although initiatives are underway, a complete picture of the current landscape of telehealth and consumer tools in Wisconsin is hard to capture. For telehealth, Wisconsin's existing efforts often involve a system or hospital launching a telehealth program and coordinating with those entities involved in that particular program as partners or affiliates. A recent tele-behavioral health project at Rural Wisconsin Health Cooperative (RWHC) instead uses a model that targets providers who are not connected to one of the existing systems. In addition, the Wisconsin Hospital Association (WHA) has recently formed a telehealth task force.<sup>178</sup> As for consumer tools, anecdotal reports suggest that sometimes a health system may suggest specific consumer tools to its patients. Although Wisconsin-specific survey information on the consumer-facing tools landscape is unavailable, national survey data provides useful insights into the current state.

### ***Telehealth***

Initially conceived of as a support for rural populations, telehealth now is recognized as a tool that can support both rural and urban populations. Many types of services can be provided via telehealth; for SHIP populations, for example, telehealth-provided services could include diabetes management, psychiatry, social worker therapy, nephrology, and cardiology, among other possibilities. By bringing services to the patient, telehealth can make it easier for patients to access

the care they need. In addition, although telehealth does not increase provider capacity in a significant way, it can provide advantages with workforce recruitment in shortage areas, since providers do not need to relocate.<sup>179</sup>

The technology needed to provide telehealth services, such as video equipment and secure systems, is evolving quickly. The number of options is increasing and becoming easier and less expensive to deploy. The areas of need to enable the use of telehealth are also changing. At the same time, there are gaps in data cohesion, with variations in the degree to which patient data from telehealth visits is integrated with data from encounters with other members of the patient care team.<sup>180</sup>

The use of telehealth appears to be growing rapidly. One national survey indicates that, in 2013, 52 percent of hospitals reported using telehealth, with another 10 percent beginning to implement telehealth services.<sup>181</sup> Increasingly, health plans and employers across the nation are seeking on-line care options for their members and employees. In a 2014 survey of companies with 1,000 or more employees, 22 percent of employers reported offering telemedicine consultation services, with an additional 37 percent planning to do so in 2015, and another 34 percent considering doing so by 2017.<sup>182</sup> However, payment models and licensing requirements are not necessarily keeping pace with the technology opportunities and because of the rapid changes in the field, the needs are also in flux.

Although comprehensive information on the current state of telehealth in Wisconsin is somewhat dated, surveys suggest a strong interest in telehealth. A July 2009 RWHC report found examples of telehealth being used in Wisconsin for almost every area of patient care. Many hospitals used electronic intensive care unit (ICU), tele-radiology, and remote patient monitoring, particularly for home healthcare. Respondents to the RWHC survey found telehealth helpful in addressing workforce needs, for example, avoiding difficulties in recruiting specialists to remote areas. Most services discussed in the report had started with grant funding for infrastructure and enterprise funding, and most respondents identified a need for further grant funding to expand services. Other challenges identified in the report included infrastructure costs, difficulties with reimbursement, a need for effective change leaders, a need for staff to be comfortable using equipment and helping patients become comfortable with the technology, and competing priorities within the healthcare system.<sup>183</sup>

A subsequent survey of Wisconsin physicians found interest in expanding telehealth services. A majority of survey respondents who lacked access to telehealth expressed interest in gaining access. The survey authors concluded that the growth of telehealth would be likely to involve both new programs and optimization of existing efforts. The authors suggested the need to supplement market efforts with “a collaborative approach between the state and regional healthcare networks to identify resources, needs, and gaps to appropriately implement telemedicine programs and state and national healthcare reforms.”<sup>184</sup>



Currently, Wisconsin's Department of Health Services does not have staff assigned to telehealth, and no one is accountable for cross-agency coordination on telehealth issues. As a result, there is a lack of alignment across agencies to address evolving telehealth practice. For example, as discussed in greater detail below in the gap analysis subsection VII.12.4, a rule recently proposed by the Wisconsin Medical Board creates a disconnect between licensure requirements and Medicaid reimbursement policies. Several Health IT Workgroup members expressed strong concerns that the proposed rule creates artificial barriers to access to care via telehealth for patients that is not grounded in scientific evidence.

### ***Consumer Tools***

Although it is difficult to gauge Wisconsinites' use of consumer tools, many tools are available to consumers today. National data indicate that in 2013, roughly 4 in 10 individuals used health IT in some way, such as emailing or texting a healthcare provider, reviewing test results online, or using an app.<sup>185</sup> Usage patterns related to these tools suggest opportunities to address healthcare disparities. Although individuals' online access to their medical information varied by income and education, it did not vary by age, race or setting. Once individuals gained online access, use of online records largely did not vary across individuals. Individuals with providers who used EHRs had higher rates of online access and usage of certain types of health IT.<sup>186</sup> Moreover, people of color and low-income populations are rapidly adopting mobile technology and are increasingly using mobile tools to access the Internet.<sup>187</sup>

Although health-related apps are widely available, individuals often have difficulty finding apps that meet their needs. In a 2015 report, the IMS Institute for Healthcare Informatics counted over 165,000 available mHealth apps, over 90 percent of which are free; actual downloads, however, were very concentrated, with just 36 apps accounting for almost half of all downloads.<sup>188</sup> A June 2015 nationwide survey of mobile phone users found that about 58 percent of respondents had downloaded a health-related app (most commonly a fitness or nutrition app) and about 42 percent of those respondents had downloaded more than five.<sup>189</sup> A major theme in open-ended comments was that current apps do not provide sufficiently specific and personalized recommendations.<sup>190</sup>

The survey suggests that consumers may need, but not receive, assistance in finding useful apps that are grounded in evidence-based medicine or practice. Many survey respondents were unaware of existing apps designed to offer desired functionalities. Moreover, health apps often are designed without input from healthcare providers and do not reflect medical evidence. In a review of physical activity apps, none of the apps provided evidence-based guidelines for aerobic activity. The survey authors observed that many users appear to have difficulty sorting through the array of apps and that consumers might benefit from "refereed clearinghouses that could help consumers evaluate features and make sense of available apps." Only 20 percent of the respondents, however, reported that a doctor recommended an app to them.<sup>191</sup> That survey response is consistent with anecdotal accounts suggesting that some larger health systems in Wisconsin may already be recommending consumer tools to patients, but that the practice is not widespread and that providers generally lack information to make recommendations about apps.

One promising trend in consumer tools is the OpenNotes initiative, a nationwide effort that includes Wisconsin participants. Providers participating in OpenNotes give their patients access to visit notes.<sup>192</sup> Patients participating in OpenNotes report experiencing a greater sense of control and understanding of their medical issues, as well as better recall of their care plans and better preparation for future visits.<sup>193</sup> One recent study found that participation in OpenNotes increased rates of medication adherence among adults taking medications to control cholesterol or hypertension.<sup>194</sup>

Text messaging, particularly when the content of the messages is tailored to the message recipient, has been shown to be a useful tool for improving self-management of health conditions.<sup>195</sup> An environmental scan concluded, “A substantial body of research has shown that health text messaging programs can bring about behavior change to improve short-term smoking cessation outcomes as well as short-term diabetes management and clinical outcomes (increasing frequency of blood glucose monitoring and reducing HbA1c levels). Research has also shown that text messaging improves treatment compliance, including both medication adherence and appointment attendance.”

### **Research: Health IT in Other Parts of the Nation**

The Health IT team received information from ONC and from other states. Through ONC technical assistance, Erica Galvez presented on the draft Shared Nationwide Interoperability Roadmap in May, 2015. Since then the Roadmap has been finalized and released.<sup>196</sup> Interoperability refers to “the ability of a system to exchange electronic health information with and use electronic health information from other systems without special effort on the part of the user.”

The roadmap underscores the need for information to flow inside and outside the care delivery system to support health. Many interoperability functions are required to support a learning health system. We should strive to have a complete set of technical standards to support those functions, but no more than needed. To do so, it is recommended to focus on the best available standards for each function or purpose. Data standardization, in data format and definitions, is needed for data to be useful in an interoperable health IT architecture.

The Health IT team also heard from other states.

- In **Michigan**, MiHIN is a network of networks for sharing health information statewide. MiHIN connects 27 Qualified Organizations (QOs) that have met all applicable requirements through a rigorous vetting process. MiHIN services are built around use cases, such as statewide Admit, Discharge, Transfer (ADT) notification services and statewide medication reconciliation services. Each use case may have different access restrictions, rules for data use, charges, and technical requirements. The MiHIN services underlying the use cases include a master person index, statewide health provider directory, identity management, and patient-provider attribution. MiHIN does not store data beyond the master data for the provider directory, routing, and preferences.

- In **Maine**, HealthInfoNet operates the statewide HIE. The data categories managed within the HIE include patient identifier and demographics, including insurer; encounter history; laboratory and microbiology results; radiology reports; adverse reactions/allergies; prescription medication history (claim/fill or incomplete); diagnosis/conditions/problems (primary and secondary); immunizations; vital signs; dictated/transcribed documents; and continuity of care documents (CCD). HealthInfoNet has a central data repository that providers can query for patient information. Other services include public health reporting (electronic lab reporting, immunizations, syndromic surveillance), real-time patient encounter notifications, and reporting and analytics. Maine is using State Innovation Model (SIM) funding to support broader connections to behavioral health, Medicaid analytics, and expansion of patient portal services.
- In **Kansas**, the Kansas Health Information Network (KHIN) serves as the state designated HIE. As of June 2015 there were over two million unique patients in the KHIN Exchange, with over five million available for query. Over 1,230 ambulatory clinics and hospitals are KHIN members, with over 600 live and in production. KHIN's HIE product lines in 2015 include Secure Clinical Messaging using Direct, Query Based Exchange, full HIE support with query functionality, web-based access, image exchange, personal health record, State level interfaces (immunizations, syndromic surveillance, reportable diseases, cancer registry and infectious disease registry,) and alerts and data extracts.
- **Rhode Island** shared its experience with options for quality reporting, measurement and feedback infrastructure to support healthcare transformation. Rhode Island had one of the first multi-payer Patient Centered Medical Home (PCMH) demonstration projects starting in 2008. Rhode Island has also received a Beacon Grant, participated in the Trailblazer Initiative, and is a SIM Model Design and Model Test state. The state issued a Request for Information (RFI) in 2014 that focused on considerations, pros/cons, possible approaches, etc. to creating a quality measurement, reporting and feedback system and received 17 responses. Rhode Island is now forming a measurement harmonization workgroup and presenting the concept of building a quality measurement, reporting and feedback system and infrastructure to the SIM Steering Committee to seek approval, and hopes to move forward with the RFP process.

## Wisconsin Organizations Currently Providing Health IT Services

**Wisconsin Statewide Health Information Network (WISHIN)**, the state-designated entity (SDE) for health information exchange (HIE), is a statewide health information network to connect physicians, clinics, hospitals, pharmacies, and clinical labs across Wisconsin.<sup>197</sup> Currently 1,107 facilities are registered with WISHIN. WISHIN offers multiple services. It offers secure clinical messaging using Direct through WISHIN Direct+. Within the 1,107 customer sites using WISHIN Direct+, there are over 6,318 Direct addresses issued. WISHIN Pulse is a query-based exchange service that gives healthcare providers secure access to their patients' medical information on

demand. WISHIN reports that end users began using the system in substantial numbers during 2015. Through December 2015, users cumulatively accessed 103,865 patient records pertaining to 11,611 patients. Additional end-user adoption is expected throughout 2016. For public health reporting, WISHIN enables automated reporting of immunizations to the Wisconsin Immunization Registry; has just completed a pilot with the Pediatric and Young Adult Cancer registry; and enables automated reporting of syndromic surveillance data to BioSense -- more than 84 million messages cumulatively. WISHIN also makes available a notification service (Patient Activity Report) to payers and clinics to alert them when a member/patient has a hospital encounter.

The **Wisconsin Health Information Organization (WHIO)** is a voluntary partnership of 21 providers, payers, purchasers and State agencies (Department of Health Services and Wisconsin Department of Employee Trust Funds). WHIO maintains a central repository for healthcare claims data that provides for tracking, analysis, and measurement of risk-adjusted episodes of care. The information collected is used to determine the value of care based on quality-process measures and cost over time. The data are used by member organizations to generate comparative performance reports for providers, evaluate population health, and perform additional analysis on the delivery of healthcare. WHIO collects data from payers across the state; it does not currently collect data from Third Party Administrators in Wisconsin.

**Wisconsin Hospital Association Information Center (WHAIC)** collects, analyzes and disseminates complete, accurate and timely data and reports about charges, utilization, quality, and efficiency provided by Wisconsin hospitals, ambulatory surgery centers, and other healthcare providers.

The **Wisconsin Collaborative for Healthcare Quality (WCHQ)** is a voluntary consortium of organizations learning and working together to improve the quality and cost-effectiveness of healthcare for the people of Wisconsin through the public reporting of comparative performance information. WCHQ uses two processes to collect data on an “all-payer” basis from its participants. The first process is an internal process where WCHQ collects aggregate performance results directly from providers. The second process involves a repository-based submission (RBS) to WCHQ from its participants. Data files (patient-level administration and clinical) are securely transferred to WCHQ. Fifty percent (50%) of the physicians and sixty percent (60%) of the primary care physicians in Wisconsin are represented in WCHQ. The RBS tool meets the Centers for Medicare and Medicaid Services’ requirements as an approved registry for the Physician Quality Reporting System (PQRS). The WCHQ submits participants’ PQRS data to CMS.

**Physician Compass** was founded by the WCHQ and WHA as a healthcare data reporting company with the mission to guide providers through submission of healthcare data, starting with PQRS data.

**Table VII.8: Summary of Current State of Shared Services.**

Shared Service	Description	Wisconsin Current State
----------------	-------------	-------------------------

Shared Service	Description	Wisconsin Current State
Patient Identification and Matching	Process of successfully linking data on a specific individual collected by one source with data about that individual collected by another source; for example, when a primary care provider sends a summary of care about a patient to a specialist and the specialist matches the summary to an existing patient record.	<p>There is no centralized patient identification and matching service being used in Wisconsin.</p> <p>Individual organizations manage their own processes. The Wisconsin Department of Health Services (DHS) maintains a Master Client Index (MCI) that performs many of these functions. The MCI is used by multiple state programs.</p>
Provider Directory	A maintained index of information about providers. The information may include provider's full name, physical location of practice site(s), secure messaging information, credentials, offered services, specialties, patient attribution to the provider, and provider attribution to a clinic, health system, health plan and payer.	<p>There is no centralized provider directory service being used in Wisconsin. Each organization manages its own provider directories with varying information being captured.</p>
Notification Services	<p>Notifications may leverage ADT (Admit, Discharge, and Transfer) feeds to inform a patient's care team when the patient is seen in a hospital or emergency department.</p> <p>Notifications services can provide additional information beyond ADT notifications and be customized to the needs and preferences of specific end-users, whether the users are traditional providers, long-term care, social services, community-based organizations, or care/case managers.</p>	<p>There are no centralized notification services being used in Wisconsin.</p> <p>WISHIN has begun to offer some Notification Services to Managed Care Organizations in the form of a daily patient activity report. WISHIN's roadmap is to make real-time alerts available in early 2016.</p>
Quality Measurement and Reporting Services	Facilitate the submission of measures data for quality management and improvement with metrics at a provider, organizational, plan or population level. Increasingly, quality reporting is tied to	There is no centralized data collection and aggregation service available to providers in Wisconsin to

Shared Service	Description	Wisconsin Current State
	provider reimbursement arrangements and is an integral part of monitoring successes, failures, and progress at any level of the healthcare continuum.	meet multiple and varied quality measurement and reporting requirements and needs. WCHQ and WHA provides quality reporting services for providers reporting to PQRS through Physicians Compass.

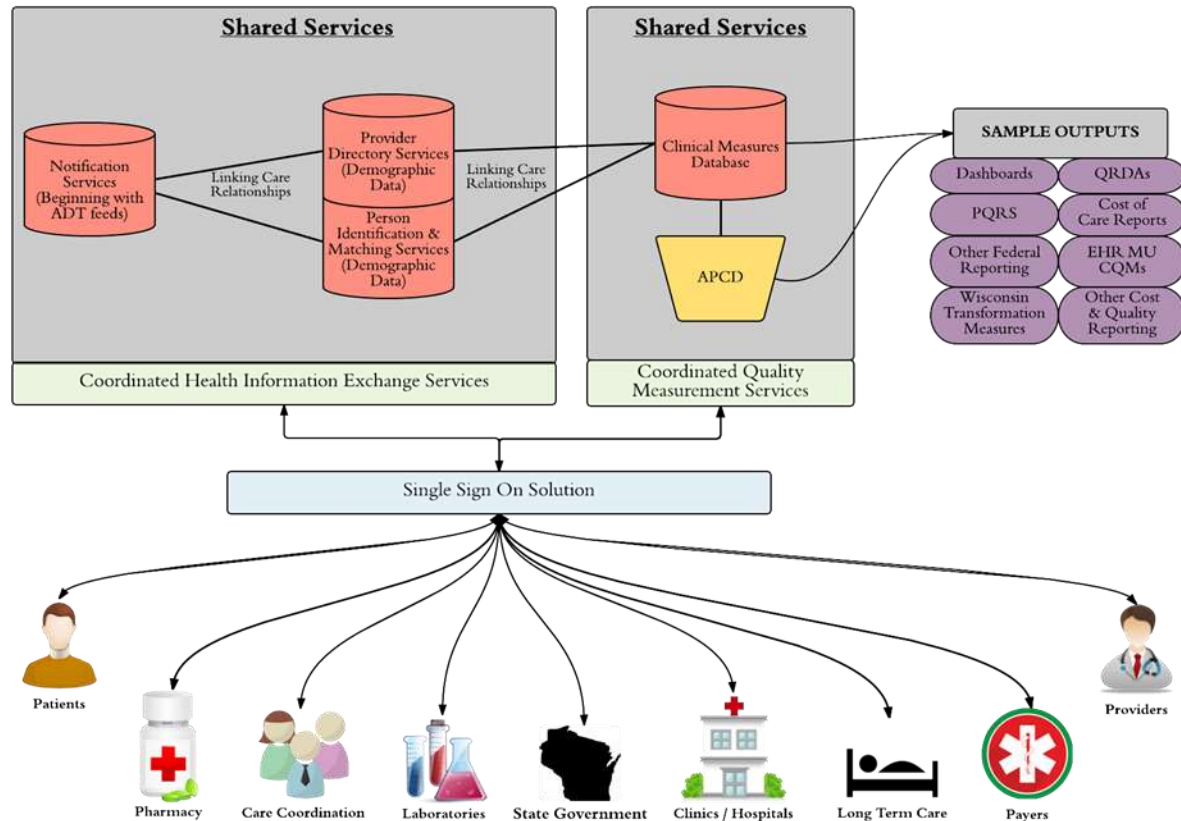
### 12.3 Desired Future State/Transformation Goals

The Health IT team identified these Shared Technology Services as priorities to support the SHIP goals:

- **Notifications:** Services enabling healthcare providers to receive real-time alerts when a patient has a healthcare encounter. Notification services will begin with Admit, Discharge, Transfer (ADT) notifications and be expanded over time.
- **Health and Human Services Provider and Organization Directory:** A maintained index of information about providers, such as provider's name, practice site(s), secure messaging information, credentials, offered services, specialties, patient attribution to the provider, and provider attribution to a clinic, health system, health plan and payer. This service will begin with provider information and expand over time to include social service and community support organizations, among others.
- **Person Identification and Matching Services:** Services for successfully linking data on a specific individual collected by one source with data about that individual collected by another source; for example, when a primary care provider sends a summary of care about a patient to a specialist and the specialist matches the summary to an existing patient record.
- **Quality Reporting and Measurement Services:** Services to facilitate the submission of measures data for quality management and improvement with metrics at a provider, organizational, plan or population level.

During the Health IT team's August meeting, the team reached near unanimous agreement (with just one dissenting vote) on the following model for how Shared Technology Services would be delivered in the desired future state:

## Dual Coordinated Services Model



**Figure VII.6: Proposed Future State Shared Data Management Services.**

In the desired future state, some Shared Technology Services would be incorporated with health information exchange services, but quality reporting would be separate. The quality measurement and reporting services would access the provider directory and person identification and management services for provider / patient identification and attribution. Services could be provided by a range of organizations depending on the results of the RFP process(es).

In discussion during the meeting, the Health IT team agreed that it would be beneficial for users to send data to one entry point instead of multiple places. The team revised the straw model so that a single sign-on option will provide access to all of the services. Subsequently, as the Health IT team worked to develop greater detail on how the single data entry point would function, especially in conjunction with existing organizations and governance decisions, the team was unable to achieve consensus. Work will continue to flesh out these issues.

The Health IT team also reviewed a more detailed diagram, without reaching full consensus as a group. Discussions with stakeholders are ongoing to select the best model for Wisconsin. It is likely that decisions on a future-state model will be made through the SHIP Leadership Committee and Task Forces described below in the policy section (Section VII.14.2, Table VII.14). This diagram is included to

illustrate the feedback received from the majority of those Health IT team members who represented end-users of health data services in Wisconsin.

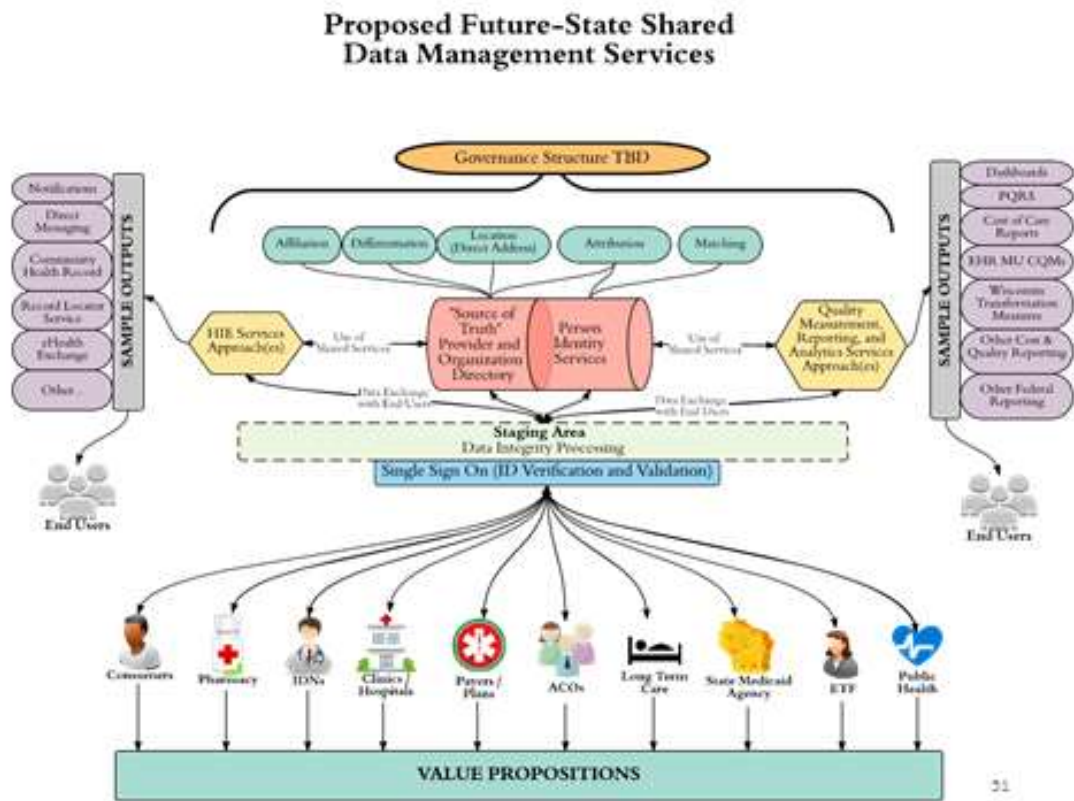


Figure VII.7: Proposed Future-State Shared Data Management Services (version 2)

Person Identification and Matching Services

Resolving person identification and matching issues is essential not only for clinical uses, such as referrals, and quality reporting needs, but also to support the ingestion of large data sets to be combined and optimized for population analytics. Patient data currently resides across disparate systems encompassing the individual’s entire continuum of care. Available data must be accurately linked together from within and across multiple organizations. This is particularly critical when connecting a person’s identity across the continuum of sources, each of which interacts separately with the individual. Examples include medical, claims, public health, educational, patient reported, and social services data sets.

Errors introduced into data sets lead to discrepancies and duplicate records that complicate the matching process and reduce the validity of community data. Unfortunately even within clinical applications, many types of errors commonly appear within registration records including inadvertent transposition of numbers; abbreviated names instead of legal names and varying methods for dealing



with hyphenated names; changes of address, telephone numbers and other contact information; and errors in information on insurance coverage.

This Shared Person Identification and Matching Service will replace the fragmented information of the current state with a statewide source of valid identification and patient data. The statewide source will decrease inefficiencies and costs, while improving accuracy.

- Potential Provider Impact:
  - Allow for the availability of critical clinical, administrative, and claims based relevant health information to enable effective healthcare delivery and care coordination.
  - Reduce paper-chasing efforts, faxing, manual entry of information, and demographic verification.
- Potential Individual Impact:
  - Improved patient safety through reduced risk of mistaken identity and increased provider access to relevant and timely health information.
  - Prevent duplicative and unnecessary procedures and testing.
  - Reduce inaccurate billing.
- Potential Public/Private Payer Impact:
  - Reduce costs by preventing duplicative and unnecessary procedures and testing.
  - Reduce inaccurate billing.
  - Allow for better cross-payer analysis.

In considering business requirements for this service, the Health IT team discussed data elements and sequencing considerations.

**Table VII.9: Data Elements and Sequencing Considerations.**

Scope of information	Implementation sequencing considerations
<p><i>Person data</i></p> <ul style="list-style-type: none"> <li>• Name</li> <li>• Birthdate</li> <li>• Gender</li> <li>• Race</li> <li>• Ethnicity</li> <li>• Address, phone number(s)</li> <li>• Medical record number(s)</li> <li>• Health plan ID(s)</li> </ul>	<p>Foundational to provider/patient attribution for notifications and quality measurement programs</p>

<ul style="list-style-type: none"> <li>● Preferred language</li> <li>● Emergency contact</li> </ul> <p><i>Optional person data</i></p> <ul style="list-style-type: none"> <li>● Living situation/homelessness</li> <li>● Employment status, employer</li> <li>● Income</li> <li>● Educational level</li> <li>● Social Security number (whole or last 4 digits)</li> </ul>	
---	--

Further development of technical requirements will be needed to support an RFP process and would be expected to occur through the task forces (see Section VII.14.2, Table VII.14).

### **Health and Human Services Provider and Organization Directory**

A significant number of resources are spent every year by healthcare organizations to maintain provider directories for both internal and external needs. Payers have provider directories, integrated delivery networks have directories, state agencies have directories, and the list goes on. In some parts of the country there is an attempt to develop federated provider directories, where each entity maintains its own directory that can be accessed by others. However, this structure requires the continued resources by all stakeholders to maintain full provider directories, rather than pooling resources to develop a centralized shared service.

As healthcare moves toward new payment models, the data available in existing provider directories is insufficient to accurately map the affiliations between providers and organizations, and between patients and providers. This level of detail is likely to become more and more important in order to meet reporting requirements for new payment models.

- Potential Provider Impact:
  - Supports the appropriate routing of secure messaging, transitions of care, and notifications/alerts.
  - Increases a provider's ability to engage in care coordination activities.
  - Helps to streamline referral workflows, including the ability to refer to social service agencies or community-based organizations.
  - Increases accurate provider information that is visible to other providers, individuals and payers in a defined area, including the provider's attributions, credentials, and offered services.
- Potential Individual Impact:
  - Improves access to up-to-date provider information.

- Improves patient safety by ensuring that a provider can efficiently and effectively coordinate their care and issue referrals, as well as facilitating providers' use of notifications and alerts.
- Increases the available pool of providers, facilities, and organizations to whom an individual can be referred efficiently.
- Potential Public/Private Payer Impact:
  - Improves efficiency in contracting and payment processes.
  - Supports member services with up-to-date provider information.
  - Increases information about providers serving a particular area for analysis of where shortages may be occurring.
  - Allows visibility into the attribution of providers for analysis, payment and management/oversight.
- Potential State/Federal Government Impact:
  - Allows for accuracy in cross-payer analysis, management and regulatory oversight.
  - Improves cross-agency coordination and accuracy, while reducing data reporting errors.

In considering business requirements for this service, the Health IT team discussed data elements and sequencing considerations.

**Table VII.10: Data Elements and Sequencing Considerations.**

Scope of information	Implementation sequencing considerations
<i>Individual provider data</i> <ul style="list-style-type: none"> <li>● Name</li> <li>● Gender</li> <li>● Practice locations with physical address, fax, phone, email</li> <li>● Direct address(es)</li> <li>● Languages spoken</li> <li>● Provider type</li> <li>● Specialties</li> <li>● Licensure</li> <li>● NPI (for all providers with NPI)</li> <li>● DEA</li> </ul>	Foundational to attribution of providers with organizations and patients

<ul style="list-style-type: none"> <li>• Accepting new patients?</li> </ul> <p><i>Optional individual provider data</i></p> <ul style="list-style-type: none"> <li>• Professional bio</li> </ul>	
<p><i>Healthcare organization data</i></p> <ul style="list-style-type: none"> <li>• Name</li> <li>• Federal Tax ID, NPI</li> <li>• Address, phone, fax</li> <li>• Web address</li> <li>• Type of organization (e.g., hospital, IDN, lab, pharmacy, clinic, department)</li> <li>• Hours of operation</li> <li>• Insurance types accepted (information not maintained in directory but linked to directory)</li> </ul> <p><i>Optional healthcare organization data</i></p> <ul style="list-style-type: none"> <li>• Technology used (e.g., EHR vendor name(s)/ versions, telehealth technology deployed, etc.)</li> <li>• Services offered <ul style="list-style-type: none"> <li>○ Medical (in-person visit, etc.)</li> <li>○ Telehealth (real-time virtual visits, scheduled virtual visits, image review, diagnosis, health education, care coordination, other, etc.)</li> </ul> </li> </ul>	Foundational to attribution of providers and organizations
<i>Attribution of providers to organizations</i>	
<i>Attribution of patients to providers</i>	Dependent on Person Identification and Matching service
<p><i>Human service organization data</i></p> <ul style="list-style-type: none"> <li>• Organization name</li> <li>• Address, phone, fax, email</li> </ul>	

<ul style="list-style-type: none"> <li>• Services offered</li> <li>• Populations served</li> <li>• Costs of services</li> <li>• Hours of operation</li> <li>• How to reach someone</li> <li>• Technology used</li> </ul>	
--	--

The Health IT team discussed the Healthcare Provider Directory (HPD) standard<sup>198</sup> as the likely standard to be used for a near-term implementation, with the understanding that standards development is ongoing. It will be important to monitor national standards development and adjust as warranted. Further development of technical requirements will be needed to support an RFP process and would be expected to occur through the task force (see Section VII.14.2, Table VII.13).

### **Electronic Notification Services**

Notifications may leverage ADT (Admit, Discharge, and Transfer) feeds to inform a patient’s care team when the patient is seen in a hospital or emergency department. Notification services can provide additional information beyond ADT notifications and be customized to the needs and preferences of specific end-users, whether the users are traditional providers, long-term care, social services, community-based organizations, or care/case managers. Effective notifications are dependent on reliable, segmented data, and establishing effective patient-provider or patient-entity relationships.

The Health IT team identified the first use of notifications as ADT notifications from hospitals. The next phase would involve medication information—notifications when a prescription is filled or refilled and when a medication is not picked up. Over time, additional notification phases could include other encounters, using ADT information from clinics and other non-hospital settings; social service encounters; and notifications to caregivers.

- Potential Provider Impact:
  - Deliver critical information to providers in real-time on a wide-range of use cases and via various technological mediums, ensuring that providers have relevant information at the preferred time.
  - Help to reduce readmissions; provide care transition interventions; facilitate referrals, warm-handoffs, and enrollments; and provide appointment management.
- Potential Individual Impact:
  - Improve patient safety through the delivery of critical information to providers when it is clinically relevant and/or time-sensitive, including the e-prescribing of medications.
  - Facilitate the enrollment in or referral to other providers, community-based organizations, social services, and state or local programs.

- Give patients a more efficient healthcare experience through a seamless referral process (potentially eReferrals), efficient enrollments, the e-prescribing of critical medications, and other important activities.
- Potential Public/Private Payer Impact:
  - Reduce costs through improved care management, particularly for high-needs patients.
  - Prevent unnecessary services, such as readmissions.
- Potential State/Federal Regulatory Impact:
  - State purchasers will have an increased ability to meet and demonstrate compliance with current and future reporting requirements.

In considering business requirements for this service, the Health IT team discussed scope and phasing considerations.

**Table VII.11: Health IT Scope and Phasing Considerations.**

Scope of Information	Phasing considerations
Admit, discharge, transfer (ADT) notifications from hospitals	<b>First phase.</b>  Interim approach to identifying provider-patient and payer-patient relationships until attribution services available.
Medication fills/refills	<b>Second phase.</b>
Medications not picked up – from pharmacy back to providers	
Healthcare encounters (ADT from clinics)	
Social service encounters	
Caregiver	

### Quality Reporting and Measurement Services

Quality Reporting and Measurement Services facilitate the submission of measures data for quality management and improvement with metrics at a provider, organizational, plan, or population level. Increasingly, quality reporting is tied to provider reimbursement arrangements and is an integral part of monitoring successes, failures, and progress at any level of the healthcare continuum.

With a Shared Technology Services model, there would be uniform data collection mechanisms and parameters, policies and procedures, data specifications and formats, etc. These services can use, work in conjunction with, or be independent of other services. Multiple measurement, analytics and reporting approaches could use the data collected and aggregated through the quality measurement and reporting services. The shared services would decrease the burden on providers to use multiple

interfaces and send data to many different places in order to meet reporting needs. As illustrated above, a single sign-on solution could be implemented as a point of access to support centralized data collection, staging, and cleaning/integrity processing. As noted, although the Health IT team agreed on the desirability of shared quality measurement and reporting services and single sign-on, the team did not reach full consensus within the group discussions on more granular details about the data collection and processing functionality, due to time constraints of the SHIP.

- Potential Provider Impact:
  - Simplify reporting on quality measures/metrics, for demonstrative, compliance, or reimbursement purposes.
  - Enable targeted quality improvement efforts by giving providers visibility into their performance, and potentially the ability to compare performance against other similar providers.
  - Quantify an institution or provider’s profitability, efficiency, and adherence to targets.
- Potential Individual Impact:
  - Improves patient safety by promoting efficiencies in provider performance monitoring.
  - Reduces consumer costs by preventing unnecessary tests, procedures, and other costly healthcare expenditures.
  - Facilitates informed decision-making, using publicly reported quality measures when selecting a provider or deciding whether or not to move forward with a treatment or service.
  - Improves opportunities to bring together more measures and enable different benchmarking for public reporting.
- Potential Public/Private Payer Impact:
  - Supports pay-for-performance models that depend on dashboard functionality.
  - Allows for integration of financial and quality metrics for cost of care analysis and incorporation of quality, performance, and accountability reporting into reimbursement arrangements.
- Potential State/Federal Regulatory Impact:
  - Allows for integration of quality metrics into financial rewards and payment methodologies.

In considering business requirements for this service, the Health IT team discussed elements of services and phasing options.

**Table VII.12: Health IT Elements and Phasing Considerations.**

Elements of services	Phasing Options
Clinical measures database with data mapping and normalization (dictionaries and translation) capability, etc.	<ul style="list-style-type: none"> <li>• Could start with focus on extracting electronic clinical measures for the top two or three quality improvement initiatives that a majority of Wisconsin providers are</li> </ul>

	participating in <ul style="list-style-type: none"> <li>• Could add others over time</li> </ul>
Linking to APCD database	<ul style="list-style-type: none"> <li>• Could start with SHIP measuring combined cost and quality of care provided to priority SHIP populations</li> </ul>
Use of demographic data in Health and Human Service Provider and Organization Directory and Person Identification and Matching Services	
Measures engine to generate dashboards, reports	

### Shared Technology Services Implementation Metrics

At this point in the development of the services, detailed metrics cannot be developed. The Health IT team did, however, recommend that high-level metrics address connectivity as a fundamental measure of success. This would involve identifying a baseline of data contributors and comparing future numbers of contributors. In addition, there would be value in measuring the number of organizations that commit to participating in the services.

### Targeted Health IT Services for SHIP Populations

In the ideal future state, telehealth and consumer-facing tools will be used to increase patient engagement and access to care and reduce disparities. To make effective use of targeted services, Wisconsin should establish or designate a Wisconsin Center for Technology-enabled Health/Connected Care (the Center). The role of the Center would be to

- Bring together and educate providers and health systems, consumers and patients, state agencies, health plans, and others
- Support learning collaboratives
- Promote the use of OpenNotes
- Be a trusted resource for Wisconsin-specific information on connected care
- Advocate for policy and reimbursement changes as needed
- Help connect opportunities; for example, if a health system wanted to provide tablets to low-income patients, the center could help negotiate with telecommunication carriers for reduced rates to enable patients to access health-related sites

Further discussion of the Center's role appears below in the discussion of Technical Assistance (Section VII.15.5).



In addition to the statewide coordination provided by the Center, the Wisconsin Department of Health Services should assign staff specifically to telehealth, to monitor telehealth developments and be accountable to coordinate across agencies.

## 12.4 Gap Identification and Analysis

### Shared Technology Services

As pertinent to potential Shared Technology Services, the SHIP Health IT Workgroup requested additional detail about existing master patient indexes (MPIs), provider directories, and notifications. An electronic online survey was distributed to Medicaid Health Maintenance Organizations (HMOs) and Wisconsin Department of Employee Trust Funds (ETF) for member participation. The results to date reveal that there is no one source of data to populate MPIs, provider directories, and notification services. Additionally, a centralized aggregator of data to establish statewide Shared Technology Services does not exist. The various components of the defined Shared Technology Services are in silos and various stages of maturity across organizations. Greater detail can be found in Appendix 14 (Shared Technology Services gap analysis document from 9/16 meeting)

The Health IT team reviewed the current landscape, identified gaps, and concluded that multiple factors have contributed to the current state. See Table VII.8: Summary of Current State of Shared Technology Services (Section VII.12.2) for an overview of the current state. Contributing factors identified by the Health IT team include:

- Providers, hospitals and payers submit data to many systems for many purposes, such as payment, reporting (public health, long-term care, mental health, etc.), licensing, certification, rate-filing, and others
- State data systems have been built in many silos. Where federal agencies have contributed to funding technology, historically they have not required interoperability of systems or required consistent data standards to be used, though CMS is making strides to change this through the Medicaid Information Technology Architecture (MITA) Seven Conditions and Standards
- Some multi-state collaboratives are forming to participate in joint purchasing agreements
  - Wisconsin participates in the Medical Assistance Provider Incentive Resources (MAPIR) 13-state collaborative as part of the Medicaid EHR Incentive Program
- There are many opportunities to improve data collection and streamline reporting
- Data collected through existing systems could be utilized by other programs

Another root cause that surfaced in stakeholder interviews and Health IT team discussions relates to the widespread adoption of a single vendor enterprise EHR system that is usually highly customized by each adopting organization. As demonstrated by Wisconsin Medicaid EHR Incentive Program data, as of the close of Program Year 2014 in August 2015, Wisconsin-based Epic is the dominant CEHRT vendor among Wisconsin hospitals and providers participating in the incentive programs: 40 percent of Wisconsin eligible hospitals and 64 percent of Wisconsin eligible professionals reported using an Epic

EHR system. Although regional market concentration may improve a limited amount of basic data sharing between those organizations using a single vendor's system, it may negatively affect providers' ability to exchange health information between disparate EHR systems, as healthcare organizations may make business decisions not to pursue further efforts to exchange data via electronic means, beyond what is already enabled by their EHR vendor. The Epic EHR systems are set up to allow their users to easily exchange a limited data set with other Epic users, which in many healthcare markets has established a "good enough for now" mindset when a predominance of large systems are Epic users within a region.

However, even in the "good enough for now" data sharing environment, where coordination of care across a community of diverse providers is constrained by the EHR system they are using, one can easily establish the value of investing in a statewide (or regional) system of Shared Technology Services described in the Wisconsin Health IT Plan, because the services would effectively address multiple pain points every large health system and newly forming ACO is experiencing in their data management efforts. For example, according to an August 2015 national survey of ACOs, "access to data outside my organization/network" was rated as a top health IT challenge by 78 percent of respondents.<sup>199</sup>

Reliance on data exchange through a single EHR vendor presents a risk to the use of the planned Shared Technology Services, but there is also recognition that with the development of Wisconsin's SHIP, there are new opportunities to build stakeholder support for the Shared Technology Services described in the plan. Establishing a financial sustainability model for the shared technology services is of utmost importance to the successful delivery of those services, over time.

Therefore, a potential barrier to the successful implementation of the SHIP Plan for Shared Technology Services arises from investments in existing organizations and services. Although the Health IT team agreed on the Shared Technology Services needed to support transformation, it was difficult for the group to separate the "what" and "how" of the desired future state from the "who." Selection of vendors for the Shared Technology Services is expected to occur after business and technical requirements development and an RFP process to select the vendors best able to meet those requirements. Until that process is complete, it is impossible to determine whether an existing organization or a new organization would be chosen. For users who have invested in and built interfaces with existing health IT services, however, the possibility of needing to connect with a new organization can be challenging. This is particularly true for organizations with fewer internal IT resources to devote to any such needs. In recognition of this barrier, the Health IT team agreed that the fiscal investment of early adopters should be considered if/when there is a need to transition these early adopters into the future Shared Technology Services infrastructure.

As the gaps in the current state are being addressed through the development of Shared Technology Services, risks will arise regarding the timing of service availability. If the Shared Technology Services are not developed quickly enough, ACOs and others may pursue separate solutions that are more fragmented and less robust, but can be developed to meet organizational timelines. To mitigate this risk, communication and rapid progress will be important. Key stakeholders must be involved in the task forces working on the next steps for Provider and Organization Directory and Person Identification

and Matching Services (see Table VII.13 in Section VII.13.2 for further detail). Frank discussion about timing and realistic schedules for services will be vital. As outlined above in Section VII.11.2, to efficiently advance development of services, it will be necessary to work concurrently on developing the requirements for the RFP and the funding requests to support development of the services.

## Targeted Health IT Services for SHIP Populations

### ***Telehealth***

Reimbursement and (for providers outside Wisconsin) licensure issues are barriers to provider participation in telehealth in Wisconsin. Payers face issues around the definition of telehealth and what Medicaid will reimburse for, particularly concerning store and forward approaches. The following barriers were identified for telehealth in relation to the Wisconsin SHIP project.<sup>200</sup>

1. Definitions of telehealth differ between Wisconsin Medicaid and a proposed telehealth rule of the State of Wisconsin Medical Examining Board (“Board”).
  - a. For Medicaid, the definition of telehealth that currently exists in state law is restricted to real-time audio video communications; however, a broader definition of the term telehealth is necessary to foster its use in innovative care delivery and payment models.  
*Telehealth Definition, Wisconsin Statutes 49.45(29w)(b)1.b<sup>201</sup> “‘Telehealth’ is a service provided from a remote location using a combination of interactive video, audio, and externally acquired images through a networking environment between an individual at an originating site and a provider at a remote location with the service being of sufficient audio and visual fidelity and clarity as to be functionally equivalent to face-to-face contact. ‘Telehealth’ does not include telephone conversations or Internet-based communications between providers or between providers and individuals.”*
  - b. The Board is going through the rule-making process for a new administrative rule that will govern standards of practice for telehealth. This proposed rule, unlike the Medicaid definition, includes a synchronous store-and-forward transmission in the definition of telemedicine. The proposed permanent rule is available here:  
[http://dsps.wi.gov/Documents/Board%20Services/Rulemaking/Rules/Med24\\_NPH\\_PHD.pdf](http://dsps.wi.gov/Documents/Board%20Services/Rulemaking/Rules/Med24_NPH_PHD.pdf)
2. Licensure requirements also differ between Medicaid policy and proposed Board rules on telehealth.
  - a. Under Medicaid policy, non-Wisconsin providers may provide telehealth services to Medicaid members in Wisconsin under certain circumstances without holding a Wisconsin medical license. An out-of-state provider must be certified by Wisconsin Medicaid, and an out-of-state provider who does not have border-state status under the Wisconsin Medicaid program also must obtain prior authorization (PA) before delivering services to Wisconsin Medicaid members.<sup>202</sup>

- b. Under the Board’s proposed telehealth rule, a physician using telemedicine in diagnosis or treatment of a patient in Wisconsin must hold an active Wisconsin medical license. Establishment of a valid physician-patient relationship is required, through:
    - An in-person medical interview and physical examination where the standard of care would require an in-person encounter.
    - A consultation with another licensee, or other healthcare provider, who has an established relationship with the patient and who agrees to participate in, or supervise, the patient’s care.
    - Telemedicine, if the standard of care does not require an in-person encounter, and is in accordance with evidence-based standards of practice and telemedicine practice guidelines that address the clinical and technological aspects of telemedicine.
3. Reimbursement:
  - a. Wisconsin’s Medical Assistance Program (MA) reimburses for specific telehealth services that are provided from a remote location using a combination of interactive video, audio, and externally acquired images through a networking environment between a member (i.e., the originating site) and a MA-certified provider at a remote location (i.e., distant site). Providers at remote locations receive the same reimbursement as they would for face-to-face contacts and the originating site is reimbursed a facility fee. The services must be of sufficient audio and visual fidelity and clarity as to be functionally equivalent to a face-to-face contact. Telephone conversations or internet-based communication between providers or between providers and patients are not MA reimbursable. Only services delivered in real-time or near real-time (delay in seconds or minutes) via interactive audio, video, or data communication are eligible for MA reimbursement.
  - b. An out-of-state provider who does not have border-state status with the Wisconsin Medicaid program is required to obtain a prior authorization (PA), which includes being certified by Medicaid, before delivering telehealth-based services to Wisconsin MA recipients.
  - c. Wisconsin does not have a telehealth parity law for private insurers. Although this gap may not have a significant impact on large health systems that can bargain from a position of strength, it may present a barrier for some smaller organizations.
  - d. Medicare reimbursement policies present barriers for providers.
4. Although access to broadband has improved for rural hospitals, gaps in access still exist for rural clinics and in patients’ homes.
5. There are technology gaps that need to be addressed so that patient data is available to all members of the patient’s care team. For example, the lack of certified EHRs, particularly for small behavioral health providers, is a barrier, and the gaps of interoperability to ensure the access and availability of supporting medical records is no different than with any other planned or unplanned transition of care.

## **Consumer Tools**

Individuals may face financial and language barriers to using these tools. The cost of tools may place the tools themselves out of reach, and with smartphone-reliant tools, the cost of data and minutes can be prohibitive. In addition, many tools are unavailable except in English.

When patients use consumer-facing tools that generate data (for example, a smart scale or a wearable), there are gaps in providers' readiness to integrate that data into the patients' records. Managing patient-generated data is very reliant on individual EHR vendors' offerings,<sup>203</sup> and providers may need support so they can use the data. For some providers, there may also be cultural barriers to the use of patient-generated data, as well as challenges in determining from a legal standpoint what is part of the medical record.

Providers face challenges in recommending apps to their patients. A recent report indicates that providers were increasingly interested in using apps to improve patient engagement and care delivery, but faced barriers such as "lack of scientific evidence, limited healthcare system integration, regulator and privacy unknowns and few provisions for reimbursement."<sup>204</sup>

## **13. GOVERNANCE**

The Health IT team reached consensus on the definition of governance, the current state, and attributes of desired governance. However, as the team grappled with the details of the desired future state, some team members voiced concern about how existing organizations and the end users of the organizations' services might be affected by any shifts in the current delivery model in health IT services. Within the time constraints of drafting this plan for submission to CMMI, the Health IT team was not able to reach consensus on the desired future state for governance.

At the time of the writing of this plan, development of SHIP governance, including the leadership committee and backbone organization, is under discussion. If consensus is not reached in that process, the Wisconsin Department of Health Services (DHS) would have the option to move forward to implement key services to support SHIP goals focusing on the Medicaid population – particularly a Provider and Organization Directory and a Person Identification and Matching Service—and make those services available to other end users in Wisconsin. For additional discussion of the SHIP Leadership Committee and backbone organization, see Section I.2 and III.4.

### **13.1 Definitions**

Health IT governance includes identifying the entity to provide oversight and to hold accountable the parties responsible for exchanging electronic health information.<sup>205</sup> Governance should instill confidence among governed organizations, their users (e.g., healthcare providers and patients), and other exchange partners regarding the way in which electronic exchange is conducted.<sup>206</sup> As part of its guidance on developing a health IT plan, the Center for Medicare and Medicaid Innovation (CMMI) refers to key elements needed for strong governance:

"a comprehensive, realistic plan, consistent with any existing plans, to implement an interoperable health IT and data infrastructure to support the Model Test should map clearly to the state's logic model, leverage existing assets (including those at provider, system and

regional level), align with state and federally funded programs, and include strong governance. Governance and decision-making structures should include a process for resolving conflicts over data ownership, information sharing, and exchange between public and private stakeholders, should they arise, and expand to support the engagement of additional provider types and patients, as needed.”<sup>207</sup>

### 13.2 Fact-finding / Current State

This assessment of the current state is not intended to be an exhaustive list of all entities that have a role in health IT governance in Wisconsin; rather, it identifies governance of health IT stakeholders key to the Wisconsin SHIP. See Figure VII.4, Wisconsin Current State for a visual of the current health IT Landscape in Wisconsin.

Data have never moved well across organizational, vendor, and geographic boundaries; resolving this will be foundational to improve patient care as well as payment and delivery reform. Trust relationships between entities are difficult and costly, and take time to build, nurture, and maintain. Some business practices and revenue models have tended to reinforce silos. Existing models that support exchange are not sufficiently recognized and replicated. Implementation guides are not sufficiently specified creating a lack of clarity that can lead to mistrust between potential partners.

Currently no single governing body is recognized by all participants as providing oversight and holding accountable the parties responsible for exchanging electronic health information in Wisconsin. Several private organizations offer services to exchange health information in Wisconsin. Key stakeholders were interviewed as part of the assessment of Wisconsin’s health IT current state, and each entity has deployed its own governance structure.

Current Wisconsin law addresses several aspects of data collection. Regarding hospital data, [Wisconsin Statutes 153.05\(2m\)\(a\)](#)<sup>208</sup> provides for a contracted entity (currently the Wisconsin Hospital Association Information Center (WHAIC)) to supply certain health information services on behalf of the State of Wisconsin and outlines requirements for data collection, analysis, and dissemination of healthcare information of hospitals and ambulatory surgery centers.

Related to health information exchange, [Wisconsin Statutes 153.81](#)<sup>209</sup> allows the state to designate a nonprofit corporation to use information technology to improve healthcare quality and efficiency through the secure electronic exchange and authorized use of health information. This statute provides for the state-designated entity to serve a wide range of purposes related to statewide health information exchange, including rules of the road for a statewide health information exchange network. The law requires the designated entity to annually evaluate, analyze, and report to the Secretary of DHS on the progress toward implementing statewide health information exchange, among other things. Currently this designated entity is the Wisconsin Statewide Health Information Network (WISHIN).

[Wisconsin Statutes 153.05\(2r\)](#)<sup>210</sup> permits the Department of Health Services and the Wisconsin Department of Employee Trust Funds to contract with a data organization that was formed specifically

to create a centralized claims repository for the state and publicly report on health care quality, safety, and efficiency. The data organization may request health care claims information from insurers and administrators under this statute.. Currently this organization is the Wisconsin Health Information Organization (WHIO).

Listed below are the entities that aggregate data in Wisconsin and their governance models. As detailed below, significant overlaps can be seen in the membership of these entities' boards. <sup>211</sup>

**Table VII.13: Data Aggregation Entities in Wisconsin and Their Governance Models.**

Organization	Mission and/or Goals	Data Services	Governance Structure
<b>The Alliance</b>  <b>Cheryl DeMars</b> <b>Chief Executive Officer</b>	A cooperative of employers moving healthcare forward by controlling costs, improving quality, and engaging individuals in their health	<ul style="list-style-type: none"> <li>The Alliance negotiates directly with hospitals and clinicians on behalf of employees considering both quality and cost. Members experience savings and employees and their family members have broad freedom of choice.</li> <li>The Alliance helps members actively control their costs by providing data management and claims reporting. Members who understand their healthcare costs can impact them.</li> <li>The Alliance provides education and resources to help members design benefit plans and implement employee wellness and prevention programs.</li> </ul>	<b>Board of Directors</b> Janette Berry <i>Miniature Precision Components (MPC) Inc.</i> Mary Kay Brooks <i>Brooks Tractor, Inc.</i> Vikki Brueggeman <i>Zimbrick, Inc., Vice Chair</i> <i>Mead &amp; Hunt</i> Jill Kaney <i>Wesley Willows Corporation</i> Brad Olm, Board Chair <i>Gordon Flesch Company, Inc.</i> Jennifer Pagels <i>Trek Bicycle Corporation</i> Larry Pribyl <i>Trachte Building Systems</i> Kyle Reading, Immediate Past Chair <i>Spuncast, Inc.</i> Mark Rieland <i>Flambeau, Inc.</i> Mark Stevens <i>Maranatha Baptist University</i>
<b>MetaStar</b>	To effect positive change in the	MetaStar offers a range of services to meet the needs	<b>Board of Trustees</b> <i>The MetaStar board has a</i>

<p><b>Greg Simmons, President and Chief Executive Officer</b></p>	<p>quality, efficiency and effectiveness of healthcare.</p>	<p>of healthcare organizations and providers and efforts to improve healthcare. Our success is grounded in our longstanding reputation for excellence and high customer satisfaction, as well as our team of qualified and dedicated experts.</p> <ul style="list-style-type: none"> <li>• HEDIS Audits</li> <li>• Medicare Data Validation</li> <li>• Initial Validation Audit</li> <li>• Independent Medical Review</li> <li>• Meaningful Use Consulting</li> <li>• Privacy &amp; Security</li> <li>• External Quality Review</li> <li>• Data Analysis</li> <li>• Practice Transformation Network</li> <li>• Continuing Education</li> <li>• Quality Improvement Consulting</li> </ul>	<p><i>minimum of eight and a maximum of 12 members. Approximately one-third of the Trustees are up for election each November for terms beginning January of the following year. Trustees are limited in most cases to two consecutive three-year terms. Trustees are compensated at a rate of \$85 per hour of meeting time plus travel expenses.</i></p> <p>Steven Bergin, MD – Chair <i>Aspirus</i></p> <p>Suzanne Schuler, MSN, RN – Vice Chair <i>Retired</i></p> <p>Mike Sanders – Secretary/Treasurer <i>Monroe Clinic</i></p> <p>William H. Annesley, Jr., MD <i>Lincoln Avenue Clinic</i></p> <p>Jac Garner <i>Webcrafters, Inc.</i></p> <p>John W. Hartman, MD <i>Visonex, LLC</i></p> <p>Daniel L. Johnson, MD <i>Red Cedar Clinic – Myrtle Werth Hospital</i></p> <p>H. B. Maroney, JD <i>Retired</i></p> <p>Judy Robson, RN, BSN, MSN <i>Retired</i></p> <p>Kathleen J. Sawin, PhD <i>University of Wisconsin – Milwaukee</i> <i>Children’s Hospital of Wisconsin Milwaukee</i></p>
<p><b>Wisconsin Collaborative for Healthcare Quality</b></p>	<p>WCHQ publicly reports and brings meaning to performance measurement</p>	<p>WCHQ is a multi-stakeholder, voluntary consortium of Wisconsin organizations. WCHQ draws its <a href="#">membership</a></p>	<p><b>Board of Directors</b> <i>The WCHQ Board of Directors approves strategic and financial planning, establishes policies and monitors the management</i></p>



<p><b>(WCHQ)</b></p> <p><b>Christopher Queram</b> <b>President &amp; Chief Executive Officer</b></p>	<p>information that improves the quality and affordability of healthcare in Wisconsin, in turn improving the health of individuals and communities.</p>	<p>from health systems, medical groups, hospitals and health plans. This diverse and dynamic group includes the state's largest health systems, Aurora Healthcare and the University of Wisconsin Hospital and Clinics / University of Wisconsin Medical Foundation.</p> <p>WCHQ also collaborates with a number of other healthcare <a href="#">stakeholders</a>, including purchasers, consumers, policy and advocacy organizations, government agencies, research institutions and foundations.</p>	<p><i>team. To diversify its perspective and expertise, the Board of Directors includes representation from healthcare providers, purchasers and consumers.</i></p> <p>Mark Thompson, MD * <i>Monroe Clinic</i></p> <p>Andrew Weier * <i>Ministry Health Care</i></p> <p>Patrick Falvey, PhD * <i>Aurora Health Care</i></p> <p>George Kerwin * <i>Bellin Health</i></p> <p>Rick Abrams ± <i>Wisconsin Medical Society</i></p> <p>Marilu Bintz, MD <i>Gundersen Health System</i></p> <p>Greg Blommel, MD <i>Froedtert &amp; Medical College of Wisconsin Community Physicians</i></p> <p>Steve Brenton ± <i>Wisconsin Hospital Association</i></p> <p>Brett Davis <i>WPS Health Insurance</i></p> <p>Cheryl DeMars <i>The Alliance</i></p> <p>Steven Driggers, MD <i>Holy Family Memorial</i></p> <p>Jeff Grossman, MD <i>UW Medical Foundation</i></p> <p>Dean Gruner, MD * <i>ThedaCare</i></p> <p>Rita Hanson, MD <i>Wheaton Franciscan Healthcare</i></p> <p>Jeff Huebner, MD <i>Group Health Cooperative of South Central Wisconsin</i></p> <p>Dianne Kiehl *</p>
--	---	--	---

			<p><i>Business Health Care Group</i></p> <p>Kori Krueger, MD <i>Marshfield Clinic</i></p> <p>Steven Kulick, MD <i>ProHealth Care</i></p> <p>Mark Moody * <i>WEA Trust</i></p> <p>Josephine Musser <i>Wisconsin Health Information Organization</i></p> <p>Geoff Priest, MD <i>Meriter Hospital</i></p> <p>Ashok Rai, MD <i>Prevea Health</i></p> <p>Dave Rushlow, MD * <i>Mayo Clinic Health System - Franciscan Healthcare</i></p> <p>Julie Schuller, MD <i>Sixteenth Street Community Health Centers</i></p> <p>Barb Sorcic <i>Fort HealthCare</i></p> <p>Dirk Steinert, MD <i>Columbia St. Mary's</i></p> <p>Jim VanderMissen <i>Primary Care Associates of Appleton</i></p> <p>Jerry Ward <i>Seats Incorporated</i></p> <p>Stewart Watson, MD <i>Dean Clinic</i></p> <p>John Weigelt, MD <i>Medical Director of Clinical Quality, Froedtert Hospital</i></p> <p>Bill Wessels, MD <i>Aspirus Wausau Hospital / Aspirus Clinics, Inc.</i></p> <p>Ruth Yarbrough <i>Mercy Health System</i></p>
--	--	--	--

			* Executive Committee ± Ex-officio
<b>Wisconsin Health Information Organization (WHIO)</b> <i>Josephine Will Musser, Chief Executive Officer</i>	<ul style="list-style-type: none"> <li>Aggregate healthcare data to create a comprehensive, reliable data source to be used by multiple stakeholders to decrease unwarranted variations in efficiency, quality, safety and cost;</li> <li>Improve the quality, cost, safety and efficiency of healthcare in Wisconsin by partnering with providers, purchasers and consumers;</li> <li>Inform and support provider, payer and purchaser quality improvement and value-based initiatives; and</li> <li>Encourage consumer engagement by publishing usable information.</li> </ul>	<p>About the WHIO Datamart:</p> <ul style="list-style-type: none"> <li>The only statewide voluntary All-Payer Claims Database in the nation</li> <li>Includes more than 4 million individuals – 70+% of Wisconsin's population</li> <li>Includes more than 300 million claims – medical and pharmacy, and</li> <li>More than \$70 billion in billed charges – Commercial, Medicaid, Medicare Advantage</li> </ul> <p><i>The addition of Medicare fee-for-service claims data later in 2015 will enhance the scope of the Datamart.</i></p>	<b>Board of Directors</b>  Linda Syth, Chair <i>Wisconsin Medical Society</i> Lisa Ellinger, Vice Chair <i>State of WI Employee Trust Funds</i> Dianne Kiehl, Secretary <i>Greater Milwaukee Business Foundation on Health</i> Mark Xistris, Treasurer <i>The Alliance</i> Terry Bolz <i>Unity Health Plans</i> Steve Brenton <i>Wisconsin Hospital Association</i> Phil Colmenares, M.D. <i>WPS Health Insurance</i> Anita Holloway, M.D. <i>Humana</i> Mark LePage, M.D. <i>Security Health Plan</i> Mark Moody <i>WEA Trust Insurance</i> Kevin Moore <i>Wisconsin Dept. of Health Services</i> Chris Queram <i>Wisconsin Collaborative for Healthcare Quality</i> John Toussaint, M.D. <i>ThedaCare Center for Healthcare Value</i> Bruce Weiss, M.D. <i>UnitedHealthcare of Wisconsin</i>
<b>Wisconsin Hospital Association (WHA)</b>	The WHA's mission is advocating for the ability of its members to lead in	WHA has been publicly reporting quality results since 2004, on CheckPoint. CheckPoint is a voluntary	WHA's Board provides governance of WHA and WHAIC.  <b>Board of Directors</b>

<p><b>Eric Borgerding, President &amp; CEO</b></p>	<p>the provision of high quality, affordable, and accessible healthcare services, resulting in healthier Wisconsin communities. Goal – Position Wisconsin hospitals and health systems to maximize quality performance through improvement collaboratives and public reporting of quality and safety measures.</p>	<p>effort that reports 60 hospital quality measures. Every WI hospital participates in the measures that are applicable to services they provide. Measures on CheckPoint are used by payers, including the Wisconsin Department of Health Services, for their pay-for-performance programs to drive key metrics such as hospital acquired infections, readmissions and obstetrical safety. WHA also collects, aggregates and uses data representing process and outcome measures to support the statewide improvement collaboratives it facilitates. These measures include data supplied by the WHA Information Center and data supplied directly by hospitals into an online data portal.</p>	<p>Therese Pandl, Chair <i>HSHS- Eastern WI Division</i> Mike Wallace, Chair-Elect <i>Fort HealthCare, Fort Atkinson</i> Ed Harding, Immediate Past Chair <i>Bay Area Medical Center, Marinette</i></p> <p>The WHA Board of Directors includes additional members, available online at: <a href="http://www.wha.org/board-wha.aspx">http://www.wha.org/board-wha.aspx</a>.</p>
<p><b>Wisconsin Hospital Association (WHA) Information Center (WHAIC)</b></p> <p><b>Debbie Rickelman, Vice President and Privacy Officer</b></p>	<p>Dedicated to collecting, analyzing and disseminating complete, accurate and timely data and reports about charges, utilization, quality and efficiency provided by Wisconsin hospitals, ambulatory surgery centers and other healthcare providers.</p>	<p>Wisconsin hospital and ambulatory surgery center data. Listed below are products and services provided by WHAIC:</p> <ul style="list-style-type: none"> <li>• Relational Data Set</li> <li>• Fixed-Width Data Set</li> <li>• Custom Data Request</li> <li>• Annual Survey of Hospitals Data Set</li> <li>• Hospital Fiscal Survey Data Set</li> <li>• Certified Health Cost Fee Database for WI Worker's Compensation</li> </ul>	<p>In addition to WHA's Board of Directors, WHAIC has a <b>Board of Advisors</b></p> <p>Terri Richards, Chair <i>Ministry Health Care Corporate</i></p> <p>Loren Anderson Oskar Anderson <i>OHI</i></p> <p>Eric Borgerding <i>WHA</i></p> <p>Ken Carlson <i>Sauk Prairie Hospital</i></p> <p>Jim Dietsche <i>Bellin Health</i></p>

		Program <ul style="list-style-type: none"> <li>Wisconsin DWD Registered Nurse Workforce Data</li> <li>Annual Publications</li> </ul>	Jason Douglas <i>Memorial Medical Center</i>  <a href="http://www.wha.org/boardInformationCenter.aspx">http://www.wha.org/boardInformationCenter.aspx</a>
<b>Wisconsin Medical Society (WMS)</b>  <b>Chief Executive Officer</b> <b>William “Rick” Abrams, JD</b>	Improve the health of the people of Wisconsin by supporting and strengthening physicians' ability to practice high-quality patient care in a changing environment.	Physician directory	<b>Board of Directors</b>  Officers  Jerry Halverson, MD <i>President</i> Richard A. Dart, MD <i>Immediate Past President</i> Barbara A. Hummel, MD <i>President-Elect</i> Martha (Molli) Rolli, MD <i>Board Chair</i> Thomas M. Derrig, MD <i>Board Vice Chair</i> Julie B. Schuller, MD <i>Treasurer</i> Michael M. Miller, MD <i>Speaker of the House</i> Jay A. Gold, MD, JD, MPH <i>Vice Speaker of the House</i>
<b>Wisconsin Statewide Health Information Network (WISHIN)<sup>212</sup></b>  <b>Joseph Kachelski</b> <b>Chief Executive Officer</b>	<p>To develop and sustain a trusted, secure statewide health information network and information-sharing services that provide value to participants and patients.</p> <p>To promote and improve the health of individuals and communities in Wisconsin through the development of</p>	WISHIN Pulse and WISHIN Direct+ provide information-sharing services that facilitate electronic delivery of the right health information at the right place and right time, to the right individuals. Both products offer providers the promise of timely, relevant information that can lead to better clinical decisions, less duplication, more effective transitions of care, and reduced administrative costs	<b>Board Members</b>  Rick Abrams, Chair <i>Wisconsin Medical Society</i> Mark Moody, Vice Chair <i>Wisconsin Health Information Organization</i> Chris Queram, Secretary <i>Wisconsin Collaborative for Healthcare Quality</i> Brian Potter, Treasurer <i>Wisconsin Hospital Association</i> Michael Campbell <i>Wisconsin Department of Health Services</i>

	information-sharing services that facilitate electronic delivery of the right health information at the right place and right time, to the right individuals.		Mike Day Columbia St. Mary's Hospitals Pete Farrow Group Health Cooperative of Eau Claire Leon Lamoreaux <i>Anthem Blue Cross Blue Shield</i> Jonathan Jaffery, MD <i>UW Medical Foundation</i> Dianne Kiehl Business Health Care Group Karen McKeown <i>Wisconsin Department of Health Services</i> Paul Meyer <i>The Alliance</i> Narayana Murali, MD Marshfield Clinic Chuck Nason <i>Delta Dental</i> Kitty Rhoades <i>Wisconsin Department of Health Services</i>
--	---	--	---

### 13.3 Desired Future State/Transformation Goals

The Health IT team agreed that the duties of the governing body for Shared Technology Services would include setting strategic direction; establishing policies for users and uses of services, in compliance with applicable laws; setting budgets and ensuring sustainability; and exercising purchasing and contracting authorities. The Health IT team agreed on essential attributes of a governing body:

- Committed to the common good / aligned mission
- Neutral and trusted
- Transparent
- Representative of those who receive care, those who provide care, and those who pay for care
- Committed to action
- Has a well-defined decision-making process
- Holds itself accountable for progress

As noted above, the Health IT team did not reach consensus beyond identifying the attributes of a governing body. Further work on health IT governance is expected to be part of the development of the Leadership Committee for overall SHIP governance. For further discussion of the Leadership

Committee, see above in Section I.2 and III.4. For health IT specifically, one option being considered are Task Forces (discussed in the policy section below, Section VII.14.2) that would establish the business and technology requirements for the Shared Technology Services. These requirements would be used to inform the development of the RFP(s) for the Shared Technology Services.

## **14. POLICY**

### **14.1 Fact-finding / Current State**

When discussing the current environment, stakeholders frequently emphasized Wisconsin's tradition of collaborative private/public partnerships. In considering mechanisms to achieve transformation, Wisconsinites favor voluntary arrangements and contractual agreements over statutory mandates. That preference was also voiced in discussing potential mechanisms to encourage the use of health IT.

At the same time, as is evident from previous sections of this plan, Wisconsin's approach to health IT does not exist in a vacuum. There are a range of federal policies and requirements that can affect the use and funding of health IT services. Wisconsin's health IT policies should be developed with awareness of federal activities that can affect stakeholders' needs for and use of health IT. These include, but certainly are not limited to,

- Electronic clinical quality measurement reporting, such as Physician Quality Reporting System (PQRS) and Inpatient Quality Reporting (IQR),
- ACOs and other advanced payment models that necessitate use of health IT as a tool to meet measures,
- Medicare billing and reimbursement policies, such as chronic care management services,
- Statutes, regulations, and policies concerning privacy and security,
- Medicare and Medicaid EHR Incentive Programs (meaningful use),
- Federal health IT standards, such as ONC certification standards for electronic health records,
- Options to apply for federal financial participation (FFP) to help address funding barriers to implementation and participation, as well as requirements related to use of FFP.

As part of the technical assistance supplied through CMMI and ONC, Patricia MacTaggart shared information on current federal funding options that could be incorporated into the SHIP health IT planning. CMMI encourages SIM awardees to consider multipayer strategies to enable and expand the use of health IT. Medicaid and other state IT systems should complement and leverage interoperable statewide health IT infrastructure. When considering health IT funding through Medicaid, federal financial participation is potentially available through several funding streams: Medicaid Management Information System (MMIS), HITECH Act funding, and Medicaid administrative funding. Each funding stream has specific purposes and requirements. States are expected to review and rationalize all federal IT resource investments to support a comprehensive, interoperating health and human services IT infrastructure.

### **14.2 Desired Future State/Transformation Goals**

The Health IT team discussed the future state of policies related to financing and sustaining the Shared Technology Services, as well as potential policy mechanisms to promote the use of the services. The

Health IT team acknowledged certain considerations about the cost savings related to the Shared Technology Services. These included an expectation that broad use of Shared Technology Services will create cost savings to Wisconsin's healthcare system as a whole. The cost savings, however, will not accrue equally. Rather, the new efficiencies may result in savings for some and lost revenues for others, and gains and losses will differ for different services and different participants. The Health IT Plan is not intended to preserve profit margins for any particular participant or service area.

The Health IT team agreed on the following principles for fair financing of Shared Technology Services.

- Users of Shared Technology Services must invest proportionate to their usage; usage should be measured by a proxy such as organization size and not by a per-transaction basis
- Financing strategies should encourage participation by organizations serving Wisconsin's most vulnerable populations
- Sustainability of shared technology services must be an integral part of short and long-term planning, with the goal of an economic model fully supported by Wisconsin's public and private healthcare sectors
- The fiscal investment of early adopters should be considered if/when there is a need to transition these early adopters into the future Shared Technology Services infrastructure
- Whenever possible, strategies should seek to maximize the use of available Federal funds
- Policies and contracts should be leveraged to encourage ubiquitous participation, thereby maximizing the value propositions for all stakeholders and minimizing fragmentation

As to policy levers, the Health IT team reviewed a range of policy mechanisms that were shared by ONC, and discussed which ones they felt could best serve as potential mechanisms to support the Shared Technology Services. As the Health IT team discussed policy mechanisms in the desired future state, it was difficult for the group to separate the "what" and "how" of the conversation from the "who." Because of the breadth of organizations in the Wisconsin healthcare landscape (see Table VII.12 in Section 13.2), it was not possible for the Health IT team to identify specific mechanisms that could be implemented immediately.

As work toward SHIP implementation continues, further consideration will take place among stakeholders of the most appropriate policy levers to ensure data integrity and long-term sustainability of the recommended Shared Technology Services. One example of a potential policy lever is the Wisconsin Department of Health Services (DHS) use of contractual requirements that include language with Medicaid/BadgerCare Plus managed care organizations regarding the adoption and use of Shared Technology Services by Medicaid providers in their networks to support the coordination of care (e.g. between physical and mental healthcare providers) for members.<sup>213</sup> Conversations will need to continue with stakeholders to identify additional health IT facilitating mechanisms that can be leveraged to support the overall SHIP plan. For example, as the menu of best and better practices for transformation continues to be developed, the health IT task forces discussed in the table below should monitor that work and seek ways to support and connect those initiatives. In the Health IT team's discussions, the following potential mechanisms were considered and refined, although not finalized.



**Table VII.14: List of Shared Services and Potential Mechanisms to Support Shared Health IT Services.**

<i>Shared Service</i>	<i>Steps for Developing Policies for Shared Technology Services</i>
Health and Human Service Provider and Organization Directory Services	<p>In order to ensure accurate demographic information is collected and maintained in a statewide directory of providers and health and human service organizations, the SHIP Leadership Committee, in close collaboration with the Wisconsin Department of Health Services, should do the following:</p> <ul style="list-style-type: none"> <li>• Convene a Directory Task Force to develop the business and technical requirements for the directory, so a Request for Proposal (RFP) can be issued for a statewide directory that will reflect the business needs of end users. <ul style="list-style-type: none"> <li>○ Organizations that may respond to the RFP will need to exclude themselves, but wherever possible, the Directory Task Force should include representation from the following end-user stakeholder groups: <ul style="list-style-type: none"> <li>▪ Provider licensing boards and certification organizations</li> <li>▪ Purchasers (Health plans, the Alliance, ETF and Medicaid)</li> <li>▪ Providers and provider organizations (including but not limited to hospitals, academic medical centers, Wisconsin Medical Society, Wisconsin Primary Health Care Association, Wisconsin Association of Local Health Departments and Boards, Pharmacy Society of Wisconsin)</li> <li>▪ Quality measurement and reporting organizations</li> <li>▪ Consumers</li> </ul> </li> <li>○ The Directory Task Force should define a set of data elements (fields) that should be included in an RFP for the directory, including designating which data fields would be required to be completed by providers and organizations, and which data fields would be optional, when providers and organizations submit information to the statewide directory.</li> <li>○ The technical requirements defined by the Directory Task Force should ensure that the statewide directory will meet</li> </ul> </li> </ul>

Shared Service	Steps for Developing Policies for Shared Technology Services
	<p>the “best available” interoperability standards and implementation specifications, as defined in the <a href="#">Interoperability Standards Advisory</a> (ISA)<sup>214</sup>, issued annually by the Office of the National Coordinator for Health Information Technology (ONC)</p> <ul style="list-style-type: none"> <li>○ The Directory Task Force should develop a set of recommended policies to be adopted by the SHIP governing body that will ensure accurate information is entered and maintained in the directory, including but not limited to: <ul style="list-style-type: none"> <li>▪ Provider licensing boards and certification organizations should enforce those policies, as a condition of licensing or certification.</li> <li>▪ The annual filing requirement by the Department of Financial Institutions for corporations transacting business in Wisconsin (see <a href="#">Wisconsin Statutes 180.1622(1)</a><sup>215</sup>) should trigger a reminder for organizations to provide updates to the directory.</li> </ul> </li> <li>• Align contractual agreements on updating data, for example, Medicaid contracts, ETF contracts, ACOs’ agreements with member organizations, and participation agreements for quality organizations</li> <li>• Monitor national requirements (for example, CMS requirements for Medicare Advantage Organizations to disclose provider directories and real-time updates to online provider directories; CMS Stage 3 meaningful use rule provisions regarding National Plan and Provider Enumeration System (NPPES) updates) and leverage those requirements.</li> <li>• Explore other potential levers.</li> <li>• Align with other related business/policy requirements to simplify processes for providers and organizations when they submit demographic and organizational information.</li> <li>• Plan for the future when establishing requirements and policies. Readiness to expand the directory to include organizations providing support services to patients will demand forethought.</li> </ul>
Person Identification	When individuals receive healthcare and participate in human service

Shared Service	Steps for Developing Policies for Shared Technology Services
and Matching Services	<p>programs in Wisconsin, their demographic information must be accurately matched across all the providers and organizations from which they receive care and services. Accurate identity matching will help ensure patient safety, and will improve the ability of healthcare and human service organizations to coordinate with each other to provide better, more effective care for the individuals they serve. In order to also protect the privacy of individuals, the demographic data must be collected, stored, and matched with robust security and privacy measures. To ensure these goals are met, the SHIP Leadership Committee should:</p> <ul style="list-style-type: none"> <li>• Establish a Person Identity Services Task Force to develop the business and technical requirements for a statewide master person index of demographic data and patient matching software, to inform an RFP and to result in a statewide system that provides appropriate privacy and security functionality and meets the business needs of end users. <ul style="list-style-type: none"> <li>○ Organizations that may respond to the RFP will need to exclude themselves, but wherever possible, the Person Identity Services Task Force should include representation from the following stakeholders: <ul style="list-style-type: none"> <li>▪ Office of the Commissioner of Insurance (OCI)</li> <li>▪ Consumers</li> <li>▪ Purchasers (Health plans, the Alliance, ETF and Medicaid)</li> <li>▪ Providers and provider organizations (including but not limited to hospitals, academic medical centers, Wisconsin Medical Society, Wisconsin Primary Health Care Association, Wisconsin Association of Local Health Departments and Boards, Pharmacy Society of Wisconsin)</li> <li>▪ Quality measurement and reporting organizations</li> <li>▪ IT vendors who would not respond to the person identity services RFP, but whose products would need to connect with the person identity services</li> </ul> </li> </ul> </li> <li>• Ensure the Person Identity Services Task Force sets requirements for</li> </ul>

Shared Service	Steps for Developing Policies for Shared Technology Services
	<p>technology to meet the “best available” interoperability standards and implementation specifications, as defined in the annual ONC ISA.</p> <ul style="list-style-type: none"> <li>• Ensure the privacy of individuals who have demographic information in the index is protected, and that data security standards are developed and adhered to.</li> <li>• The Person Identity Services Task Force should develop a set of recommended policies to be adopted by the SHIP governing body that include but are not limited to: <ul style="list-style-type: none"> <li>○ Data storage policies</li> <li>○ Data access and use policies, including user details and user roles</li> <li>○ System Authentication</li> <li>○ Patient Consent Information</li> <li>○ Data breach policies</li> <li>○ Security standards and policies</li> </ul> </li> </ul>
Quality Measurement and Reporting Services	<p>All Payer Claims Database (APCD) Policies</p> <p>Through contracts, purchasers should use APCD data to provide enhanced understanding of patients’ total cost of care and to support decision-making by providers in alternative payment models. To achieve this, purchasers of health services (such as ETF) should require submission of data by health plans.</p>
Quality Reporting & Measurement Services	<p>Electronic Clinical Quality Measures (eCQM) Policies</p> <ul style="list-style-type: none"> <li>• As part of the Medicaid EHR Incentive Program (meaningful use), states may require Medicaid providers to report eQMs to the state. The ability should be used in Wisconsin to support the SHIP goals, and leveraged to support other state programs’ eCQM requirements as well. Purchasers of healthcare services, including employers and ETF, should also specify eCQM reporting requirements through contracts.</li> <li>• Consistency in measure selection and specifications will be needed, and measures should be selected that are consistent with the SHIP</li> </ul>

<i>Shared Service</i>	<i>Steps for Developing Policies for Shared Technology Services</i>
	<p>Transformation Measurement Team's principles for shared transformation measures.</p> <ul style="list-style-type: none"> <li>• Wisconsin's Medicaid EHR Incentive Program should require eQMs be reported via the statewide Shared Technology Services.</li> </ul>
Some or all Shared Services	<p>The SHIP Payment Model Team should explicitly include Health IT infrastructure as foundational components of new payment models. In addition, the following levers should be recognized:</p> <ul style="list-style-type: none"> <li>• Advanced Primary Care Arrangements can drive interoperability by specifying the Health IT interoperability requirements of providers participating in related federal programs.</li> <li>• Wisconsin's Medicaid program should continue to provide enhanced reimbursement for practices that achieve recognition as Patient Centered Medical Homes (PCMH) by, among other measures, using interoperable health IT for care coordination.</li> </ul>
Some or all Shared Services	<p>The SHIP Leadership Committee should work with stakeholders to develop health IT/information exchange language for inclusion into multi-payer Advanced Payment Model (APM) structures. For example, there should be requirements for the use of notification services to all primary care providers, not just hospital-employed providers.</p>
Some or all Shared Services	<p>State-appropriated funds should be used to advance healthcare service delivery and payment reform goals, and in particular the state should decrease barriers to adoption of Statewide Technology Services by allocating funds to support health IT activities. Others using and benefiting from the services should also contribute their fair share to support shared services.</p> <ul style="list-style-type: none"> <li>• The SHIP Leadership Committee should convene discussions among Medicaid, other payers and other users of Shared Services, to reach agreement on Wisconsin's approach to funding the services. With financial commitments for users' fair share of the costs, Medicaid should seek enhanced federal financial participation for Medicaid's share of the services costs.</li> </ul>
Single Sign On	<p>Appropriate legal agreements will be developed to ensure trust between all parties. Technical standards for authentication and authorization will meet federal security policies and recommendations, and will meet the standards and implementation specifications identified in the annual ONC ISA.</p>

### 14.3 Best and Better Practice

Much of the policy work around shared health IT services is in formative stages, so while there are emerging best practices in some parts of the country, there is not a clear way to identify best and better practices around topics such as the policies for the adoption and use of health IT that span organizations, funding a shared statewide health IT service, and funding ongoing maintenance and support.

Although the SHIP process has identified many worthy practices, funding realities mean that implementation may likely begin with smaller pilot projects. The Health IT Targeted Services are relatively easy to provide in small-scale implementations for such projects. For the Shared Technology Services, enhanced federal financial participation (90 percent federal funding, with a required 10 percent state match) is available to develop Medicaid's fair share of the described infrastructure. If implementation starts small and begins by testing the envisioned services in a particular geographic area, for example, then careful planning will be needed to address timelines and how these services could be brought to a statewide scale over time. These issues will need to be explored in moving to implementation, as a regional approach for Shared Technology Services could have implications for the state Medicaid plan with CMS.

## 15. TECHNICAL ASSISTANCE

### 15.1 Fact-finding / Current State Health IT Technical Assistance (TA)

A variety of organizations and sources currently provide health IT technical assistance (TA) in Wisconsin. The delivery type of TA varies based on the user groups. Some organizations provide personalized TA based on the user's needs (individualized TA), while others provide general educational resources and tools (knowledge-based TA). Some resources are available to the general public, while others are available only to members and subscribers.

This document focuses on technical assistance for health IT uses. It does not include TA offered to states in support of specific statewide healthcare reform initiatives, such as Office of National Coordinator TA for SIM Design and Testing States. In addition, fee-based TA provided by solution vendors or healthcare consultants is not included.

#### Federal Partners

##### *The Centers for Medicare and Medicaid Services (CMS)*

For States, CMS is a partner in the administration and oversight of the Medicaid EHR Incentive Program. State Medicaid Agencies can access Centers for Medicaid and CHIP Services (CMCS) Liaisons and Medicaid EHR Incentive Program subject matter experts. A [CoP website<sup>216</sup>](#) is a repository for presentations, shared state documents or templates, questions and answers from CoP meetings, and forums and blogs.

For the general public, an Electronic Health Record (EHR) resource center is available on the [CMS website<sup>217</sup>](#) as outreach and education materials and tools. Topics include basic information for the Medicare and Medicaid EHR Incentive Programs (meaningful use), quality, and administrative simplification.

### ***Office of the National Coordinator for Health IT (ONC)***

ONC coordinates nationwide efforts to implement and use health information technology and the electronic exchange of health information. Among other initiatives, ONC oversaw grant programs for Regional Extension Centers and State Health Information Exchange (HIE) Cooperative Agreements.

The HealthIT.gov Resource Center offers resources to support healthcare providers and Health IT professionals working towards the implementation, adoption, and meaningful use of certified EHR systems, and other health IT initiatives. Below is a sample list of resources ONC provides online:

**Table VII.15: Sample List of ONC Resources.**

Topics	Sample Resources
EHR Implementation	<ul style="list-style-type: none"> <li>• Solutions to common meaningful use challenges</li> <li>• <a href="#">Implementation support</a> for Critical Access Hospitals and Small Rural Hospitals</li> <li>• Electronic prescribing process</li> <li>• Electronic facilitated clinical quality improvement (eCQI) process</li> </ul>
Health Information Exchange (HIE)	<ul style="list-style-type: none"> <li>• Interoperability courses</li> <li>• National Rural Health Resource Center <a href="#">HIE toolkit</a> <a href="https://www.ruralcenter.org/rhitnd/hie-toolkit">https://www.ruralcenter.org/rhitnd/hie-toolkit</a></li> </ul>
Workforce Development Programs	<ul style="list-style-type: none"> <li>• Health IT curriculum for educators</li> <li>• Innovative approaches to delivering Health IT training and education</li> </ul>
General Implementation Resources	<ul style="list-style-type: none"> <li>• Repository of reports and webinars on health IT topics, such as:</li> <li>• Privacy questions for EHR developers</li> <li>• Connecting prescribers and dispensers to PDMPs through health IT</li> <li>• HIPAA security toolkit application</li> </ul>

### ***Indian Health Services (IHS)***

IHS provides medical and public health services to members of federally recognized Tribes and Alaska Natives. IHS collaborates with Wisconsin's State Medicaid Agency to support the efforts of the Tribal Health Centers, including provision of meaningful use consultants to the Tribal Health Centers.

IHS offers providers tools and training/office hours to facilitate the adoption and meaningful use of certified EHR technology (CEHRT). A variety of classes are offered to teach individuals affiliated with

IHS, Tribal or Urban Indian health program facilities how to use the Resource and Patient Management System (RPMS) and how it relates to meaningful use. Classes include on-the-ground training, computer-based training, and course materials.

The IHS LISTSERV allows all IHS audiences (patients, tribes, employees, contractors, providers, etc.) the opportunity to effectively communicate and collaborate. Related to health IT, examples of available listserv topics include electronic health records, electronic prescribing, health information exchange, and meaningful use.

## **Wisconsin Health IT TA Offerings**

### ***MetaStar***

MetaStar is an independent, nonprofit quality improvement organization that established the federally designated Wisconsin Health Information Technology Extension Center (WHITEC) in 2010. Currently, the Medicaid Health IT Extension Program, funded by the Wisconsin Department of Health Services, offers free expert assistance to Medicaid-enrolled healthcare providers as they adopt, implement, upgrade (AIU) and meaningfully use certified electronic health record (EHR) technology.

Services focus on assisting Medicaid providers eligible to participate in the Medicare or Medicaid EHR Incentive Program who 1) have not yet registered/applied for Stage 1 of meaningful use or adopt, implement, upgrade (AIU) certified EHR technology (CEHRT) under Medicaid, 2) are participating and have not yet achieved Stage 1 of meaningful use, and 3) are eligible for Stage 2 of meaningful use. MetaStar uses a variety of outreach methods to contact providers and practices.

The program offers these services:

- Outreach and Recruitment: General outreach to provider community via emails, newsletter communications, strategic partner messaging, and webinars. Direct outreach to targeted providers via emails, phone calls, and onsite visits.
- General Education: Providers are given the following opportunities for education by MetaStar:
  - Education about Medicare and Medicaid EHR Incentive Programs and meaningful use (MU) through webinars or learning sessions
  - Education about certified EHR technology (CEHRT) and relation to MU
  - Education and assistance with HIE options including but not limited to facilitating connection with appropriate resources, guidance on entering into participation and data sharing agreements for Direct secure messaging, and review and validation of HIE test messages for conformity with MU
  - Education about reporting to public health and facilitation of onboarding process
  - Education and instruction on registration and attestation



- Facilitation of best practice sharing and networking across practices (e.g. monthly newsletter, webinars, affinity groups, learning sessions)
- Preparation and Planning: Prepare and plan for EHR implementation and/or MU attestation for Stage 1 and/or Stage 2 through the following means:
  - EHR Incentive Program eligibility assessment
  - Determination of goal date for MU attestation
  - Guidance regarding the selection of menu measures and clinical quality measures
  - Gap analysis of MU readiness based on meaningful use dashboard reports from CEHRT
  - Guidance and recommendations for achieving MU objectives with emphasis on patient engagement, summary of care exchange for transitions of care and referrals, and protection of personal health information
  - Workflow redesign guidance
  - Troubleshooting of vendor related issues and barriers
  - Preparation of supporting documentation for MU attestation and audit
  - Assessment of technology infrastructure and recommendations on resources to address gaps and deficiencies
- Implementation of EHR systems: MetaStar will oversee and support implementation of EHR technology for providers that have not yet selected their CEHRT at the time of sign-up for technical assistance. The following services are provided to providers who meet this criteria:
  - Facilitation of vendor selection process, including tools for the request for proposal (RFP), demos, site visits, and reference checks
  - EHR implementation planning guidance with respect to MU reporting
- Privacy and Security: Ensure enrolled Medicaid providers are aware of national and state standards regarding security and privacy via the facilitation of a Security Risk Assessment (SRA) using online tool, and providing sample HIPAA security policies and procedure templates

In addition to technical assistance related to CEHRT and meaningful use, MetaStar offers technical assistance in related areas, including quality reporting and process improvement.

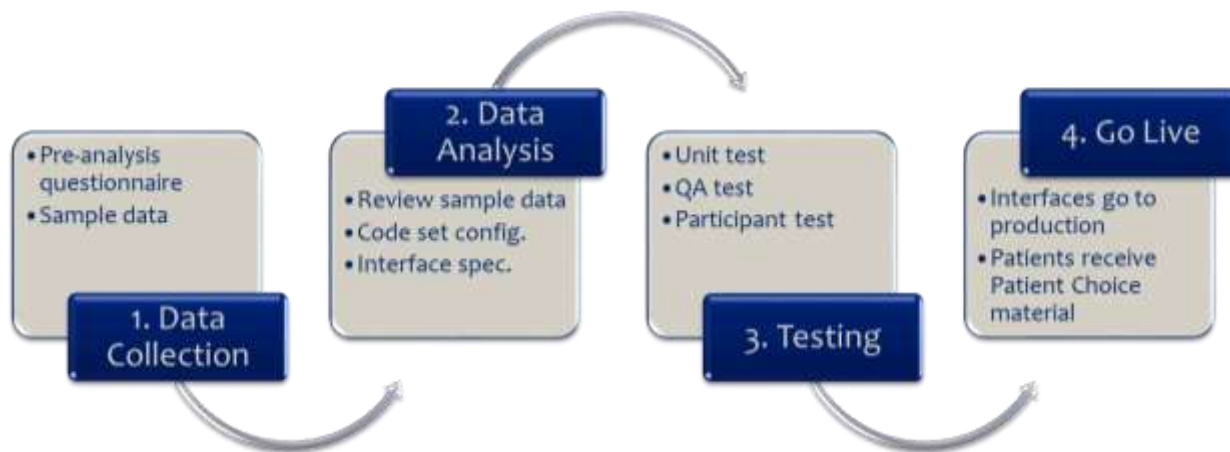
### ***Wisconsin Statewide Health Information Network (WISHIN)***

As discussed above, WISHIN is Wisconsin's state-designated entity (SDE) for Health Information Exchange (HIE). In this capacity WISHIN has implemented statewide HIE services. WISHIN has two major products: WISHIN Direct+ and WISHIN Pulse.

- Direct+ allows providers to connect and communicate with one another electronically, provides for a seamless, open exchange of patient information to support referrals and care coordination.

- Pulse is a community health record that provides an aggregated summary view of a patient's health information from all providers who have seen the patient.

For participating providers in Pulse, a WISHIN Project Manager is assigned to walk through the entire onboarding process from start to finish. The Project Manager acts as a liaison between the client (and/or the client's EHR vendor) and WISHIN's technical vendor, Medicity. A standardized onboarding process involving collection of information about the source EHR, obtaining sample data, analysis and multiple validation steps is shown below:



**Figure VII.8: WISHIN Standardized Onboarding Process.**

### ***Wisconsin Health Information Organization (WHIO)***

WHIO is a voluntary initiative supported by the healthcare community in Wisconsin. WHIO holds a rolling 27 months of claims data and a total of 23.7 million episodes of care in their database, which represents over 65 percent of the Wisconsin population.

The WHIO Datamart offers members and subscribers access to analytical tool with data provided by participating member organizations, consisting of health plans in Wisconsin and Wisconsin Medicaid. WHIO Datamart users have the option of creating do-it-yourself data analyses or calling on WHIO to do the work for them.

**Table VII.16: WHIO Sample Resources.**

TA Types	Sample Resources
Publications	<ul style="list-style-type: none"> <li>• WHIO Provider Variation Analysis DIY Manual</li> <li>• WHIO Atlas of Health Care in Wisconsin</li> </ul>
Use Cases	<ul style="list-style-type: none"> <li>• Provider Variation Analysis</li> <li>• Leakage Analysis</li> </ul>
Training Opportunities	<ul style="list-style-type: none"> <li>• Classroom Training on topics such as standardized pricing, provider network assessment, online analysis reporting, and episodes methodology and analysis</li> </ul>

- Learning forum
- In-person user workshop
- Virtual office hours via teleconference and WebEx for individualized consultation, Q&A and WHIO reporting assistance
- Webinar on How-To and Use Cases presentations

### ***Wisconsin Collaborative for Healthcare Quality (WCHQ)***

WCHQ is a multi-stakeholder, voluntary consortium of Wisconsin healthcare organizations that was created due to the recognition by key healthcare provider organizations in the state of the importance of performance measurement. WCHQ publicly reports measurement results through an online Performance & Progress Report, which allows any individual to access relevant, audited healthcare quality information, while comparing healthcare providers and performance measures.

The WCHQ Online Community provides tools and resources for collaborating on WCHQ initiatives. Providers, business and purchaser coalitions, and government agencies can participate in WCHQ workgroups and projects, share ideas and expertise, and connect with collaborators.

### ***Wisconsin Hospital Association Information Center (WHAIC)***

WHAIC is a wholly owned subsidiary of the Wisconsin Hospital Association (WHA). WHAIC collects, analyzes and disseminates data and reports about charges, utilization, quality and efficiency provided by Wisconsin hospitals, ambulatory surgery centers and other healthcare providers.

Data submission manual and FAQ:

<http://www.whainfocenter.com/submitters/data-submission-manual/>



For a detailed view of the full breadth of services provided by WHAIC, please refer to <http://www.whainfocenter.com/>

### ***Wisconsin Medical Society (WMS)***

WMS is the largest physician advocacy organization in the state with more than 12,000 members. It 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.

The WMS Continuing Education Center offers courses to members at a fee. On-demand technology related programs include:

- Hi-Tech Patient Engagement
- The Digital Practice: Building a Stronger Online Presence

- The Mobile Movement: Technology On the Go

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

WPHCA was established to advance the efforts of Wisconsin's 17 Community Health Centers (CHCs) in providing access to comprehensive community-oriented primary healthcare services. WPHCA supports CHCs through information and public education resources, government relations and advocacy work, and training and technical support.

WPHCA partnered with WHITEC to support CHCs in adoption and meaningful use of CEHRT. WPHCA coordinates with the Wisconsin Medicaid EHR Incentive Program to review CHC participation in the program and discuss additional TA needs to ensure the appropriate milestones are met by each clinic.

WPHCA provides information and links to national and Wisconsin resources on Health IT, such as the National Association of Community Health Centers (NACAC). It is a site that provides tools and resources to assist health centers in the selection, implementation and meaningful use of various Health IT.

### ***Rural Wisconsin Health Cooperative (RWHC)***

RWHC is owned and operated by 35 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 health IT 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 2011, RWHC received a sub-award from WHITEC to provide meaningful use-related technical assistance to Wisconsin's rural hospitals. RWHC works with over 40 Wisconsin rural hospitals and their affiliated clinics, providing meaningful use gap, financial, security, and QI assessments.

RWHC provides automated tools and IT consultation that allow demographic and clinical data import to the database from many EHR systems. It also provides assistance in understanding the complex data and reporting requirements that apply to meaningful use and Core Measures programs. For a fee, the service includes data calculations, report generation, preparation for attestation and/or electronic submission.

### ***Pharmacy Society of Wisconsin (PSW)***

PSW is an organization advocating for pharmacists, pharmacy technicians and student pharmacists with more than 3,000 members statewide.

The PSW offers Practice Interest Networks (PINs) designed to facilitate discussion between pharmacy practitioners who share common interests. The Informatics & Technology PIN is for pharmacy professionals interested in advancing pharmacy in the digital age.

## Health Systems

Many health systems provide training to their providers and staff. Although it is difficult to assess TA offered across all health systems, the Health IT team reviewed information from some organizations about their approaches. The following information is not an exhaustive compilation but is included to provide examples of TA available within some organizations.

### ***Agnesian HealthCare***

Agnesian HealthCare is a locally based, not-for-profit integrated healthcare system. Agnesian currently provides the following Health IT TA by in-house staff during technology upgrades:

- Email communications on step-by-step workflows, including PowerPoint training materials
- On-site technology training classes taught by IT training staff with or without a representative from EHR vendor
- On-site IT staff Q&A and control center
- In-house IT support hotline

Approximately 1500+ employees use the technical assistance resources annually. There are regular training sessions for nursing and scheduling/registration, as needed for providers.

### ***Marshfield Clinic Information Services (MCIS)***

Marshfield Clinic Information Services (MCIS) is an information technology company delivering and managing products and services for healthcare providers. MCIS is a wholly-owned subsidiary of Marshfield Clinic.

MCIS currently provides the following Health IT TA by in-house staff:

- Instructor-led, in-person, hands-on classes
- One-on-one workflow consultations
- Individual follow up on support calls
- Product documentation
- On-demand learning library housing reference guides, webinars, and other eLearning resources
- Compliance consultation and guidance (e.g. meaning use Stage 2 attestation methodology)
- Implementation planning, training and support for ongoing software / technology updates

Approximately 90 percent of MCIS's users (~7000 users) utilize internal training and consultation resources annually.

## Current State Telehealth TA

TA supporting telehealth in Wisconsin comes from local, regional, and national partners.

**Table VII.17:Local, Regional and National Telehealth Partners.**

Sources	Organizations	Primary TA Recipients
---------	---------------	-----------------------

Local Partners	Rural Wisconsin Health Cooperative (RWHC)	Rural Providers
Regional Partners	Great Plains Telehealth Resource & Assistance Center (gpTRAC)	Providers
National Partners	Telehealth Resource Centers (TRC)	Providers
	American Telemedicine Association (ATA)	Providers
	Rural Assistance Center (RAC)	Rural healthcare providers

### ***Rural Wisconsin Health Cooperative (RWHC)***

RWHC provides telehealth technical assistance for rural providers. RWHC is implementing a pilot for behavioral telehealth, supported by a grant from the Health Resources and Services Administration (HRSA). Fourteen Wisconsin hospitals are participating in the development of a behavioral telehealth network to drive improvements in patient access to behavioral health services, facilitate the collaborative development of related telehealth protocols, improve patient outcomes, and reduce costs by leveraging shared staffing and infrastructure across the network. The initial focus of the program is to provide outpatient mental health treatment to patients of participant organizations that lack behavioral health provider resources (patient site). Services are provided by clinicians from participant organizations with behavioral health provider resources (provider site) via the Telehealth Network.

In this pilot, RWHC provides assistance to patient and provider sites by:

- Facilitating contracting between provider and patient sites, CV file creation and maintenance, and reimbursement credentialing
- Assisting with commercial payer contracting as requested
- Standardizing on telehealth equipment
- Facilitating a collaborative protocol development process to promote best practice use of the behavioral health resources

### ***Great Plains Telehealth Resource & Assistance Center (gpTRAC)***

gpTRAC helps healthcare providers develop and implement telehealth programs by providing support and advice to facilities and organizations as they establish or expand their telehealth programs. gpTRAC serves not only Wisconsin but also Minnesota, Iowa, Nebraska, North Dakota, and South Dakota.

gpTRAC can walk through a readiness assessment with the provider, help identify technology options, find others who provide similar services, answer reimbursement questions, etc. The Information Library contains resources providers can use to develop telehealth / telemedicine program and services.

**Table VII.18: gpTRAC Resources.**

TA Types	Sample Resources
gpTRAC toolkit	<ul style="list-style-type: none"> <li>• Telehealth Start-Up and Resource Guide</li> <li>• Overview: Key issues in Specialty Consultation Telemedicine Services</li> <li>• Video example of a patient consultation</li> <li>• Sample Troubleshooting Guide</li> </ul>
Studies, Reports and WHealth ITe papers	<ul style="list-style-type: none"> <li>• Change of Patient's Perceptions of TeleHomeCare</li> <li>• Telemedicine Journals</li> </ul>

***Telehealth Resource Centers (TRC)***

Telehealth Resource Centers (TRCs) are federally funded, established to provide free-of-charge assistance, education and information to organizations and individuals who are actively providing or interested in providing medical care at a distance.

**Table VII.19: Telehealth Resource Centers.**

TA Types	Sample Resources
Webinars	<ul style="list-style-type: none"> <li>• Using Telehealth Technology to Monitor Tuberculosis Treatment</li> <li>• Managing Rural Spinal Cord &amp; Brain Injury Patients through Technology</li> <li>• Telehealth Security &amp; Breaches</li> </ul>
Operations Tools	<ul style="list-style-type: none"> <li>• Types of Telemedicine Specialty Consultation Services</li> <li>• Staffing and Recruiting Specialists</li> <li>• Facilities at the Provider / Patient Site</li> <li>• Pilot Testing</li> <li>• Patient Preparation</li> </ul>
Reimbursement	<ul style="list-style-type: none"> <li>• Medicare's Telemedicine / Telehealth Payment Policies</li> </ul>
Legal and Regulatory	<ul style="list-style-type: none"> <li>• Licensure and Scope of Practice</li> <li>• Federal Fraud and Abuse: False Claims Act</li> <li>• Medical Malpractice and Liability</li> </ul>

***American Telemedicine Association (ATA)***

ATA is a non-profit organization with membership open to individuals, healthcare institutions, and other organizations with an interest in promoting the deployment of telemedicine throughout the world. The ATA Learning Center provides educational resources.

**Table VII.20: American Telemedicine Association Resources.**

TA Types	Sample Resources
On Demand Education	<ul style="list-style-type: none"> <li>• Telemedicine Reimbursement Speaker Series</li> </ul>

	<ul style="list-style-type: none"> <li>• How-To Tutorials</li> <li>• State Legislative and Regulatory Update</li> </ul>
Online Courses	<ul style="list-style-type: none"> <li>• Delivering Online, Video-Based Mental Health Services</li> </ul>
Resources	<ul style="list-style-type: none"> <li>• ATA Practice Guidelines for Telemedicine</li> <li>• Case Studies, e.g., Georgia Partnership Uses Telemedicine and Centering Pregnancy Model to Significantly Decrease Preterm Labor Birth Rate in High Risk Areas</li> </ul>

### ***Rural Assistance Center (RAC)***

The RAC was established as a rural health and human services “information portal.” It helps rural communities and other rural stakeholders access the full range of available programs, funding, and research that can enable them to provide quality healthcare to rural residents.

**Table VII.21: Rural Assistance Center Resources.**

TA Types	Sample Resources
Web-based Services	<ul style="list-style-type: none"> <li>• Online Library: provides access to thousands of resources, including funding and opportunities, news, events, organizations, maps and publications</li> <li>• Topics &amp; States: features information, resources, and data for specific topics and states</li> <li>• Tools for Success: tools to help communities plan and implement successful projects, including program models and innovations, strategies that work, and tools for demonstrating need and impact</li> <li>• RAC Publications &amp; Updates: original publications from the RAC, including rural health updates, the Rural Monitor, webinars and customizable maps</li> </ul>
Electronic Mailing Lists	<ul style="list-style-type: none"> <li>• Users can subscribe to receive email updates on latest funding opportunities, recent news, new documents and tools, and upcoming events</li> </ul>
Customized Assistance	<ul style="list-style-type: none"> <li>• Identify potential funding opportunities</li> <li>• Locate appropriate federal or state agency contacts</li> <li>• Find and print electronic documents</li> <li>• Locate statistics, data sources and maps</li> <li>• Connect organizations to experts and colleagues</li> </ul>

## **15.2 Desired Future State/Transformation Goals**

The desired future state of TA includes adequate technical assistance resources to support the achievement of the SHIP goals. The Health IT team supports an approach that aligns health IT TA with the goals for better practice from the SHIP transformation teams. As the transformation teams continue their work on defining those practices, the Health IT team has focused on these categories of TA that can be prioritized and phased to help provide the health IT foundation to achieve the SHIP goals:

- Expanded TA to support adoption and use of EHRs



- Development of TA resources to achieve the optimal adoption and efficient use of Shared Technology Services
- Development of TA resources to support the increased adoption and efficient use of identified targeted services for targeted SHIP population to support SHIP goals around telehealth and connected care, including key consumer tools.

These TA offerings should include assistance with privacy and security issues, particularly as related to data sharing between behavioral health and primary care settings and to the use of mobile applications. In the desired future state, providers would have the ability to access TA whether or not they are eligible for federal incentive payments. If they need to the TA to be able to adopt and use the health IT tools that are needed to achieve the SHIP goals, they could access it.

As discussed in the Targeted Health IT Services for SHIP Populations section above, there is a need for a Center for Technology-enabled Health/Connected Care that would bring together existing and emerging resources to serve as the TA hub in Wisconsin for telehealth, mHealth, and other provider and consumer tools that are not yet even on our radar, since this sector is expanding and evolving. This center would bring together all the right players, and serve as a central point to educate, advocate, coordinate, and empower providers and consumers to drive innovation in the arena of tech-enabled health.

### 15.3 Gap Identification and Analysis

The key gaps between the current state and desired future state include the following:

- Lack of EHR TA to non-meaningful use eligible providers, particularly behavioral health and long term care providers
- Lack of TA to support optimal use of Shared Technology Services
- Lack of TA to support use of telehealth
- Lack of statewide information and coordination around telehealth and connected care
- Lack of awareness / training for use of consumer tools for patient engagement

As the Health IT team considered the current state of existing TA for CEHRT adoption, a core assumption was that providers in the following settings had less need for TA for CEHRT adoption:

- Affiliated with an Integrated Delivery Network (IDN), relatively large organization (based on number of associated providers), and/or university
- Affiliated with Eligible Hospitals that are enrolled in the Medicaid EHR Incentive Program in Program Year 2014
- Affiliated with Federally Qualified Health Centers and Tribal Health Centers, all of which have already adopted CEHRT, or are on track to

As the Health IT team reviewed the ways to prioritize TA services, the need for EHR adoption TA was focused on those providers, particularly behavioral health and long term care, who are not eligible for EHR incentive payments. See Appendix 13 for data on providers in those categories. These providers may not need all of the CEHRT functionality associated with meaningful use, but still need to adopt and

use EHRs for care coordination and quality measurement and improvement. In discussing the inclusion of long-term care providers and their role in addressing the needs of SHIP populations, the Health IT team noted that 37 percent of those needing long-term care in the United States in 2000 were under age 65.<sup>218</sup>

Special consideration should be given to specialty providers who provide services aligned to the targeted SHIP disease states, including hypertension, depression, and diabetes. In addition, continuing assistance should be considered for Federally Qualified Health Centers (FQHCs), Tribal Health Centers (THCs), and Rural Health Clinics (RHCs), especially in the area of TA for Shared Technology Services. It was also noted that some THCs may also need TA around CEHRT, depending on their current EHR platform. Additional gaps identified by the Health IT team are that, for any type of health IT adoption and use, small practices are less likely to have internal resources and thus are more likely to need additional TA and “handholding” to reach goals.

#### 15.4 Best and Better Practices for Supporting the Uses of Health IT

Best practices for TA include incorporating the lessons learned from the Regional Extension Center Program and other organizations providing TA. The Health IT team also wants to leverage existing assets including

- Building on economies of scale of currently offered TA
- Investments made for TA curriculum development
- Existing relationships

Better practices could include increasing participation and leadership in current or future federal learning collaboratives. The Health IT team also feels a better practice will be to focus TA at the practice, rather than the provider level, and to tailor the scope and type of TA to organization needs, basing the TA provided on the health IT maturity level of the practice.

It is also critical to engage patients through technology differently. As noted in one workgroup discussion, just a few years ago a small percent of patients had smartphones, and now it is at 68 percent of the population. There are more and more findings that when patients engage through technology for reminders and education, a good improvement in behaviors and outcomes is the result. Wisconsin needs to put the structures in place to ensure that vulnerable populations can benefit from technology-enabled health.

#### 15.5 Implementation Roadmap/Requirements

The SHIP Health IT team recommends that technical assistance should be offered in three health IT areas:

1. Expansion of CEHRT Adoption
2. Shared Technology Services, i.e., HIE services, quality measurement and reporting
3. Targeted Technology Services, i.e., Telehealth

## **Expanded TA for Certified EHR Technology**

The recipients of this TA service will be identified and served to align with SHIP goals. The Health IT Team agreed the 252 behavioral health practices that have 3 or more providers, and the 301 skilled nursing facilities would be the initial focus. This will cover approximately 2,000 behavioral health providers (50% of Wisconsin active Medicaid-enrolled BH providers likely to need CEHRT TA) and 75 percent of the Wisconsin active Medicaid-enrolled long term care provider organizations likely to need CEHRT TA.) (See Appendix 15 for provider analysis.)

Beyond traditional TA similar to the Regional Extension Center model but delivered at the practice level, the Health IT team suggested identifying additional strategies to encourage the adoption of EHRs by BH providers, such as working by region or community to organize collaboratives, affinity groups, professional associations, Independent Physician Associations (IPAs), etc., to work through, potentially with the possibility of having one of those groups offer hosted EHR solutions.

The scope of the TA will be:

- Modeled after the current Medicaid Health IT Extension Program
- Focused on individualized TA delivered at the practice level
- Tailored to the technology maturity level of the TA recipient

## **TA for Shared Technology Services**

The Health IT team recognizes that it will be critical to support providers in the adoption and use of the Shared Technology Services included in this plan, and have identified the following categories of providers and organizations as priorities:

- Small practices,
- FQHCs,
- THC's,
- RHCs,
- Small hospitals,
- Home health organizations, and
- Others as determined by need

It is important to note that in discussions during the planning process, the Health IT team made it clear that they do not want to leave anyone behind as innovation occurs, and other priority providers may be identified that need TA for shared services to be successful and SHIP goals to be achieved. It will be critical to look for prioritization and phasing over time.

## **TA for Targeted Services**

### ***Telehealth and Telemedicine***

A Wisconsin Center for Technology-enabled Health/Connected Care (the Center) will be designated or established to serve as the TA hub in Wisconsin for telehealth, mHealth, and other provider and

consumer tools that are not yet even on the radar, since this sector is expanding and evolving. The Center could be part of or closely connected with the SHIP backbone organization discussed in section I.2 and III.4 . The SHIP Leadership Committee should consider grant funding for the Center (particularly monitoring funding opportunities from HRSA and CMMI) and, when appropriate, should convene stakeholders to design the Center’s services and sustainability plan.

The Center would bring together all the right players, and serve as a central point to educate, advocate, coordinate, and empower providers and consumers to drive innovation in the arena of tech-enabled health. Specifically, the Center could:

- Monitor and update programs with better practices for technology-enabled health, e.g., telehealth, mHealth, and remote monitoring
- Provide technical assistance
- Support the expansion of the use of OpenNotes throughout Wisconsin
- Leverage purchasing power for provider organizations
- Identify outcome measures for technology-enabled services
- Advocate for policy and reimbursement changes, as needed
- Identify support to ensure access to vulnerable and at-risk populations
- Support learning collaboratives, e.g., bringing technology to vulnerable populations
- Seek and manage grant funding

The Center will provide resources to providers, payers, employers, and consumers. Resources will be focused on supporting SHIP goals, and TA will be targeted to reach prioritized populations of patients and providers to align with the needs of the SHIP transformation goals.

## VIII. Report on Stakeholder Engagement and Design Process Deliberations

The work to develop Wisconsin's State Health Innovation Plan began February 1, 2015 after announcement of the award in December. With support from Governor Scott Walker's administration and direction from the SVC Leadership Council and Wisconsin's Department of Health Services Secretary, the design for statewide transformation planning was initiated. In order to consider the development of the SHIP, a list of guiding principles was established. The principles included:

1. Design to meet the needs of the SIM Model Test requirements **AND** the best possible outcome for Wisconsin citizens.
2. Leverage existing work, know-how and infrastructure where it makes sense.
3. There are no sacred cows, we are looking to improve, not necessarily preserve "as is."
4. Focus on collective and collaborative work that allows us to get more done together than would be possible individually.
5. No "piling on" without regard to the burden of current operations that capture data and produce information. Look to replace existing processes with more efficient methods.
6. Candor with respect. Transparency is encouraged and expected.
7. SIM Model Design is an exercise in capacity building. The work of the transformation teams will be small enough to be digestible but important enough to be meaningful. Everything we do will be intentionally designed for scalability once proven.
8. Create a plan we can implement whether the Model Test funds are awarded or not.
9. The end game is higher quality, lower cost care.

The state of Wisconsin developed a plan to bring together stakeholders from both the public and private sectors in order to drive transformation. Organizations that could and would leverage these principles were identified and referred for participation. They included state and local health officials, healthcare systems and providers, community-based organizations, elected officials, local boards of health, other state agencies, payers, purchasers, economic development/planning entities, academic public health departments and institutes, and consumers.

A letter with an ask for in-kind support and individual referrals was sent out to the identified organizations from Secretary Kitty Rhoades and SVC Chairman Dr. John Toussaint. (See Appendix 16) Individual participation was to be considered across six teams:

- Population Health
- Behavioral Health
- Care Redesign
- Payment Models
- Transformation Measurement
- Health Information Technology

The teams were split into workgroups and advisory panels to ensure a broad spectrum of subject matter expertise and diversity. Workgroups were to consist of 8-12 individuals that could commit four to eight hours a month and make informed decisions at each step of the transformation process through face-to-face meetings, conference calls and offline research as needed. Advisory panels were asked to commit two hours a month to provide feedback on the decisions made by the workgroup; they were not limited in size.

## **1. TEAM DESCRIPTIONS FROM FACILITATORS**

**Population Health:** Population Health involves identifying the drivers of optimal health for the selected populations that are the focus of the State Health Innovation Plan (SHIP), and to develop an approach to health transformation that includes an emphasis on efforts and strategies that are initiated outside of healthcare delivery settings. The Population Health Workgroup's efforts are informed by a focus across the multiple determinants of health, as well as a focus on understanding and addressing gaps in health status and health outcomes that exist for different population sub-groups in Wisconsin.

**Care Redesign:** Care Redesign involves identifying and enabling best practices that support a statewide health system dedicated to achieving better care, smarter spending and healthier people. Innovative best practices put the person (patient) at the center and proactively focus on achieving desired health outcomes while aligning incentives for all stakeholders.

**Behavioral Health:** Behavioral Health involves identifying and enabling best practices for improving access to care for individuals with mental health and substance use conditions. The focus includes supporting innovative best practices that integrate behavioral and physical health, achieve improved health outcomes and align incentives for all stakeholders.

**HIT:** Health Information Technology (HIT) is a necessary tool to support healthcare transformation. HIT can enable access to information needed to provide better care and realize better outcomes, while eliminating inefficiencies and reducing costs. The HIT Workgroup, with input and support from the HIT Advisory Panel, will develop a plan to move toward HIT systems and services that work together to enable appropriate access to timely, accurate, usable information to transform healthcare in Wisconsin.

**Payment Models:** Payment Models involves developing approaches to payment, reimbursement and investment that will support successful, sustainable implementation of the care delivery system transformation and population health improvement strategies identified by other SHIP workgroups. The Workgroup will seek to leverage existing efforts to transform healthcare payment systems and invest in health improvement, while working to develop a plan that meets CMMI's overall goal of 80 percent of payments to providers from all sources being made in a value-based alternative to fee-for-service. The Payment Models Workgroup and Advisors will serve as a resource to all SHIP teams throughout the course of the project.

**Transformation Measurement:** Transformation Measurement involves identifying patient-centered, community level measures that will lead to improved performance and public transparency in the populations selected. Current measures will be inventoried and measurement gaps will be identified.

## **2. EXECUTION**

A team kickoff for the project was held for the workgroups in Wausau, Wisconsin on March 17, 2015. The all-day event was attended by over 45 members along with the team facilitators and project staff. Workgroup members learned more about the State Innovation Model award and how they could help transform health and healthcare in the state.

The following day, over 100 people joined via webinar for the advisory panel kickoff to learn more about their role in the development of the SHIP.

Immediately following the kickoff, an online poll was sent to find the best available dates for facilitating workgroup meetings where participation would be the strongest. The SHIP staff strived for 75 percent workgroup commitment and attendance before selecting a meeting date. All workgroup meeting dates were set by the end of May, with all but the Health Information Technology (HIT) team deciding upon the schedule of one 4-hour face-to-face meeting and one 2-hour conference call each month. The HIT team decided to meet once a month for six hours. See Appendix 17 for the workgroup, advisory panel, and consumer engagement meeting schedule.

Any additional meetings were to be added as necessary. The intention of each meeting was to have the stakeholders provide direction and make informed decisions. Materials and discussion points were offered as emailed attachments and through Google Drive in advance by each facilitator in order to allow time for necessary research.

Google Drive served as a central location for meeting materials and resource documents. Team members were given a tutorial on how to best use it for our project at the first in-person meeting and then given access. It served as a place of reference for workgroup meetings, as well as a place for team members to work collaboratively and “in real time” on documents to provide any necessary feedback. However, some organizations had firewalls restricting access to Google Drive. If an exemption was not granted within an organization, materials and feedback were processed through a SIM team analyst.

Meetings were conducted following Wisconsin’s Open Meeting Requirements with notices posted a minimum of 24 hours in advance. Space was made available to the general public and meeting minutes were documented on the Wisconsin SIM public website.<sup>219</sup>

## **3. VOICE OF THE CUSTOMER**

Consumer engagement was a top priority since the inception of the SHIP, and several options were considered for how to best move forward to build the most comprehensive plan with the patient at the center. Options considered include individually recruiting consumers with lived experience from outreach to facilitators, workgroup members and advisory panel member; utilizing patient advisory panels that a SHIP member organization might already have; creating a focus group that could be

accessed by all workgroups; or developing an approach in conjunction with the University of Wisconsin's Population Health Institute.

Part of what our team heard and understood when garnering feedback about the most appropriate process to engage consumers was that many people would not have resources like time or additional money for travel to meetings. While interacting with these stakeholders directly would have been preferred, Wisconsin's resources were also limited in terms of what could be offered to attract consumer participation. Instead, with help from the University of Wisconsin Population Health Institute, contacts from 16 different organizations that represented community health services and healthcare provider consumers or patients were identified. A letter was sent to each organization from the Department of Health Services Secretary Kitty Rhoades and SVC chairman Dr. John Toussaint asking for their participation in speaking on behalf of the populations that each serves. See Appendix 18 for a copy of the letter. The first meeting was held via conference call on August 31 to clarify each individual's purpose, what the SHIP hoped to receive from direct engagement and to leverage the theory of collective impact.

During and after the call, several organizations expressed interest in further discussing their involvement with the SHIP. Our Program Manager travelled to each of these organizations, met with the individuals and/or their Board Members, and discussed how to best align efforts with those of the SHIP, thus creating collective impact. Meeting with each organization individually gave the opportunity to determine ways in which to best represent the individuals they serve across the spectrum of health and healthcare based on our transformation model. It also provided an opportunity to elicit feedback on Wisconsin's goals, barriers to achieving the goals based on specific populations, and ideas of what "better" looked like as it related to clinic, community, and the patient.

#### **4. FEEDBACK AND ENGAGEMENT**

Broad stakeholders were able to follow the project in a number of ways. A Wisconsin State Innovation Models website was designed and set up through the Department of Health Services<sup>220</sup>. The website was updated on a bi-monthly basis and housed meeting agendas, meeting summaries, and various recordings and presentations. Resources pertaining to the development of the SHIP and each team also were found on the website. Anyone interested in the project who wished to be added to a mailing list was able to contact the team through the SIM email. Monthly Progress Reports also were sent out via email in addition to being posted to the public website. The reports contained information related to the SHIP's progress and team updates.

Report-out webinars also were presented every few months to stakeholders. They gave an opportunity for the team to present project updates as well as specific information as it pertained to the different workgroups. Attendees were given the opportunity to ask questions and receive live feedback or to follow up via email. The webinars also were made available on the public website.

Stakeholder feedback was essential throughout the development of the SHIP. There were several key points for which input was vital:



- **Determining Wisconsin's current state:** Interviews were conducted with key subject matter experts. Several organizations involved in health information technology and ongoing initiatives gave great perspective on the performance of our state. (See Appendices 19-21 for HIT related surveys )
- **Current Initiatives:** An online survey was sent to all workgroup and advisory panel members, with the request that they forward the survey to other organizations. The survey helped determine ongoing projects throughout the state and informed our Best and Better Practice step. (See Appendix 22 for Current Initiatives Survey)
- **Payment Models:** An online survey was sent to providers throughout Wisconsin to determine the current state of value-based reimbursement, to capture a baseline understanding from the provider perspective, and to understand the baseline percent of healthcare payments (measured in terms of dollars paid) that are currently being paid in fee-for-service alternatives that link payment to value. In addition, a different survey was sent to payers to discover areas of alignment between current approaches to payment and investment in health and healthcare transformation, and to establish a baseline of the percent of healthcare payments (measured in terms of dollars paid) that are currently being paid in fee-for-service alternatives that link payment to value. (See Appendix 23 and 24 payment model surveys)
- **Health Information Technology Infrastructure:** An online survey was distributed to organizations to understand how health information technology may or may not be used to make care and service better for the individuals they serve. The survey was used to gather information on person identification and matching, provider directories and notification services. (See Appendix 25 HIT Infrastructure Survey)

As part of the Monitoring and Evaluation process, an online survey tool was set up by an independent evaluator. The surveys were sent out at the conclusion of each workgroup meeting, several advisory panel meetings and broad stakeholder report outs in order to gather insight on the process from team members (See Appendix 26 for Workgroup and Advisory Panel survey template). All members were encouraged to complete it as soon as possible following each meeting. Feedback was managed through the evaluator, de-identified, and given to the SHIP team to determine whether processes needed to be improved. (See Appendix 27 for consolidated surveys from SHIP report outs) Many team members noted that there was quite a bit of survey fatigue around October. As a result, surveys were put on hold until the end of the project.

Prior to submitting the final State Health Innovation Plan, stakeholders and interested parties were invited to provide comments on the recommendations that came from each team's findings. Feedback was compiled and used as a resource for incorporating comments to the extent possible (See Appendix 28 for stakeholder feedback on draft SHIP). In addition, individuals were also invited to consider how their organization's efforts could align with the SHIP and to submit a letter of support for future activities, should they wish to do so.

## 5. LESSONS LEARNED

There were several challenges and lessons learned in the development of Wisconsin's State Health Innovation Plan. While the initial workgroups were created to have a diverse group of stakeholders, there was some difficulty in continued engagement throughout the process. Several workgroup members became unable to participate in the project due to unforeseen reasons. Underserved stakeholders, such as tribal representatives, were particularly difficult to engage as there were often multiple demands on those individuals.

One of the challenges Wisconsin discovered was that particular subject matter expertise was missing as it correlated to the selected populations. This was due in large part to not having the populations selected for transformation prior to determining team members. We've learned that it would be best to have predetermined populations in order to engage the appropriate stakeholders going forward.

While engaging consumers was considered early and often, determining how to best facilitate discussion with those particular individuals should have been established even earlier. The SHIP is directly focused on the patient; therefore having consumer input from the inception is vital. We found that several organizations were interested and committed their support and willingness to participate, especially those focused on our studied populations. Should the State Health Innovation Plan move forward to implementation, it would be helpful to have direct engagement with consumers in addition to the organizations that serve them.

The online feedback survey tool helped us determine that Advisory Panel members expected and wished to be utilized more. While several advisory panel meetings were held at key points in the project, it's evident that more updates and feedback opportunities are required to keep the interest of the stakeholders. Using the online survey tool also helped us realize that it was being administered too often as participation greatly decreased towards October. We learned that it would be best to send a survey at key points throughout the project as it relates to milestones.

Lastly, should Wisconsin receive additional funding opportunities, we would continue using a multi-stakeholder approach. It is evident that all stakeholder perspectives need to be taken into consideration. The public-private approach that Wisconsin used throughout the process added invaluable insight and an opportunity for organizations to learn from one another, as noted by many workgroup members.

## IX. Monitoring and Evaluation

The following section reviews, from an evaluation and program improvement perspective, the successes, challenges, and lessons learned over the SIM model design phase. Wisconsin's SHIP design phase is measured against benchmarks and sets of deliverables as outlined in: 1) the federal SIM design phase requirements, 2) Wisconsin's SIM funding proposal, and 3) the SHIP.

This monitoring and evaluation has been conducted throughout the design phase, by contracted advisors from the University of Wisconsin Population Health Institute. The federal SIM evaluation FOA and development guidance informed the methods, which were tailored to support a continuous quality improvement process while also promoting SHIP readiness for evaluation during a testing phase.

The CMS SIM-required deliverables for a Design Phase, in preparation for a Model Test Phase, call for the following:

1. Identification and documentation of expected outcomes for improvement of care delivery and value-based payments, population health and behavioral health improvements, HIT increased effectiveness and efficiencies, process and outcome measurement, and smarter healthcare spending
2. Document proposed value-based delivery and payment models, population and behavioral health interventions and improvement plans, HIT infrastructure and governance design plan, value measurement methodology definition and collection, retention, and reporting plan, and cost savings models, ROI, and actuarial analysis.

However, it became apparent part-way through the design phase that CMMI would not have funding available for a model test phase. This context substantially affects the evaluation results, as it affected Wisconsin's SHIP design evolution and final disposition. Wisconsin's SIM design phase remained subject to specific federal expectations for which implementation funding would not be readily available. So it is not surprising that Wisconsin sought an incremental approach, and did not adhere to or fully meet the standard expectations that would position it for rapid initiation of a model test.

The deliverables in Wisconsin's SHIP, in terms of a proposed transformation model, offer an alternative approach. Wisconsin's SHIP does not propose a specific care delivery or payment model for planned testing but, rather, a transformation process for achieving the desired future state for performance along several program elements, along with a menu of best and better practices for improving health and healthcare. The Wisconsin SHIP envisions a "backbone organization" supporting a peer-to-peer learning network and supporting the work of various community initiatives, generally driven by the private sector. Such initiatives would in effect "pilot" and launch SHIP-recommended efforts based on the concepts, technical assistance, and, possibly, resource support from the state-level backbone organization, ultimately resulting in collective impact.

The SHIP identified parameters for measurement, but does not provide expected statewide process and outcome measure targets related to health, healthcare, and spending.

The following table describes the Wisconsin SHIP response to specific SIM components and reviews the disposition of the elements as originally planned in the Wisconsin SIM funding proposal.

**Table IX.1 State Health System Innovation Plan: Federal Guidance and Wisconsin Response.**

Component	Present Y/N	Disposition Assessment
<p><b>Advance the health of the entire population</b></p>	Partial	<p>Wisconsin SHIP does not propose an “entire population” strategy but, rather, pilot efforts/collective impact strategy with specific population foci and fostering of local innovations that over time may be applied to broadly in attainment of the goals.</p>
<p><b>Leverage State Regulatory Authority</b>  A description of the state regulatory and policy levers available and any federal waiver or state plan amendment requirements and their timing to enable key strategies for transformation.</p> <p>Analyze levers available to the state for addressing the issues surfaced by information gathered from assessments and identified opportunities for improvement, whether through traditional functions such as public health, insurance regulation, employee benefits and Medicaid; or through other State departments and functions such as professional licensure/re-licensure standards, educational programs for health professionals, housing, labor, environment, agriculture, transportation, the prison system.</p>	No	<p>Wisconsin SHIP has not yet identified state policy and regulatory reforms within the programmatic considerations, given the decision to focus on private sector initiatives driven at the local level or via industry partners.</p> <p>Rather than centralized planning or promotion of enabling policy, the proposed SHIP central structure will be used for the following:</p> <ol style="list-style-type: none"> <li>1. Identifying complex problems of common concern</li> <li>2. Facilitating shared learning, discussion and decision making</li> <li>3. Identifying and disseminating best and better practices</li> <li>4. Enabling transformation through health information technology, value based payment models and transformation measurement</li> </ol> <p>Specific ways in which the organization will promote item #4, beyond description of desired future state, have not yet been identified and developed for the specific pilot initiatives or statewide.</p>

<p><b>Payment Reform and Strategy Alignment</b></p> <p>A health care delivery system transformation model(s) and value-based payment methodology;</p> <p>Identify current health care delivery systems and payment methodologies in the state and opportunities for improvement in each area;</p> <p>DHS will actively engage payers and purchasers to identify opportunities to align improvement priorities with value-based purchasing and payment strategies in the private sector as well as with Medicaid and the state employee health benefit program.</p>	<p>Partial</p>	<p>Wisconsin SHIP transformation model depends on a process of fostering local and community-level innovations, with intention toward building collective impact, rather than promoting a centralized model driven at the level of a state agency/agencies.</p> <p>The SHIP process had relatively active participation from the state Medicaid agency, although no specific purchasing strategy has been identified, beyond those already underway otherwise, that will be put to use to promote SHIP programming.</p> <p>The state ETF showed limited participation in the SHIP and has not identified a purchasing strategy change related to the SHIP.</p> <p>Payers engaged actively in the process, identified various approaches for payment reform, but did not identify shared strategies for the identified pilot initiatives or plans to engage in statewide alignment.</p>
<p><b>Quality Measure Alignment</b></p> <p>1) Advance a common set of statewide quality measures; Establish and analyze a focused set of quality and cost measures that will be used to support behavior, policy, payment, and practice changes</p> <p>2) Identify data and other infrastructure needs to support aligned implementation of measures by all stakeholders;</p> <p>3) Facilitate adoption of quality</p>	<p>Partial</p>	<p>Wisconsin SHIP provides goals and associated strategic focus areas developed in association with specific target conditions with intention to allow adoption for local/community use.</p> <p>Available data sources, process and resources for such data collection have not yet been identified.</p> <p>No specific measures or steps identified related to supply and modeling of workforce needs.</p>

<p>measures by a majority of the state's payers;</p> <p>4) Ensure measures are able to effectively support the Monitoring and Evaluation Plan</p> <p>Collect data to address current supply and modeling methods that allow for projections of future demand for health workforce.</p>		
<p><b>Alignment with Other Federal and State Efforts</b></p> <p>Describe how the plan aligns with other federal, state, regional and local innovation models</p>	Yes	<p>Wisconsin SHIP conducted a survey inventory to supplement existing knowledge. SIM proposal had identified that such efforts “are off to promising starts; however, all could be enhanced with focused efforts under the SIM to build participation by providers, payers, purchasers, and consumers, and to accelerate dissemination and adoption of best practices.”</p> <p>SHIP workgroup process documented and noted intention toward “best and better practice” and through its outlined transformation processes – community based pilots, shared learning, PDSA -- intends to further or accelerate such adoption.</p>
<p><b>How transformation will be organizationally and financially sustained</b></p>	No	<p>This remains to be determined in the absence of available SIM model test phase funding. Currently, the stakeholders are considering various opportunities to promote local efforts and an incremental approach.</p>
<p><b>HIT adoption and clear strategy for how the technological approach will be financed.</b></p> <p>Technical assistance and analytic support to ensure that available data can be transformed into actionable information at the point of care.</p>	Partial	<p>Wisconsin SHIP provides detailed description of desired future state. However, startup funding and a sustainable operation plan are not yet developed, nor a formal governance structure determined.</p>

## 1. DESIGN PROCESS, STAKEHOLDER ENGAGEMENT & COMMUNICATIONS

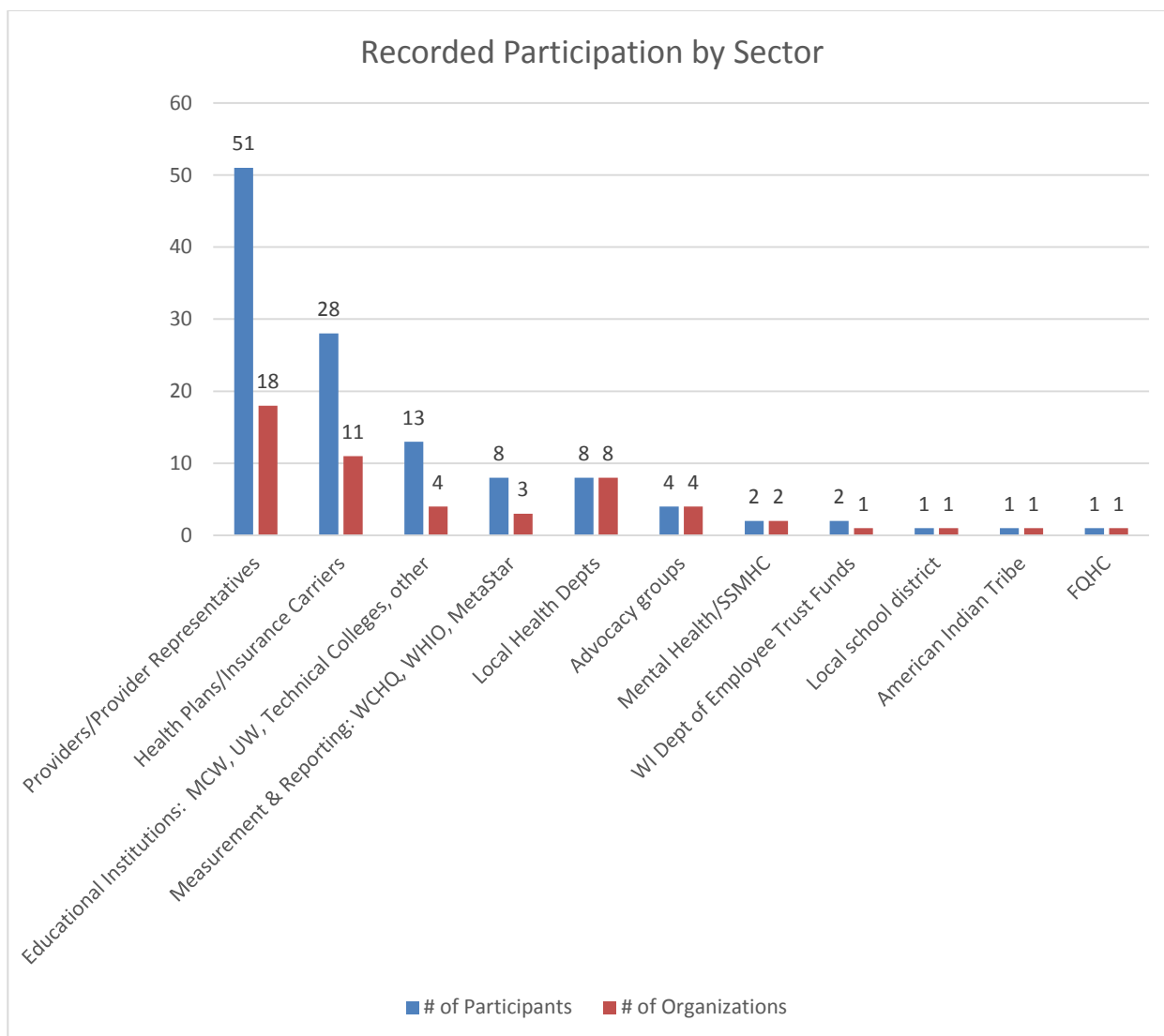
The Wisconsin SHIP process set out principles of inclusivity, transparency, and promotion of “candor with respect.” The monitoring and evaluation, along with ongoing quality improvement, processes, focused on the sectors, geographies, and populations involved, and the degree of their diversity. Consistent with federal guidance, the evaluators looked for presence and active participation from the following:

- State Government Agencies: Governor’s office, health, insurance, social services, mental health & substance abuse, developmental disabilities, office on aging, education, transportation, housing, tribal affairs, parks & recreation, economic development, labor and other relevant offices
- Regional and local government organizations (e.g. local public health departments, tribal representatives, patient advocacy groups, as applicable)
- Providers: hospitals, physicians, long term care organizations, organized delivery systems, academic medical centers, behavioral health providers, home health, hospice, community health workers
- Payers: commercial payers, Medicaid, state employee plans, Veteran’s Administration, self-funded plans
- Community organizations
- Patient advocacy organizations

At the SIM outset, a wide range of organizations demonstrated interest. Stakeholders primarily from within the health sector – providers, payers, public health interests and advocates – presented the initial energy for active participation, population workgroups, while a broader range of actors offered their names for the less structured advisory group commitment.

A broad base of stakeholders were provided monthly updates on the progress of the SHIP via monthly email. This mailing has 300 email addresses. The figure below depicts the organizations/sectors that had recorded participation across three all-SHIP webinar and Report-Out meetings. The number of unduplicated organizations, compared to the number of unduplicated individuals, provides a measure of the intensity of involvement by various groups.

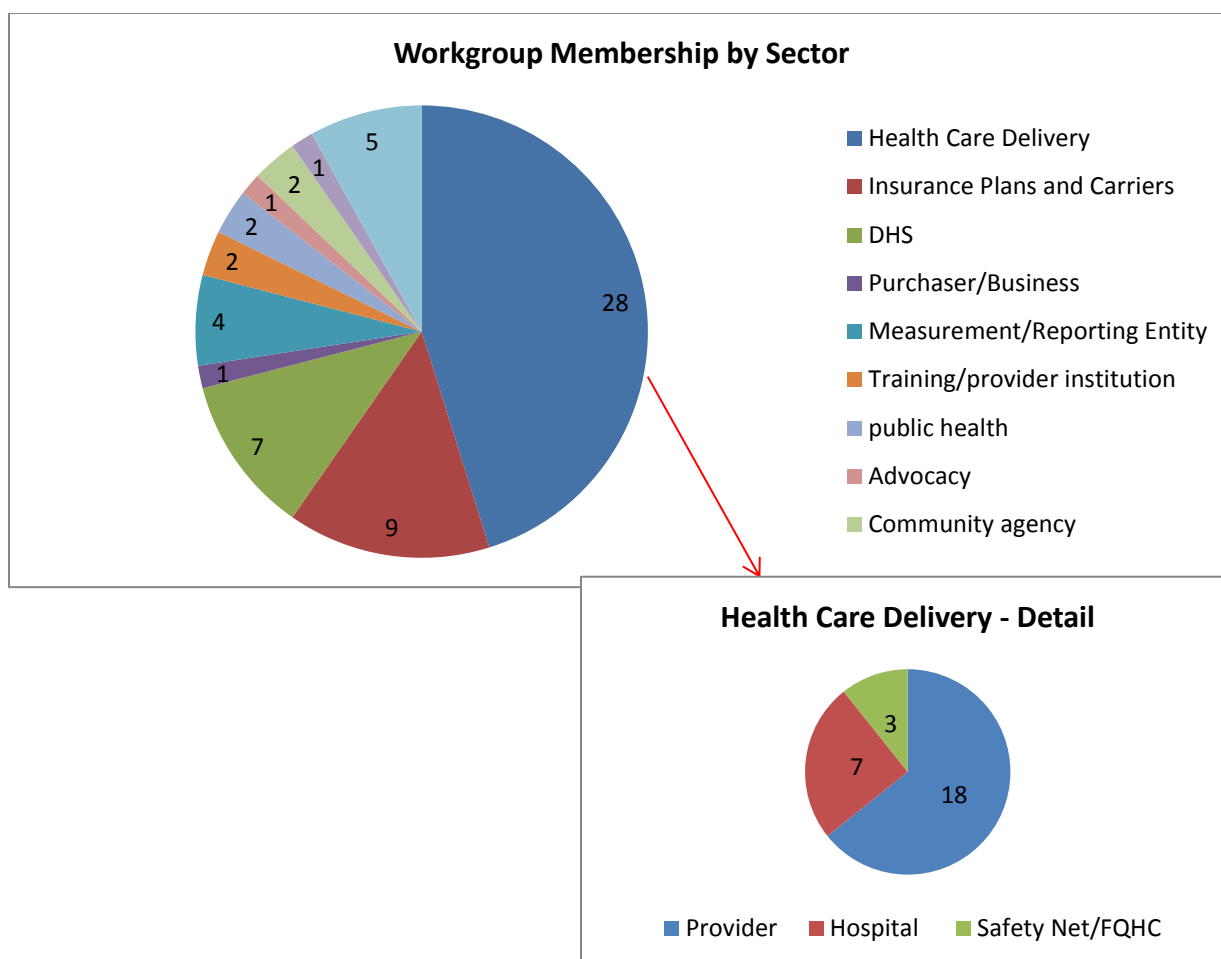
The meetings engaged 119 unduplicated individual participants representing 54 unduplicated organizations. Those organizations that had several staff persons participating in the SHIP might be considered heavily invested, while those that have few or no individuals show less engagement. These figures demonstrate that relative lack of representation and engagement from underserved communities, entities outside of the healthcare sector, and from consumer interests.



**Figure IX.1 – Recorded Participation by Sector.**

Workgroups, where the bulk of the SHIP-related deliberations occurred, show a similarly skewed participation by sector, as depicted in the following figures:





**Figure IX.2 – Workgroup Membership by Sector.**

### Provider Engagement

Wisconsin's SHIP grew from the provider-led Statewide Value Committee, and the SHIP process remained based in the strong interest and perspective of providers. Organized provider representatives include the Wisconsin Hospital Association, Wisconsin Medical Society, Wisconsin Nurses Association, Wisconsin Pharmacy Society, the Rural Wisconsin Health Cooperative. These groups, along with individual providers, show frequent and regular participation throughout the workgroups and Advisory Groups.

### Payer Engagement

Wisconsin has a highly pluralistic payer sector, with the most competitive private insurance industry in the nation. This presents challenges for engagement and in attaining a unified vision toward reform. That said, the representative voices of the payer sector that would indicate strong engagement include, from the public sector the Employee Trust Funds and Medicaid, and from the private sector, the Wisconsin Association of Health Plans and the Alliance of Health Insurers. These groups' officials show infrequent participation in workgroups and Advisory Groups. Representatives

from individual payer organizations, however, show membership and participation in workgroups and advisory groups. Generally, nearly half (8-10) of health plans doing business in Wisconsin show some degree of regular participation, while the remaining plans doing business in Wisconsin show little-to-no participation. Only one of the two statewide associations shows any staff participation in the SHIP, although it is possible that the other association relied on member participation to represent its group.

### Business/Purchaser Engagement

Wisconsin's major private purchasers did not become actively involved in the SHIP. Wisconsin Manufacturer and Commerce, which represents the state's major business interests shows no participation in workgroups and Advisory Group meetings. The Madison-based Employer Health Care Purchasing Alliance ("The Alliance") showed regular participation in the Transformation measurement workgroup and active contributions throughout the process, but a similar engagement was not demonstrated by Milwaukee's Business Health Care Group. Representatives from individual purchaser organizations also show infrequent membership and participation in workgroups and advisory groups.

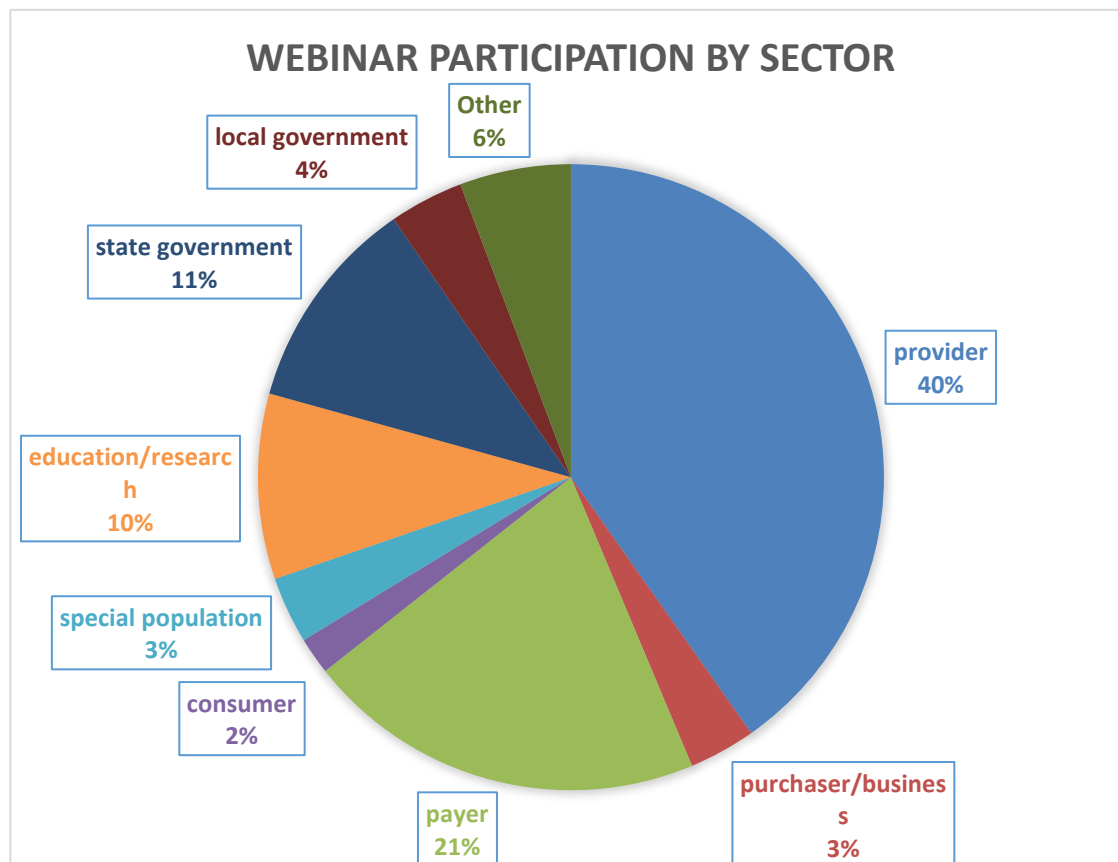


Figure IX.3 – Webinar Participation by Sector.

## Diversity of Engagement

The Wisconsin SIM process outlined in its federal funding proposal included the following:

- Identify where there are gaps in the SVC LC membership and/or SIM workgroup participation (e.g., tribes, consumers, behavioral health providers, and long-term care providers) to ensure a fully representative approach to designing Wisconsin's SHIP.
- Actively work to establish communication processes to ensure meaningful, culturally competent engagement by state departments, local officials, advocacy organizations, tribes, academic and training institutions, professional associations and community-based consumer organizations.
- Workgroups will include particularly populations disproportionately affected by tobacco use, obesity, diabetes, substance abuse and other conditions.
- Strategies include recruiting representatives to serve on SIM workgroups, meeting with representatives from these existing partners, disseminating surveys,, and holding regional listening sessions.

On July 24, 2015, the SHIP leaders, DHS Secretary Rhoades and SVC Chair Toussaint, sent a letter to a range of organizations that had not yet been engaged in the process but were identified as important voices for shaping the plan. The letter noted that the recipient has “played a unique role in Wisconsin’s healthcare innovation in the past through service, representation and engagement of the consumers” and that the “plan will be incomplete without the direct input of the consumers we all serve.” The letter requested “assistance in refining and executing the consumer engagement strategies that will be the most effective in obtaining the critical feedback.”

In early June, 2015, the evaluator had recommended an approach to engaging underserved populations and consumer groups, providing a list of contacts to the SHIP leadership. These included leadership of the Black Health Coalition, the Wisconsin Tribal Health Directors’ Association, the Milwaukee Consortium for Hmong Health, United Refugee Services, Centro Hispano, and others. These populations had not been engaged in the SHIP.

The SHIP leaders report that some meetings occurred at the tail end of the SHIP process, which provided opportunity to gain feedback on a completed plan. However, it must be noted that these perspectives had not informed to the development of the SHIP. The plan, therefore, may not appropriately reflect or capture the needs of these populations and communities. Of further concern: That many of these communities did not find reason to engage in this process, as evidenced by their lack of response to invitations for meeting, and higher level state leadership did not manage to bridge that divide.

This may reflect deep segregation between the perceived priorities and interests of those in the majority – who maintain virtually exclusive leadership in Wisconsin’s private and public sector health

care sectors -- and the state's often marginalized communities. That said, these same communities disproportionately experience the high health care needs and high cost impacts that the SHIP process aims to address.

**Table IX.2 Consumer Engagement Experience.**

Safety Net Providers and Service Delivery Supports	
Rural Wisconsin Health Cooperative	Visited 11/6/16 with RWHC Board Members
Wisconsin Primary Health Care Association	Visited during 1/21/16 board meeting
Milwaukee Healthcare Partnership	Per JB: No need to meeting; Joy is engaged through AP
Wisconsin Literacy	Presented via webinar 12/3/16 to WI Literacy Board Members
Center for Tobacco Research and Intervention	Received response that they will engage through AP (no further follow up)
Wisconsin Obesity Prevention Network	No Meeting/follow-up as of 12/18
Wisconsin Council on Mental Health	Visited 9/10/15 with Mental Health Council Legislative and Policy Committee
Wingra Family Medicine	Meeting conducted 1/13/16

Underserved/Special Populations	
Black Health Coalition of Wisconsin	No Meeting/follow-up
Black Women's Health Coalition	No Meeting/follow-up
Milwaukee Consortium for Hmong Health	No Meeting/follow-up
United Refugee Services of Wisconsin	No Meeting/follow-up
Wisconsin Tribal Health Directors	Visited 11/4/15 meeting
Centro Hispano Milwaukee	Did not respond to or invite follow-up
United Community Center	No meeting /declined participation

### **Conclusion: Limited Focus and Engagement Challenges**

Workgroup members, following each meeting through the first half of the SIM design year, received a brief survey to gauge their experience with the decision-making process and progress. Responses to these surveys show consistently high ratings on measures, with ratings averaging above 4 on a 5 point scale across six dimensions.

Open text comments, however, revealed ongoing concern by some participants about a traditionally clinical or healthcare focus:

- I believe there is a lack of viewing health as occurring more than within the institutional walls of clinics and hospitals.

- I have to admit feeling frustrated with the lack of healthcare systems not seeing beyond the clinical care setting as being part of the responsibility of obtaining improved population health care outcomes.
- We still need to focus more on community /systems related measures and strategies ( such as policies) on addressing structural aspects of what really defines health and health equity within the social, economic, and educational determinants of health.
- I am not convinced this is a group that I should be involved in given the amount of time and effort expended from my community setting that is so under resourced who doesn't have discretionary funding to support my travel, time, etc.to provide input on health care redesign....The lack of financial resources to support my participation on top of precious administrative time lost to carry on the organizational responsibilities given skeleton staff is a disparity in of itself... I make this comment to show the similarities ...of representation within our own work groups.

These concerns about the scope of the discussion, and how it relates to composition of the workgroups, reflects ongoing challenges the Wisconsin SHIP faced in assuring broad-based representation. These challenges include the following:

- Absence of regular participation by key state government agencies, particularly the state employee purchasing pool (Wisconsin Employee Trust Funds – ETF), and also the Wisconsin Office of the Commissioner of Insurance (OCI)
- Minimal engagement with often marginalized and high need populations including African American, Hispanic, Southeast Asian, and American Indian communities.
- Limited or absent participation from some key sectors such as education, business, housing, social services, and the faith community.
- Uneven participation by insurance carriers.
- No structured public input in the form of public hearings or town hall meetings held in local communities.

The workgroups did remain mindful of the need to address the needs of all state populations as it developed its goals, strategies, and recommendations. Recommendations directly pertain to the lives of such marginalized groups, including considerations related to literacy, cultural competency, patient activation, data collection, and social service availability. However, these recommendations have not been informed by the perspective of people who know the lived experiences of these community members. It thus remains unclear how and whether the SHIP recommendations may be relevant or well accepted.

## Final SIM Stakeholder Feedback

The final SIM webinar, conducted on January 22, 2016 to walk through the SHIP report and close the year's planning process, garnered 81 logged on listeners.

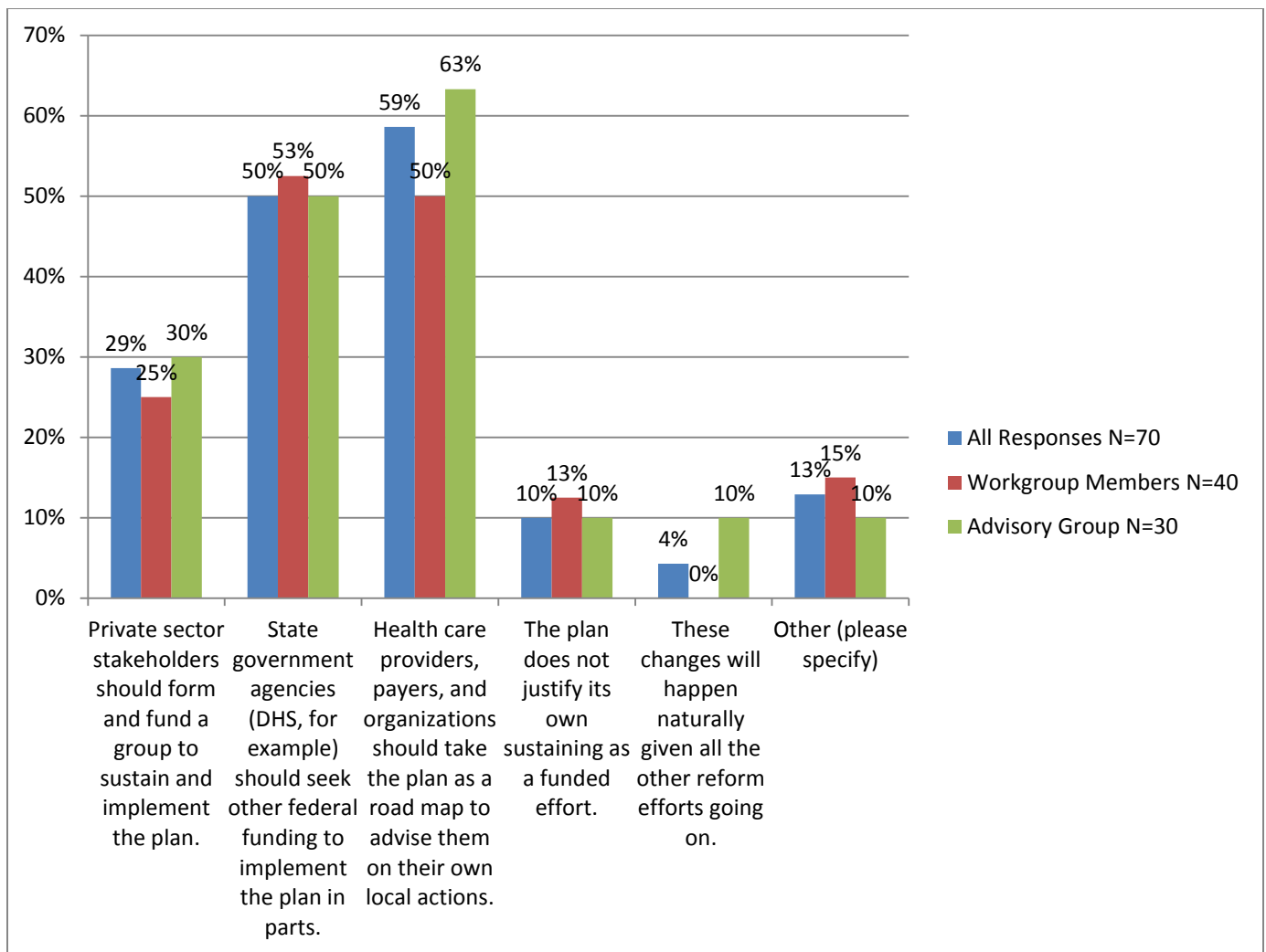
That same week, prior to the webinar, SIM Stakeholders had been invited to complete a survey providing final feedback on the process and the plan. The survey was sent to the "All Contacts" list (N=262). Over the course of a week recipients received the survey, two separate email reminders, and a final reminder during the January 22 webinar. The survey attained 78 respondents. Despite only a 30% response rate, it appears that respondents represent those engaged with the process, with two-thirds reporting that they participated in four or more meetings over the planning year. Details on the response are included as an Appendix 27 to this report.

**Table IX.3 Final SHIP Survey Respondent Distribution.**

Total Respondents	78
Workgroup Member	46
Advisory Group Member	30
Other	2

The survey yielded the following major findings:

- Rating whether SIM/SHIP put Wisconsin on a better track toward meeting its overall goals for health and health care, using a five point scale ranging from 1=No to 5=very much, responses yielded an average rating of 3.55.
- Rating various workgroup processes on a five point scale ranging from 1=Not effective and 5=Very effective, Workgroup members provided average ratings ranging from 3.7 to 4.70.
- Advisory Group members rated their experience lower, with average ratings on three components ranging from 2.92 to 3.08.
- About half of respondents report that the SHIP process and objectives are clear and understandable, while another 40% say they are "somewhat" clear and understandable.
- Most informative was the response to the following survey question, "What do you think should be the next steps, now that the SIM process has completed its federal funding period?"



**Figure IX.4 – Survey Response; Advancing the SHIP.**

- About one-third of respondents say the SHIP process “very much” met its objectives, while another half say it “somewhat” did so, 10% select “neither yes nor no,” and 5% select “not much” in whether the SHIP process met its objectives.
- About half of respondents believe that most of the needed stakeholders were engaged, while another half believe that only some of the needed stakeholders were engaged.
- Individuals and groups identified as missing from the process included employers, business, consumers, purchasers, payers, significant providers, community organizations, and law enforcement.
- Asked what should be the next steps, now that the SIM process has completed its federal funding period, about half of respondents said state government agencies should seek funding to move the plan forward; 30% said private sector stakeholders should form a structure and seek implementation funds; 60% said the plan should be used as a roadmap for local actions by health care providers, payers, and organizations, and 10% report that the plan does not justify its own sustaining as a funded effort.

A wide variety of open-text comments throughout the survey indicate detailed thought behind survey responses. Many expressed appreciation for focusing on collective impact and on “alignment of purchasers, payers and providers around a shared vision and goals”: “We have the resources and ideas, we just need to align them better and work together. We need statewide Collective Impact!” Others were more tempered in their assessment of this: “The ideas are good, but don't necessarily seem new. The collective impact principle may or may not take effect.”

Respondents appreciated the Wisconsin SHIP effort to address a wide and complex set of challenges:

- The scope of this endeavor clearly is very, very complex and detailed. The sense that a solid proposal and functional structure, going forward, has been accomplished.
- Comprehensive approach to a set of complex, often co-morbid conditions and this process/plan has developed the sort of template that has the ability to make a real positive impact.
- The area of integration of mental health and primary care is one about which I have a lot of interest and I think is critical to adequately addressing the workforce issues in the mental health area.

Others noted an interest in and appreciation for moving beyond the narrow health care focus: “I'd like to see more emphasis on social determinants of health, and how communities can come together to tackle the root causes of the extreme disparities in our state.”

Several respondents shared their concern that action would not be forthcoming: “While we identified opportunities and had good conversations, I worry about things actually getting implemented.” Another wrote specifically “I am skeptical that state government is invested in the SHIP and its implementation. The same may be said about the health plans/payers.”

This theme echoed from another respondent, who saw a process of balancing agendas: “This is a big undertaking that will take a while to gel. I do think bringing the group together must have promoted understanding and learning amongst certain groups. Unfortunately, groups are self-centered and I hope that eventually the good of the people of the state can be put ahead of individual corporations or professions.”

Finally, one respondent shared frustration at the conceptual nature of the plan: “The process was communicated in a very inaccessible language. There were no real life examples used in the process of describing the plan. Language was not plain language. It was very dry and didn't allow the average person to connect to it or grasp it in any active way.”



## 2. MONITORING AND EVALUATION PLAN: GOING FORWARD

The Wisconsin SHIP sets out two major goals:

- Goal 1: Optimize health and interrupt disease progression
- Goal 2: Make smarter investments to promote health and healthcare value.

Wisconsin's design phase focused on two specific populations: 18-64 adults with diabetes and hypertension and with diabetes and depression. The SHIP project team gathered baseline data for metrics, against which future progress may be measured. The workgroups explored a root cause analysis, considered current and future state scenarios, options for best and better practice, and potential data sources and metrics for assessing future progress.

CMS, in its evaluation guidance, calls for a systematic way to monitor and track state progress for the entire population, and all providers and payers. At a statewide level, a quantitative evaluation should assess the extent to which, over time, the state achieves its SIM-specific quantitative objectives, before and after SHIP implementation. Where possible and resources allow, efforts should be made to assess the effect of SHIP-specific efforts on these macro performance measures for each of the two SHIP goals, and the particular elements within the SHIP programming.

This will involve periodic tracking of near-term, proximal effects of SHIP-related payment, delivery, and organizational interventions. This approach to evaluation will promote continuous, real-time learning and facilitate timely response to unintended consequences and changing environmental and market conditions. In that sense, the evaluation will contribute to performance measurement and improvement as part of a "plan-do-study-adjust" (PDSA) cycle of innovation.

The specific nature of the evaluation, including use of administrative (claims and other) data, along with surveys, key informant interviewees, and site visits, will depend on each individual implementation strategy that gets adopted and fielded.

Wisconsin's SHIP does not anticipate assigning or adopting statewide or regional delivery or payment models, so it is not possible to propose a controlled statewide evaluation design to estimate the effects on health outcomes, quality of care, and health care costs. However, for those local or specific cases where SHIP-related or guided experiments occur, efforts should allow both process and impact evaluation, and a pre-post comparison design. In either case – statewide or local efforts – identified funding will be needed to support both implementation and proper evaluation.

### Process

Evaluation of progress toward each of the SHIP's two goals will require that the SHIP implementation team develop milestones to be used for tracking and accountability. A dashboard may then

document attainment of milestones and support public reporting of their progress.

Assessment of process-related changes outlined in the SHIP may involve both qualitative and quantitative elements.

Process measures include tracking the development of data systems, establishment and adoption of shared measures, provision of technical assistance, participation in training and learning collaboratives, program delivery data, in terms of service delivery and utilization, HIT adoption and activation, implementation of new policy or regulatory interventions. Such data may be collected via key informant interviews, document review, and surveys.

### **Outcomes**

Assessment of health- and cost-related outcomes will depend primarily on the use of quantitative methods and the use of administrative data.

Pre-post comparison evaluation design would help account for heuristic trends and other non-SIM programming, enabling attribution of the causal or additive effects of SHIP on these trends. Nonetheless, the extent to which individual SHIP-related efforts may plausibly be attributed to movement in statewide trends will remain limited in that the evaluation will rely heavily, if not exclusively, on observational data.

### **Health and Healthcare Transformation Measurement Goals and Strategies**

- Goal 1: Optimize health and interrupt disease progression
- Goal 2: Make smarter investments to promote health and healthcare value.

### **Potential Data Sources and Methods**

The Wisconsin SHIP's continuous performance improvement and evaluation effort will rely on ongoing state-based research, engaging and collaborating with individuals and organizations regularly involved in the collection and analysis.

### **Data Sources**

Collaborative integration of SIM performance measurement and evaluation will be needed within and among state government and private sector organizations. This will require commitment from the executive branch agencies, well-organized private and public sector partnerships backed by standing Business Associates Agreements and data use agreements, coupled with the development and maintenance of a cross-cutting evaluation capacity. Some of the data required may not be readily available, and will require proxy measures or imputation methods.

The Wisconsin state-based evaluation team will collaborate with the following state-based data

collection and supply agencies and organizations to secure access to needed data:

- Wisconsin Department of Health (DHS) includes Medicaid/SCHIP (BadgerCare) enrollment, utilization and HEDIS measures, chronic disease, health, disease control, vital statistics, health professions workforce surveys
- Wisconsin Department of Regulation and Licensing (R&L): Professional boards and workforce data
- Wisconsin Collaborative for Healthcare Quality (WCHQ): provider-reported metrics on shared quality measures, from clinical data (charts)
- Wisconsin Health Information Organization (WHIO): Multi-payer claims database
- Wisconsin Hospital Association (WHA): Hospital and health system care delivery, quality, and pricing information, workforce data
- Wisconsin Medical Society (WMS): Provider directory
- Wisconsin Nurses Association (WNA): Nursing supply and practice information
- Wisconsin Department of Employee Trust Funds (ETF): State employee purchasing pool, for over 250,000 members.
- Wisconsin Office of the Commissioner of Insurance (OCI): Health plan and insurance carrier data
- Wisconsin Association of Health Plans (WAHP): Wisconsin's provider-owned, state-based health plans
- UW Population Health Institute (UWPHI): aggregated county-based data on health, health care, and social determinants
- Wisconsin Office of Rural Health: rural provider and critical access hospital survey data

The table below delineates the various state-level focus of expertise and data sharing that is needed:

**Table IX.4 State-level focus of expertise and data sharing.**

<b>CMMI Transformation Vision</b>	<b>Domains</b>	<b>Organizations</b>
<i>Performance in quality and cost measures is consistently high</i>	Health services utilization, costs, and pricing	Medicaid, WHIO, WHA, ETF
<i>Over 80 percent of payments to providers from all payers are in fee-for-service alternatives that link payment to value</i>  <i>Providers across the state and across the care continuum participate in integrated or virtually integrated delivery models</i>	Health care quality structure process and outcomes	Medicaid, WCHQ, WHIO, WHA, MetaStar
<i>Every resident of the state has a primary care provider who is accountable both for the quality and for the total</i>	Population health measurement and	UW Population Health

<i>cost of their healthcare</i>  <i>Care is coordinated across all providers and settings</i>  <i>Providers leverage the use of health information technology to improve quality</i>  <i>Data are used to drive health system processes</i>	reporting	Institute, DHS
<i>Population health measures are integrated into the delivery system</i>	Public health prevention activities and performance	DHS
<i>There is a high-level of patient engagement and quantifiable results on patient experience</i>	Public and private plan enrollee patient experience	OCI, Medicaid, WAHP
<i>There is an adequate healthcare workforce to meet state residents' needs</i>  <i>Providers perform at the top of their license and board certification</i>	Health care workforce distribution and activity	DHS, R&L, WHA, WMS, WNA, ORH
<i>Every resident of the state has a primary care provider who is accountable both for the quality and for the total cost of their healthcare</i>	Health insurance and plan enrollment, distribution by population group, nature of coverage	DHS, Medicaid, OCI, CMS UWPPI

## Methods

Wisconsin SHIP has offered two sample pilots or use cases that could be implemented within the SHIP-developed framework and toward its stated goals. These pilots would be locally initiated and controlled, with technical – if not financial - support from the SHIP’s “backbone organization.” The examples:

1. Expand behavioral health and primary care integration
2. Patient engagement and activation (i.e. chronic disease self-management)

SHIP would seek to work with “a population/community that is already engaged in this work that would be well suited for SHIP consideration as an initial pilot opportunity.” Given this criterion, an evaluation would focus on whether and how the SHIP structure and process added value to the existing intention or effort.

The evaluation question relevant to these pilots: Does the Wisconsin SHIP lend or advance “Attributes of an Effective Health and Healthcare Transformation” to efforts either already

existing or otherwise expected to occur? The attributes named by the SHIP are as follows:

1) Speed, 2) Scale, 3) Spread, 4) Adaptive Alignment, and 5) Sustainability.

While the process for each pilot may be measured against these attributes, the Wisconsin SHIP theory of change holds that such local community efforts will result in collective impact to move statewide SIM-related health and cost goals.

The SHIP efforts will create a series of “natural experiments” in, for example, outcomes-based and value-based payment innovation, care delivery redesign (e.g., collaborative care, shared clinical information, bi-directional behavioral/physical health integration), performance measurement, and clinical and community linkages. An evaluation of these interventions would preferably include a pre-post comparison design, allowing analysis of the causal effect of certain SIM components on health outcomes. Measures should be tied to the specific programmatic interventions within the SHIP, with data collected as close as possible to the local geographic and population level as the intervention.

The health outcomes, cost, and resource use analyses should be based on annual data for both Medicaid and commercial pay patients. The Medicaid analysis can draw from the Wisconsin MMIS claims database or from WHIO, while commercial and, soon, Medicare utilization data are also available through WHIO.

In order to estimate the effect of the SHIP on the outcomes and health care cost experience of, for example, Medicaid members with physical and behavioral comorbidities, the evaluation could examine a time series of outcomes and costs before and after a SHIP intervention for these Medicaid members. A matched comparison (“control”) group of similar clients *not* affected by a SHIP intervention can be obtained, and a difference-in-differences (D-I-D), quasi-experimental design can be used to estimate the causal effect of the SHIP intervention on mortality and cost.

The matching algorithm to define the comparison group could use client demographics (age, gender), diagnoses, and geographic location) to develop a matched comparison sample. Geographic residence can be tied to measures of availability of behavioral and physical health providers, as well as census area, population-based measures of household income and educational status—all of which are important correlates of physical and behavioral health status and health services utilization.

In parallel, and as a cross-validation of the estimates from the D-I-D specification, the evaluators could deploy an interrupted time series (ITS) approach. The ITS design would estimate intervention effects by plotting time trends in morbidities and/or mortality and cost against specific time points at which either the “dose” of the innovation changes (e.g., as the intensity or the breadth of SHIP intervention), or the nature of the SHIP intervention is modified. If a significant upward or downward spike in morbidity, mortality or cost occurs at those time points—after adjusting for client demographics and other observable factors that influence morbidities/mortality or cost—then the effect is at least plausibly attributable to the SHIP intervention.

The evaluation team, working in concert with the SHIP leadership and implementation team, could balance the requirements of rigorous evaluation of the impact of SHIP with the need for rapid innovation, system transformation, and performance improvement. This will require a clear set of process performance measures for the SHIP intervention.

At this point, the SHIP has identified goals and strategies, and described a desired future state for transformation, but has not yet developed an implementation and operational plan. The table below reviews the strategies outlined by the Wisconsin SHIP, along with the CMS SIM Goals, and the potential evaluation approach for measuring, respectively, their implementation and attainment.

**Table IX.5 Evaluation Approach for Measuring Wisconsin SHIP Strategies.**

SIM Strategies	Measurement/Evaluation approach
<b>Strategy 1: Improve People’s Active Participation in Health and Healthcare</b>	<p>Survey providers to assess the use of the following approaches, along with structured pre-post comparison evaluations of specific SHIP-related use cases:</p> <ul style="list-style-type: none"> <li>▪ Patient Activation Measure (PAM), care facilitators, health coaches, nurse care managers, motivational interviewing, other patient engagement tools, workplace wellness initiatives.</li> </ul>
<b>Strategy 2: Improve Connection between Clinic and Community/Social Resources for People</b>	<p>Assess volume of 211 service calls, provider use of county-based 211 service, and awareness/use of AuntBertha.com resource for social and health supports.</p> <p>Assess use of clinic based care management services.</p>
<b>Strategy 3: Reduce Disparities Linked to Poor Health and Health Care Outcomes</b> Address health disparities and achieve health equity in terms of both risk factors and health outcomes.	<p>Segment/strategy all goal and strategy measures, where possible, by age, geography, payer, race, income level, educational level, gender, and sexual orientation.</p>
<b>Strategy 4: Expand Primary Care and Behavioral Health Integration</b> Expand access to clinical and community behavioral health services, including <ul style="list-style-type: none"> <li>• address workforce needs</li> <li>• enhance the use of telehealth</li> <li>• identify best practices</li> </ul> Identify barriers to sharing data across providers (including behavioral health providers in clinical and community settings)	<p>Survey provider, payer, and advocacy groups to document:</p> <ul style="list-style-type: none"> <li>▪ Trends in behavioral health workforce supply and distribution</li> <li>▪ Use of telehealth for behavioral health purposes</li> <li>▪ Extent of adoption of models of physical and behavioral health integration,</li> <li>▪ Changes in payment methods that incentivize better integration of physical and behavioral health care.</li> </ul>

access to care and a lack of care coordination between behavioral health and medical care.	
<b>SIM Goals</b>	
<p><b>Improve Population Health</b></p> <p>identify a menu of evidence-based or emerging strategies that have the potential to demonstrate improvement in health, quality of health care and decreased costs in three to five years and that are measurable at the state and local/regional level;</p> <p>Secure commitments from local and state leaders across all sectors to support implementation of a comprehensive plan for population health improvement; and</p> <p>Disseminate these priorities and recommended action strategies by engaging public and private sector stakeholders at the local and state level, including policymakers.</p>	<p><u>Outcome measures</u></p> <p>Prevalence and incidence rates for Diabetes, Hypertension, and Depression</p> <p>Complication rates of Renal Disease, Retinopathy, Stroke, and Amputation.</p> <p>Obesity, tobacco use, stress, alcohol use, and physical activity rates.</p> <p><u>Process</u></p> <p>Survey providers and payers to identify adoption of SHIP-specific programmatic initiatives.</p> <p>Pre- and post- comparison design of SHIP-specific initiatives.</p>
<p><b>Transform Payment and Delivery Systems</b></p> <p>Trend outcomes-based payment in public and commercial insurance plans</p>	<p>Survey Wisconsin state insurance carriers of the type and distribution of value-based payment arrangements.</p> <p>Generate descriptive analyses of trends in payment models and plan benefit designs over time, by characteristics of the payer (public, provider-owned commercial, other commercial), contracting provider organization (e.g., hospital or medical practice, practice size, specialty, location, ownership structure) and the insured entity (employer group by size, self-funded, partially self-funded, or fully insured).</p>
<b>Smarter Spending</b>	<p>Total cost of care (TCOC) and total resource use (TRU), using WHIO and Medicaid data</p> <p>Admissions and readmissions for ambulatory sensitive conditions.</p>

## Data Systems and Health Information Technology

Wisconsin's SIM proposal stated that "Wisconsin will use its convening authority to establish an overarching governance structure with sustainable infrastructure and defined scope of authority for state and privately funded health care organizations producing, collecting, sharing and using data through HIT." As with the other elements of the Wisconsin SHIP, the HIT plan is set out as a desired future state rather than an action plan for achieving a specific model. The table below reviews the CMS SIM design-phase elements and potential approaches to monitoring and evaluating their attainment:

**Table IX.6 Evaluation Approach for SIM Design Elements.**

<b>SIM Element</b>	<b>Measurement Data and Method</b>
Create incentives, policies, and other strategies to close the remaining gaps in existing data sets.	Number of data contributors to WHIO; Provision of pricing information to WHIO for TCoC analysis
Establish mechanisms to consolidate and streamline reporting, abstraction, and retrieval of clinical and administrative data for providers, payers, and purchasers.	Number and percentage of providers and payers participating in WISHIN or alternative statewide HIE.
Support expanded access to more comprehensive data with analytic services and supports, particularly for smaller provider practices.	Percentage of providers attaining and advancing in meaningful use measures.  Number and percentage of small and safety net providers participating in WCHQ and utilization WHIO data.
Link clinical, administrative and socioeconomic data to better identify cost-drivers, challenges and opportunities related to the targeted interventions.	Link Medicaid to EMR data through specific integrated delivery systems
Ensure coordination of effort across all existing statewide data assets.	Review of existing Business Associate Agreements and data sharing arrangements  Survey and interview to assess trends and barriers in sharing data across agencies in the public and private sector



## X. Operational and Sustainability Plan

Wisconsin recognizes that designing, implementing, and operationalizing statewide transformation as originally envisioned under the SIM Design and Test approach would have required a significant investment of federal funds as well as the ongoing commitment of state stakeholders to sustain the transformation. And given a significant investment to provide startup funding Wisconsin's SHIP could transform the state's healthcare system through rapidly scaling the implementation of the Health and Healthcare Transformation Model.

In consideration of an incremental approach that would utilize alternate funding sources, and based on the best/better practice(s) identified by the transformation teams included in Section VI, two recommendations were identified for further analysis of what would be required to pursue these strategies as initial implementation pilots, including how to connect the transformation recommendations to the essential enablers of measurement, payment, and health information technology included in Section VII. Please see Appendix 1 for a description of the recommended approach for advancing these specific initiatives.

In March 2016 members from the SHIP team will be engaging stakeholders that provided a SHIP letter of support in an exploratory meeting to discuss the proposed pilot initiatives and the steps necessary to establish the transformation network.

### 1. OPERATIONAL PLAN

In order to incrementally operationalize the SHIP through the identification of a limited number of pilot projects at start-up, the SHIP proposes the creation of a Peer-to-Peer Learning Network (P2PLN) composed of community<sup>221</sup> partners (payers, purchasers, community organizations, providers, consumers and applicable enabling organizations). The P2PLN would:

1. Use the recommendations and considerations identified by the SHIP Plan to initiate discussion and exchange of ideas across communities engaged in this activity including:
  - a. Community to clinic connection better practices
  - b. Clinical care best practice
  - c. Measurement
  - d. Health Information Technology
  - e. Payment models
2. Create learning opportunities for communities to visit one another to see how these concepts are playing out in local markets.
3. Capture and share observations and learnings with all members of the learning network to accelerate the spread of best and better practices faster (statewide alignment).
4. Conduct periodic evaluations (PDSA) to determine what is helping and what could be improved to promote scale and spread.

Understanding that a minimal amount of infrastructure would be needed to support the P2PLNs, a strategic leadership group and a backbone organization would also be established.

The *leadership group* would:

- Foster the development of a statewide learning community,
- Set a common agenda for change using SHIP methodologies and best/better practices as a base,
- Connect local community leaders to the Network Backbone Organization to identify shared topics/areas of concern related to achievement of improved health, healthcare value and smarter investment,
- Track progress of work using agreed-upon indicators,
- Interact with the backbone organization on strategy, community engagement, and shared measurement.

The *backbone organization* would:

- Organize and facilitate P2PLN member exchange of ideas, learnings and experience,
- Promote transparency, collaboration and shared resources among P2PLN members,
- Connect with and mentor local community leaders and local backbone organizations as needed to drive alignment and accelerated learning,
- Be a curator of best and better practices as identified and implemented by network members,
- Disseminate and educate network members on best and emerging better practices,
- Identify potential funding sources to support identified pilot projects.

The estimated start-up budget for year 1 is \$974,000 and would support a fulltime staff of four people including an Executive Director, a facilitator, a data/project analyst, a project coordinator/admin and all the associated marketing communications, facilities, supplies and travel needed to advance the pilot projects. Following are the estimated itemized start-up costs for year 1:

**Table X.1 – SHIP Year 1 Operating Budget**

<b>SHIP Administration &amp; Operations</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>
<b>Operating Revenues</b>					
Federal Funding					
CMS	\$ -	\$ -	\$ -	\$ -	\$ -
ONC	\$ -	\$ -	\$ -	\$ -	\$ -
CDC	\$ -	\$ -	\$ -	\$ -	\$ -
State Funding					
Federal Match	\$ -	\$ -	\$ -	\$ -	\$ -
State GPR	\$ -	\$ -	\$ -	\$ -	\$ -
Private Sector Funding					
Foundations	\$ -	\$ -	\$ -	\$ -	\$ -
Private Organizations	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Operating Revenue</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Operating Expenses</b>					
SHIP Leadership Group					
Staff Time	\$ -	\$ -	\$ -	\$ -	\$ -
Travel	\$ -	\$ -	\$ -	\$ -	\$ -
Lunch	\$ -	\$ -	\$ -	\$ -	\$ -
Facility Charges	\$ -	\$ -	\$ -	\$ -	\$ -
SHIP Backbone Administration					
Executive Director	\$ 289,386.24	\$ -	\$ -	\$ -	\$ -
Project Facilitator	\$ 217,817.60				
Project/Data Analysts	\$ 186,700.80	\$ -	\$ -	\$ -	\$ -
Project Coordinator/Admin	\$ 146,248.96	\$ -	\$ -	\$ -	\$ -
Marketing/Communications	\$ 85,571.20	\$ -	\$ -	\$ -	\$ -
Infrastructure/Facilities	\$ 48,206.00	\$ -	\$ -	\$ -	\$ -
Equipment/Supplies	\$ 27,600.00	\$ -	\$ -	\$ -	\$ -
Travel	\$ 7,880.00	\$ -	\$ -	\$ -	\$ -
<b>Total Operating Expenses</b>	<b>\$ 973,930.80</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Operating Income</b>	<b>\$ (973,930.80)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

The SHIP operating budget also acknowledges that additional funding sources may be available to support SHIP pilot projects including the potential enabling infrastructure funding (e.g. HIT). The SHIP backbone administration would be responsible to identify such funding.

Following are the SHIP Project Milestones for the first 3 years of operations.

*Phase I (Year 1) - Complete Operational Design & Launch Pilot Projects*

- Year 1 Q1/Q2 – Leadership and Backbone organization established
- Year 1 Q2 – Year 1 Funding Identified and Secured
- Year 1 Q3 - Statewide population priorities established and pilot projects identified
- Year 1 Q3 - Identification of initial local/community pilot project P2PLN members

- Year 1 Q4- Pilot Project(s) Transformation Model Design updated/completed (if different from SHIP)
  - Clinic/Community Care Delivery
  - Measurement
  - HIT
  - Payment Model(s)

#### *Phase II (Years 2-3) – Scale Existing Projects and Launch Additional Projects*

- Year 2 Q1 - Pilot Project(s) Transformation Model Launch
- Year 2 Q1 – PDSA Monitoring
  - Decision to continue for Year 2
  - Year 2 funding identified and secured
- Year 2 Q2 – Identify additional local/community participants and scale initial pilot projects statewide
- Year 2 Q2 – Identification of subsequent (e.g. round 2) local/community pilot project P2PLN members
- Year 2 Q3- Pilot Project(s) Transformation Model Design
  - Clinic/Community Care Delivery
  - Measurement
  - HIT
  - Payment Model(s)
- Year 2 Q4 - Pilot Project(s) Transformation Model Launch
- Year 2 Q4 – PDSA Monitoring

#### *Phase III (Years 3-5) – TBD*

- Year 3 Q1 – Scale subsequent pilot projects statewide

## **2. SUSTAINABILITY**

Regardless of implementation approaches (rapid scale versus incremental statewide) sustainability will need to be considered and evaluated for each health and healthcare stakeholder. Initial sustainable statewide transformation for payers and purchasers may be considered and evaluated based on the initial community investments they make from the expected savings they realize from improved health, a decrease in demand for healthcare services, and more efficient healthcare delivery. Likewise community and clinical providers who also make community investments will expect payers and purchasers to share expected savings as business and revenue models are adjusted to meet both increased and decreased demand for specific services. Patients/people will consider and evaluate sustainability based on the costs to adjust behaviors to support better health and their individual perspectives on what quality of life means to them.

Ultimate sustainability however requires that healthcare spending decreases such that the percentage of healthcare spending in federal and state budgets, operating budgets, and personal budgets also decreases once the transformation has been implemented.

Acknowledging and recognizing that transformational change may initially be resisted the SHIP's incremental community-based approach should allow stakeholders to establish shared goals and a common agenda for advancing the SHIP recommendations tailored to their community, knowing that the leadership and backbone organization from the learning network is there to support them and not to dictate a one-size-fits-all solution.

### **3. IMPLEMENTATION CONSIDERATIONS**

The SHIP team did not complete extensive analysis related to workforce analysis, financial analysis, and policy and regulator analysis. With respect to the proposed incremental community-based approach the SHIP teams acknowledged that all three of these areas would need to be evaluated based on the specific pilot initiatives that are selected.

For example, one of the pilot initiatives identified is the implementation of expanded behavioral health and primary care integration. Depending on the community(ies) identified, Wisconsin has a shortage of behavioral healthcare providers with significant shortage areas in the northern areas of the state. In light of this the pilot areas may need to evaluate strategies for overcoming workforce shortages and access to care, possibly through the use of tele health targeted services. This strategy may then in turn necessitate the evaluation of current state licensure requirements and possible regulatory changes. And finally this strategy may require providers to invest in new technology which would need to be factored into the startup investment costs for that community and also likely in a cost benefit analysis (CBA) and return on investment (ROI) where purchasers or payers are requested to contribute.

As it relates specifically to workforce analysis the SHIP team identified several current reports that can be leveraged for the pilot projects, see Appendices 30-34. In regards to financial analysis the SHIP team obtained actuarial modeling and budget information from a SIM model test awardee that provides valuable insight into the development of a financial model that may be applied to the identified pilot initiatives.

## XI. Appendices

Following are the list of appendices included in the Wisconsin SHIP. To allow for distribution of the report via email and recognizing that partner and stakeholder organizations may have document size limitations on their respective mail servers, all appendices can be found on the SHIP web site at the following ; <https://www.dhs.wisconsin.gov/sim/appendices.htm>

Appendix 1 - SHIP Pilot Indicatives

Appendix 2 – SHIP Letters of Alignment

Appendix 3 – SHIP Team Listing

Appendix 4 – SHIP In Kind Donations

Appendix 5 – Key Findings Report (KFR)

Appendix 6 – Data Briefing Summary (DBS)

Appendix 7 – Wisconsin State Profile

Appendix 8 - Current Measures Inventory

Appendix 9 - Recommended Measures by Goal

Appendix 10 - Payment Models Analysis

Appendix 11 Other State Innovation Models (SIM) State Approaches

Appendix 12 - Medicare Analysis

Appendix 13 – Health Information Technology (HIT) Current State

Appendix 14 – Health Information Technology (HIT) Shared Gap ID Analysis

Appendix 15 – Health Information Technology (HIT) Technical Assistance (TA) Discussion from 11/17 Meeting

Appendix 16 – Executive Sponsor Request for Support Letter

Appendix 17 – Workgroup/Advisory Panel Meeting Schedule

Appendix 18 – Executive Sponsor Request for Consumer Engagement Letter

Appendix 19 – Health Information Technology (HIT) Current State survey

Appendix 20 – Health Information Technology (HIT) Long Term Care (LTC) Provider Survey

Appendix 21 – Health Information Technology (HIT) Behavioral Health (BH) Provider Survey

Appendix 22 - Current Initiatives survey

Appendix 23 - Payment Models Survey

Appendix 24 - Payment Initiatives Survey

Appendix 25 – Health Information Technology (HIT) Infrastructure Survey

Appendix 26 - Workgroup/Advisory Panel Meeting Survey

Appendix 27 - Stakeholder Survey Feedback

Appendix 28 – Stakeholder Feedback on Draft SHIP

Appendix 29 – SHIP Organizational Chart

Appendix 30 - Wisconsin Hospital Association 2015 Workforce Report

Appendix 31 - Linking Interprofessional Workforce Development and Practice Transformations

Appendix 32 - Milwaukee County Outpatient Behavioral Health Capacity Assessment

Appendix 33 - Health Works Northwest Workforce Needs Assessment Report

Appendix 34 – Wisconsin RN Survey 2014 Report

## XII. References/Endnotes

<sup>1</sup> Source: County Health Rankings Model.

<sup>2</sup> Source: ThedaCare Center for Healthcare Value (John Toussaint and/or Center blog post)

<sup>3</sup> Source: Stanford Social Innovation Review, *Channeling Change: Making Collective Impact Work*; January 2012. Available at: [http://ssir.org/articles/entry/channeling\\_change\\_making\\_collective\\_impact\\_work](http://ssir.org/articles/entry/channeling_change_making_collective_impact_work).

Content for both graphics is in this article.

<sup>4</sup> Healthiest Wisconsin 2020. <https://www.dhs.wisconsin.gov/hw2020/index.htm>

<sup>5</sup> Making Wisconsin the Healthiest State. <https://uwphi.pophealth.wisc.edu/programs/match/healthiest-state/index.htm>

<sup>6</sup> County Health Rankings <http://www.countyhealthrankings.org/>

<sup>7</sup> <http://uwphi.pophealth.wisc.edu/publications/other/wisconsin-health-trends-2014-progress-report.pdf>

<sup>8</sup> Assessing and improving community health in Wisconsin. <http://www.improvingwihealth.org/>

<sup>9</sup> Institute for Health Metrics and Evaluation. The State of US Health: Innovations, Insights, and Recommendations from the Global Burden of Disease Study. Seattle, WA: IHME, 2013.

<sup>10</sup> Centers for Disease Control and Prevention, National Center for Health Statistics. Compressed Mortality File 1999-2013 on CDC WONDER Online Database, released October 2014. Data are from the Compressed Mortality File 1999-2013 Series 20 No. 2S, 2014, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at <http://wonder.cdc.gov/cmf-icd10.html> on Aug 12, 2015 10:21:48 AM

<sup>11</sup> Wisconsin Department of Health Services. The Epidemic of Chronic Disease in Wisconsin, 2011 Jan, (Available at: <https://www.dhs.wisconsin.gov/publications/p0/p00238.pdf>; Accessed December 2015)

<sup>12</sup> AOD Partnership: <http://aodpartnership.org/>

<sup>13</sup> Wisconsin Department of Health Services; Sexually Transmitted Disease in Wisconsin, 2013:

<https://www.dhs.wisconsin.gov/publications/p0/p00412-2013.pdf>

<sup>14</sup> County Health Rankings

<sup>15</sup> County Health Rankings

<sup>16</sup> National Ambulatory Medical Care Survey, 2011-12

<sup>17</sup> National Provider Identification data file via County Health Rankings, 2014

<sup>18</sup> HRSA Data Warehouse; Wisconsin Primary Care Program – Division of Public Health

<sup>19</sup> <http://www.americashealthrankings.org/reports/annual>

<sup>20</sup> <http://www.commonwealthfund.org/publications/fund-reports/2014/apr/2014-state-scorecard>

<sup>21</sup> WCHQ Measures at a Glance

<sup>22</sup> HEDIS Summary of Measures 2016, National Quality Forum Measures

<sup>23</sup> National Healthcare Quality and Disparities Report, AHRQ

<sup>24</sup> Data.gov via County Health Rankings, 2011-2012

<sup>25</sup> National Assessment of Adult Literacy, National Center for Education Statistics, 2003

<http://www.centralwisconsinliteracycouncil.org/literacy-facts/> - more literacy facts (some specific to minority populations)

<sup>26</sup> Wisconsin Information Network for Successful Schools (WINSS) from Department of Public Instruction, via County Health Rankings, 2014

<sup>27</sup> American Community Survey, 5-year estimates via County Health Rankings, 2009-2013

<sup>28</sup> Small Area Income and Poverty Estimates via County Health Rankings, 2013

<sup>29</sup> (County Health Rankings – map shows ombre of air quality from best in north along UP to worst closer to Mpls and Chicago/urban concentrations).

CDC Wonder environmental data, 2011

<sup>30</sup> EPA Safe Drinking Water Information System, FY2013-2014

<sup>31</sup> Comprehensive Housing Affordability Strategy (CHAS) data, 2007-2011

<sup>32</sup> American Community Survey, 5-year estimates

<sup>33</sup> American Community Survey, 5-year estimates, 2009-2013

<sup>34</sup> Stanford Social Innovation Review, *Collective Impact*, Winter 2011. Available at:

[http://ssir.org/articles/entry/collective\\_impact](http://ssir.org/articles/entry/collective_impact).

<sup>35</sup> Diabetes mellitus refers to a group of diseases that affect how your body uses blood sugar (glucose). Glucose is vital to your health because it's an important source of energy for the cells that make up your muscles and tissues. It's also your brain's main source of fuel. If you have diabetes, no matter what type, it means you have too much glucose in your blood,



---

although the causes may differ. Too much glucose can lead to serious health problems. Chronic diabetes conditions include type 1 diabetes and type 2 diabetes. Mayo Clinic, Diseases and Conditions, Diabetes. Available at:

<http://www.mayoclinic.org/diseases-conditions/diabetes/basics/definition/con-20033091>

<sup>36</sup> Hypertension is a common condition in which the long-term force of the blood against your artery walls is high enough that it may eventually cause health problems, such as heart disease. Blood pressure is determined both by the amount of blood your heart pumps and the amount of resistance to blood flow in your arteries. The more blood your heart pumps and the narrower your arteries, the higher your blood pressure. You can have high blood pressure (hypertension) for years without any symptoms. Even without symptoms, damage to blood vessels and your heart continues and can be detected. Uncontrolled high blood pressure increases your risk of serious health problems, including heart attack and stroke. High blood pressure generally develops over many years, and it affects nearly everyone eventually. Fortunately, high blood pressure can be easily detected. And once you know you have high blood pressure, you can work with your doctor to control it. Mayo Clinic, Diseases and Conditions, High blood pressure (Hypertension). Available at:

<http://www.mayoclinic.org/diseases-conditions/high-blood-pressure/basics/definition/con-20019580>

<sup>37</sup> Type 1 diabetes is a chronic condition in which the pancreas produces little or no insulin, a hormone needed to allow sugar (glucose) to enter cells to produce energy. Various factors may contribute to type 1 diabetes, including genetics and exposure to certain viruses. Although type 1 diabetes usually appears during childhood or adolescence, it also can begin in adults. Despite active research, type 1 diabetes has no cure. With proper treatment, people with type 1 diabetes can expect to live longer, healthier lives than did people with type 1 diabetes in the past. Mayo Clinic, Diseases and Conditions, Type 1 Diabetes. Available at: <http://www.mayoclinic.org/diseases-conditions/type-1-diabetes/basics/definition/con-20019573>

<sup>38</sup> Type 2 diabetes is a chronic condition that affects the way your body metabolizes sugar (glucose), your body's important source of fuel. With type 2 diabetes, your body either resists the effects of insulin — a hormone that regulates the movement of sugar into your cells — or doesn't produce enough insulin to maintain a normal glucose level. More common in adults, type 2 diabetes increasingly affects children as childhood obesity increases. There's no cure for type 2 diabetes, but you may be able to manage the condition by eating well, exercising, and maintaining a healthy weight. If diet and exercise aren't enough to manage your blood sugar well, you also may need diabetes medications or insulin therapy. Mayo Clinic, Diseases and Conditions, Diabetes, Type 2 Diabetes. Available at: <http://www.mayoclinic.org/diseases-conditions/type-2-diabetes/basics/definition/con-20031902>

<sup>39</sup> Depression is a mood disorder that causes a persistent feeling of sadness and loss of interest. Also called major depressive disorder or clinical depression, it affects how you feel, think, and behave and can lead to a variety of emotional and physical problems. You may have trouble doing normal day-to-day activities, and sometimes you may feel as if life isn't worth living. Depression may require long-term treatment. Mayo Clinic, Diseases and Conditions, Depression. Available at: <http://www.mayoclinic.org/diseases-conditions/depression/basics/definition/con-20032977>.

<sup>40</sup> Hibbard J and Green, J. What The Evidence Shows About Patient Activation: Better Health Outcomes And Care Experiences; Fewer Data On Costs. Health Aff February 2013 vol. 32 no. 2 207-214.

Hibbard J and Gilbert H. Supporting People to Manage Their Health: An introduction to patient activation. The King's Fund. May 2014

[Insignia Health-Patient Activation Measurement Tools](#)

<sup>41</sup> Family and Social Support. <http://www.countyhealthrankings.org/our-approach/health-factors/family-and-social-support>

<sup>42</sup> National Diabetes Prevention Program <http://www.cdc.gov/diabetes/prevention/>

<sup>43</sup> Diabetes Prevention Program. <http://www.niddk.nih.gov/about-niddk/research-areas/diabetes/diabetes-prevention-program-dpp/Pages/default.aspx>.

<sup>44</sup> CDC. Diabetes Prevention Resources. [http://www.cdc.gov/diabetes/prevention/resources\\_hcp.htm](http://www.cdc.gov/diabetes/prevention/resources_hcp.htm)

<sup>45</sup> County Health Rankings & Roadmaps. Workplace Obesity Prevention Initiatives.

<http://www.countyhealthrankings.org/policies/worksites-obesity-prevention-interventions>

<sup>46</sup> County Health Rankings & Roadmaps. Workplace Obesity Prevention Initiatives.

<http://www.countyhealthrankings.org/policies/worksites-obesity-prevention-interventions>

<sup>47</sup> CDC. Stairwell to Better Health <http://www.cdc.gov/nccdphp/dnpao/hwi/toolkits/stairwell/index.htm>

<sup>48</sup> QuadMed: <http://quadmedical.com/our-approach/>

<sup>49</sup> Wisconsin Department of Health Services, Worksite Wellness Resource Kit: <https://www.dhs.wisconsin.gov/physical-activity/worksites/kit.htm>

- 
- <sup>50</sup> Centers for Disease Control and Prevention, Workplace Health Promotion: <http://www.cdc.gov/workplacehealthpromotion/>
- <sup>51</sup> WorkWell NC: <http://workwellnc.com/>
- <sup>52</sup> Hibbard J and Gilbert H. Supporting People to Manage Their Health: An introduction to patient activation. The King's Fund. May 2014
- <sup>53</sup> Partnership for Patients Initiative. Centers for Medicare and Medicaid Services.
- <sup>54</sup> PeaceHealth's Team Fillingame Uses Patient Activation Measure to Customize the Medical Home
- <sup>55</sup> Hibbard J and Green, J. What The Evidence Shows About Patient Activation: Better Health Outcomes And Care Experiences; Fewer Data On Costs. Health Aff February 2013 vol. 32 no. 2 207-214.
- Hibbard J and Gilbert H. Supporting People to Manage Their Health: An introduction to patient activation. The King's Fund. May 2014
- [Insignia Health-Patient Activation Measurement Tools](#)
- <sup>56</sup> Hibbard J and Gilbert H. Supporting People to Manage Their Health: An introduction to patient activation. The King's Fund. May 2014
- <sup>57</sup> Partnership for Patients Initiative. Centers for Medicare and Medicaid Services.
- <sup>58</sup> PeaceHealth's Team Fillingame Uses Patient Activation Measure to Customize the Medical Home
- <sup>59</sup> [Insignia Health-Patient Activation Measurement Tools](#)
- <sup>60</sup> [Insignia Health-Flourish](#)
- <sup>61</sup> Burke, Robert and Eileen Grady. Group Visits Hold Great Potential For Improving Diabetes Care And Outcomes, But Best Practices Must Be Developed. <http://content.healthaffairs.org/content/31/1/103.full>
- <sup>62</sup> Jhagroo, Allan. Group Visits in Chronic Disease Management. <http://videos.med.wisc.edu/videos/47418>
- <sup>63</sup> Jhagroo, Allan. Group Visits in Chronic Disease Management. <http://videos.med.wisc.edu/videos/47418>
- <sup>64</sup> Diabetes Management: Group health appointments. <http://www.froedtert.com/employers/population-health-management/diabetes-management>
- <sup>65</sup> AHRQ. Care Coordination. <http://www.ahrq.gov/professionals/prevention-chronic-care/improve/coordination/index.html>
- <sup>66</sup> Community Guide. Disease Management <http://www.thecommunityguide.org/diabetes/diseasemgmt.html>, Case Management <http://www.thecommunityguide.org/diabetes/casemgmt.html>
- <sup>67</sup> Community Guide. Disease Management <http://www.thecommunityguide.org/diabetes/diseasemgmt.html>
- <sup>68</sup> Community Guide. Diabetes Case Management <http://www.thecommunityguide.org/diabetes/casemgmt.html>
- <sup>69</sup> County Health Rankings & Roadmaps. Electronic Health Information Exchange. <http://www.countyhealthrankings.org/policies/electronic-health-information-exchange>
- <sup>70</sup> Sobel et al. Chronic Disease Self-Management Program: From Development to Dissemination. [http://www.commonwealthfund.org/usr\\_doc/clinical\\_disease\\_self\\_management.pdf](http://www.commonwealthfund.org/usr_doc/clinical_disease_self_management.pdf)
- <sup>71</sup> Ritter et al. Effects of chronic disease self-management programs for participants with higher depression scores: secondary analyses of an on-line and a small-group program. <http://www.ncbi.nlm.nih.gov/pubmed/?term=Effects+of+chronic+disease+self-management+programs+for+participants+with+higher+depression+scores%3A+secondary+analyses+of+an+on-line+and+a+small-group+program>
- <sup>72</sup> Wisconsin Institute for Healthy Aging. Living Well. <https://wihealthyaging.org/living-well>
- <sup>73</sup> County Health Rankings and Roadmaps. Text message-based health interventions. <http://www.countyhealthrankings.org/policies/text-message-based-health-interventions>
- <sup>74</sup> County Health Rankings and Roadmaps. Text message-based health interventions. <http://www.countyhealthrankings.org/policies/text-message-based-health-interventions>
- <sup>75</sup> Gurol-Urganci et al. Mobile phone messaging reminders for attendance at healthcare appointments. <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD007458.pub3/abstract>
- <sup>76</sup> Smokefree.gov
- <sup>77</sup> Freedom from Smoking Online: <http://www.ffsonline.org/>
- <sup>78</sup> Ex: <http://www.becomeanex.org/>
- <sup>79</sup> Tech and Aging: <http://toolkit.techandaging.org>

- 
- <sup>80</sup> Accountable Communities Health Model <https://innovation.cms.gov/initiatives/ahcm/>
- <sup>81</sup> County Health rankings & Roadmaps. Alcohol Screening and Brief Intervention. <http://www.countyhealthrankings.org/policies/alcohol-screening-and-brief-intervention>
- <sup>82</sup> County Health Rankings. Health Care Provider Reminder Systems- Tobacco Cessation. <http://www.countyhealthrankings.org/policies/health-care-provider-reminder-systems-tobacco-cessation>
- <sup>83</sup> U.S. Preventive Taskforce. Published Recommendations. <http://www.uspreventiveservicestaskforce.org/BrowseRec/Index>
- <sup>84</sup> HungerCare. <http://www.hungercare.org/>
- <sup>85</sup> [University of Wisconsin's Center for Tobacco Research](#)
- <sup>86</sup> County Health Rankings. Computerized clinical decision support systems. <http://www.countyhealthrankings.org/policies/computerized-clinical-decision-support-systems-cdss>
- <sup>87</sup> HungerCare Resources: <http://www.hungercare.org/provider-resources>
- <sup>88</sup> Maine Equality Counts. Community Care Teams. <https://www.mainequalitycounts.org/page/2-654/community-care-teams>
- <sup>89</sup> Agency for Healthcare Research and Quality: <https://innovations.ahrq.gov/profiles/community-health-navigators-use-pathways-model-enhance-access-health-and-social-services>
- <sup>90</sup> Health Leads: <https://healthleadsusa.org/what-we-do/strategy-impact/>
- <sup>91</sup> Kodjak, Alison. A Hospital Reduces Repeat ER Visits By Providing Social Workers. [http://www.npr.org/sections/health-shots/2015/10/23/451154605/a-hospital-reduces-repeat-er-visits-by-providing-social-workers?utm\\_source=facebook.com&utm\\_medium=social&utm\\_campaign=npr&utm\\_term=nprnews&utm\\_content=2049](http://www.npr.org/sections/health-shots/2015/10/23/451154605/a-hospital-reduces-repeat-er-visits-by-providing-social-workers?utm_source=facebook.com&utm_medium=social&utm_campaign=npr&utm_term=nprnews&utm_content=2049)
- <sup>92</sup> Cambridge Health Alliance: <http://www.challiance.org/Main/Home.aspx>
- <sup>93</sup> 2-1-1. Benefits. <http://www.211us.org/benefits.htm>
- <sup>94</sup> Aunt Bertha: <https://www.auntbertha.com/v1>
- <sup>95</sup> County Health Rankings & Roadmaps. Electronic Health Information Exchange. <http://www.countyhealthrankings.org/policies/electronic-health-information-exchange>
- <sup>96</sup> Access Community Health Centers (Access) Integrated Primary Care Consulting Psychiatry Toolkit <http://www.hipxchange.org/Access>
- <sup>97</sup> Institute for Clinical Systems Improvement [https://www.icsi.org/health\\_initiatives/mental\\_health/diamond\\_for\\_depression/](https://www.icsi.org/health_initiatives/mental_health/diamond_for_depression/)
- <sup>98</sup> Screening, Brief Intervention, And Referral To Treatment (SBIRT): <http://www.samhsa.gov/sbirt/about>
- <sup>99</sup> WI DHS Trauma-Informed Care <https://www.dhs.wisconsin.gov/tic/index.htm>
- <sup>100</sup> WI DHS Trauma-Informed Care- Collaboration <https://www.dhs.wisconsin.gov/tic/collaboration.htm>
- <sup>101</sup> Access Community Health Centers <https://innovations.ahrq.gov/profiles/integration-behavioral-health-team-and-consulting-psychiatrist-primary-care-enhances-access>
- <sup>102</sup> <http://integrationacademy.ahrq.gov/>
- <sup>103</sup> University of Massachusetts Medical School:
- <sup>104</sup> Camden Partnership <https://www.camdenhealth.org/programs/health-information-exchange/>
- <sup>105</sup> County Health Rankings; Improving Health Literacy <http://www.countyhealthrankings.org/policies/interventions-improve-health-literacy>
- <sup>106</sup> CDC National Health Plan to Improve Health Literacy <http://www.cdc.gov/healthliteracy/planact/national.html>
- <sup>107</sup> Centers for Disease Control and Prevention: <http://www.cdc.gov/healthliteracy/index.html>
- <sup>108</sup> Wisconsin Health Literacy [http://wisconsinliteracy.org/what\\_we\\_do/health-literacy.html](http://wisconsinliteracy.org/what_we_do/health-literacy.html)
- <sup>109</sup> County Health Ranking Culturally Adapted Healthcare <http://www.countyhealthrankings.org/policies/culturally-adapted-health-care>
- <sup>110</sup> Robert Wood Johnson Foundation Finding Answers Project <http://www.solvingdisparities.org/>
- <sup>111</sup> Solving Disparities Program [http://www.solvingdisparities.org/sites/default/files/BestPractices\\_Landscape\\_0.pdf](http://www.solvingdisparities.org/sites/default/files/BestPractices_Landscape_0.pdf)
- <sup>112</sup> University of Wisconsin Population Health Institute; *Wisconsin's Health Care Quality: Among the Best...and Among the Worst*; November 2012: <https://uwphi.pophealth.wisc.edu/publications/issue-briefs/issueBriefv11n02.pdf>
- <sup>113</sup> University of Wisconsin; Cultural Competence & Diverse Populations: <http://researchguides.ebling.library.wisc.edu/cultural-competence>

- 
- <sup>114</sup> Cultural Competence Training <http://www.countyhealthrankings.org/policies/cultural-competence-training-health-care-professionals>
- <sup>115</sup> Culturally Competent Care [https://www.thinkculturalhealth.hhs.gov/Content/about\\_tch.asp](https://www.thinkculturalhealth.hhs.gov/Content/about_tch.asp)
- <sup>116</sup> WI DHS Minority Health <https://www.dhs.wisconsin.gov/minority-health/resources/cultural-language.htm>
- <sup>117</sup> National Institutes of Health; Clear Communication: <http://www.nih.gov/institutes-nih/nih-office-director/office-communications-public-liaison/clear-communication/cultural-respect>
- <sup>118</sup> Health Partners <https://www.healthpartners.com/hp/about/>
- <sup>119</sup> Milwaukee Health Care Partnership <http://mkehcp.org/>
- <sup>120</sup> MCEMS MIH: <http://county.milwaukee.gov/EMS/MIH.htm>
- <sup>121</sup> AveraHealth <https://www.ruralhealthinfo.org/community-health/project-examples/749>
- <sup>122</sup> FamiliesUSA, *Five Ways Measuring the Quality of Health Care is Good for Consumers*, December 2015. <http://familiesusa.org/blog/2015/12/five-ways-measuring-quality-health-care-good-consumers>
- <sup>123</sup> Strive: Selecting Community Level Outcomes & Indicators: <http://www.strivetogether.org/sites/default/files/images/Selecting%20Community%20Level%20Outcomes%20and%20Indicators2012.pdf>
- <sup>124</sup> Prevalence refers to the proportion of cases in the population at a given time.
- <sup>125</sup> Incidence refers to the occurrences of new cases.
- <sup>126</sup> Total Cost of Care, or TCOC, is a name for a method of measuring health care affordability
- <sup>127</sup> Total Resource Use quantifies resource-use for all procedures and services in a health care system, and are designed to facilitate easy comparisons within and across procedures, peer groups, and care settings (i.e. inpatient, outpatient, professional, and pharmacy).
- <sup>128</sup> Allowed amounts are the maximum amount on which payment is based for covered health care services. This may be called "eligible expense," "payment allowance" or "negotiated rate."
- <sup>129</sup> WHIO would process this allowed amounts by episode (ETG) or procedure (PEG) as appropriate and report the overall pmpm for the episode, procedure or population on a risk adjusted basis by medical system and by geography. No PHI, health plan, employer or benefit design would be revealed in the data.
- <sup>130</sup> The Patient Activation Measure (PAM) is a commercial product which assesses an individual's knowledge, skill, and confidence for managing one's health and healthcare.
- <sup>131</sup> Agency for Healthcare Research and Quality, *A Framework for Measuring Integration of Behavioral Health and Primary Care*, <http://integrationacademy.ahrq.gov/atlas/frameworkIBHC>
- <sup>132</sup> The New England Journal of Medicine, *What is Value in Health Care*, December 2010. <http://www.nejm.org/doi/full/10.1056/NEJMp1011024?viewType=Print>
- <sup>133</sup> State Innovation Models: Round Two of Funding for Design and Test Assistance. U.S. Department of Health and Human Services Centers for Medicare & Medicaid Services Center for Medicare & Medicaid Innovation. May 22, 2014. Available at: <http://innovation.cms.gov/Files/x/StateInnovationRdTwoFOA.pdf>
- <sup>134</sup> Approximately 62% of Wisconsites have employer sponsored insurance. Kaiser Family Foundation, *The Wisconsin Healthcare Landscape*, October 2015. <http://kff.org/health-reform/fact-sheet/the-wisconsin-health-care-landscape/>
- <sup>135</sup> The market share of the largest carrier for large group plans is about 15% in Wisconsin, compare to about 56% nationally.
- <sup>136</sup> About 53% of Wisconsin's workers are in self-funded plans. Medical Expenditure Panel Survey - Insurance Component. data only include firms that offer health insurance.
- <sup>137</sup> The Payment Models team accepted the population definitions that were established by the SHIP transformation teams.
- <sup>138</sup> <http://content.healthaffairs.org/content/34/12/2016.full>
- <sup>139</sup> <https://healthleadsusa.org/>
- <sup>140</sup> <http://hsc.unm.edu/community/pathways/index.html>
- <sup>141</sup> <http://healthaffairs.org/blog/2015/10/05/creating-the-next-generation-the-payment-model-we-need-from-medicare/>
- <sup>142</sup> RVU models compensate based on the work performed rather than the number of patients seen since the level of work required can vary by patient.
- <sup>143</sup> O'Donnell et al., *Overcoming Roadblocks: Current and Emerging Reimbursement Strategies for Integrated Mental Health Services in Primary Care*, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3832738/>

---

<sup>144</sup> Health IT encompasses an array of technologies to store, share, and analyze health information. Components of health IT include electronic health records (EHRs), health information exchange (HIE), and telehealth, among other things. An introduction may be found here: Office of the National Coordinator for Health Information Technology, Basics of Health IT, <http://healthit.gov/patients-families/basics-health-it> More detailed definitions appear below in Section VIII.6.1.

<sup>145</sup> The SHIP Health IT team is composed of the Health IT Workgroup and the Health IT Advisory Panel, which provided input and support. Please see Appendix 3 for membership.

<sup>146</sup> In developing this Health IT Plan, the Workgroup and Advisory Panel worked not only within the SHIP transformation workflow but also within guidance from CMMI and the Office of the National Coordinator for Health IT (ONC). CMMI and ONC's guidance on the Health IT Plan recommends focusing on four domains: infrastructure, governance, policy, and technical assistance.

<sup>147</sup> In addition to the engagement described in Section VIII, coordination occurred through updates at meetings regarding each workgroup's progress. The facilitator for the health IT team also presented on the health IT plan and obtained feedback from the behavioral health, care redesign, and payment models workgroups.

<sup>148</sup> Jo Porter, Denise Love, Ashley Peters, Jane Sachs and Amy Costello. The Basics of All-Payer Claims Databases: A Primer for States. Jan. 2014. <http://www.rwjf.org/en/library/research/2014/01/the-basics-of-all-payer-claims-databases--a-primer-for-states.html>

<sup>149</sup> Department of Health and Human Services, The Office of the National Coordinator for Health Information Technology, *What is an electronic health record (EHR)?*, <http://www.healthit.gov/providers-professionals/faqs/what-electronic-health-record-ehr>. ONC distinguishes an EHR, which is meant to enable sharing of information across care settings, from an electronic medical record (EMR), which is limited to the record in a single practice. <http://www.healthit.gov/buzz-blog/electronic-health-and-medical-records/emr-vs-ehr-difference/>

<sup>150</sup> National Alliance for Health Information Technology, *Report to the Office of the National Coordinator for Health Information Technology, Defining Key Health Information Technology Terms*, April 2008, [http://www.nachc.com/client/Key%20HEALTH%20IT%20Terms%20Definitions%20Final April 2008.pdf](http://www.nachc.com/client/Key%20HEALTH%20IT%20Terms%20Definitions%20Final%20April%202008.pdf).

<sup>151</sup> Department of Health and Human Services, The Office of the National Coordinator for Health Information Technology: <http://www.healthit.gov/HIE>, Department of Health and Human Services, Health Resources and Services Administration, <http://www.hrsa.gov/healthit/toolbox/RuralHealthITtoolbox/Collaboration/whatishie.html>.

<sup>152</sup> Healthcare Information and Management Systems Society (HIMSS), *HIMSS Directory of Healthcare Information Technology Terms, Acronyms, and Organizations, Third Edition*, <http://www.himss.org/library/health-information-exchange>.

<sup>153</sup> Department of Health and Human Services, Office of the National Coordinator for Health Information Technology, *What is HIE?*, <http://www.healthit.gov/providers-professionals/health-information-exchange/what-hie>

<sup>154</sup> Direct is a national encryption standard for securely exchanging clinical health care data via the Internet. It is also known as the Direct Project, Direct Exchange and Direct Secure Messaging. It specifies the secure, scalable and standards-based method for the exchange of Protected Health Information (PHI).

<sup>155</sup> Secure e-mail is e-mail that is encrypted to HIPAA and HITECH standards.

<sup>156</sup> APIs are set of programming instructions and standards for accessing a web-based software application, which allows a software-to-software interface. When a software company releases its API to the public (open API), other software developers can design applications and products that will interact in a compatible manner. This makes it possible for a foundational software program, such as an EHR, to interface with a limitless number of applications that have been developed to specifically communicate with the defined API structure.

<sup>157</sup> A PHR is an electronic application used by patients to maintain and manage their health information in a private, secure, and confidential environment. PHRs: are managed by patients; can include information from a variety of sources, including health care providers and patients themselves; can help patients securely and confidentially store and monitor health information, such as diet plans or data from home monitoring systems, as well as patient contact information, diagnosis lists, medication lists, allergy lists, immunization histories, and much more; are separate from, and do not replace, the legal record of any health care provider; and are distinct from portals that simply allow patients to view provider information or communicate with providers. Properly designed and implemented, PHRs can help patients manage their health information. Department of Health and Human Services, The Office of the National Coordinator for Health Information Technology, *What is a PHR?*, <http://www.healthit.gov/providers-professionals/faqs/what-personal-health-record>.



---

<sup>158</sup> A patient portal is a secure online website that gives patients convenient 24-hour access to personal health information from anywhere with an Internet connection. Using a secure username and password, patients can view health information such as: recent doctor visits, discharge summaries, and medications. Department of Health and Human Services, The Office of the National Coordinator for Health Information Technology, *What is a patient portal?*, <http://www.healthIT.gov/providers-professionals/faqs/what-patient-portal>.

<sup>159</sup> Healthcare Information and Management Systems Society (HIMSS), *HIMSS Directory of Healthcare Information Technology Terms, Acronyms, and Organizations, Third Edition*, <http://www.himss.org/library/health-information-exchange>.

<sup>160</sup> National Alliance for Health Information Technology, *Report to the Office of the National Coordinator for Health Information Technology, Defining Key Health Information Technology Terms*, April 2008, [https://www.nachc.com/client/Key%20HEALTH IT%20Terms%20Definitions%20Final\\_April\\_2008.pdf](https://www.nachc.com/client/Key%20HEALTH%20IT%20Terms%20Definitions%20Final_April_2008.pdf).

<sup>161</sup> Department of Health and Human Services, Health Resources and Services Administration, *What is a regional health information organization (RHIO)?*, <http://www.hrsa.gov/healthIT/toolbox/RuralHealthITtoolbox/Collaboration/whatisrhio.html>.

<sup>162</sup> Department of Health and Human Services, The Office of the National Coordinator for Health Information Technology, *Principles and Strategy for Accelerating Health Information Exchange*, [http://www.healthIT.gov/sites/default/files/acceleratinghieprinciples\\_strategy.pdf](http://www.healthIT.gov/sites/default/files/acceleratinghieprinciples_strategy.pdf).

<sup>163</sup> Department of Health and Human Services, Office of the National Coordinator for Health Information Technology, *Considerations for Provider Directories*.

<sup>164</sup> Wisconsin Statutes 45.49(29w)(b)1.b. Available at: <https://docs.legis.wisconsin.gov/statutes/statutes/49/IV/45>

<sup>165</sup> <http://cchpca.org/what-is-telehealth>

<sup>166</sup> Using 2014 data from the National Electronic Health Records Survey, the CDC found that Wisconsin ranked significantly higher than the national average in office-based physicians with a basic EHR system. A basic EHR system is defined as a system with these functionalities: patient history and demographics, patient problem lists, physician clinical notes, comprehensive list of patients' medications and allergies, computerized orders for prescriptions, and ability to view laboratory and imaging results electronically.

[http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6434a10.htm?s\\_cid=mm6434a10\\_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6434a10.htm?s_cid=mm6434a10_w)

<sup>167</sup> The regulation may be found here: <http://www.ecfr.gov/cgi-bin/text-idx?rgn=div5;node=42%3A1.0.1.1.2>. In addition, the Substance Abuse and Mental Health Services Administration (SAMHSA) maintains a list of frequently asked questions about 42 CFR Part 2: <http://www.samhsa.gov/about-us/who-we-are/laws/confidentiality-regulations-faqs>

<sup>168</sup> Wisconsin State Legislature; 2013 Wisconsin Act 238: <https://docs.legis.wisconsin.gov/2013/related/acts/238>

<sup>169</sup> More information on the Medicare and Medicaid EHR Incentive Programs is available here:

<https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/index.html>

<sup>170</sup> ONC's regulations for CEHRT may be found here: <http://www.healthIT.gov/policy-researchers-implementers/standards-and-certification-regulations> The Certified Health IT Product List (CHPL) lists all of the certified EHRs:

<http://www.healthIT.gov/policy-researchers-implementers/certified-health-it-product-list-chpl>

EHR incentive program guidance from CMS is available here: <https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/index.html?redirect=ehrincentiveprograms>

<sup>171</sup> <http://www.healthIT.gov/providers-professionals/regional-extension-centers-recs>

<sup>172</sup> <http://www.healthIT.gov/policy-researchers-implementers/state-health-information-exchange>

<sup>173</sup> This figure comes from the Wisconsin Medical Society's Member Analysis dated December 28, 2015 and includes their members and non-members. This is a fairly accurate approximation of the total number of physicians licensed and practicing in Wisconsin. The total includes solo, clinic-based, and hospital-based physicians and does not include MD residents, students, or physicians not practicing.

<sup>175</sup> Additional detail about the survey can be found in Appendix 13 (Health IT Current State report). There were 208 and 401 responses received to the Behavioral Health (BH) and Long-Term Care (LTC) surveys, respectively. The majority of respondents to both surveys classified themselves as community-based providers serving fewer than 100 consumers. While both rural and urban areas of the state were represented, only a small number of county human service organizations (a primary provider and payer of behavioral health and LTC services) responded to the survey.

<sup>176</sup> Gabriel MH, Swain M. E-Prescribing Trends in the United States. ONC Data Brief, no.18. Washington, DC: Office of the National Coordinator for Health Information Technology, July 2014. <http://healthit.gov/sites/default/files/oncdatabriefe-prescribingincreases2014.pdf>.

<sup>177</sup> For additional information on national e-prescribing trends, please see Gabriel MH, Swain M. E-Prescribing Trends in the United States. ONC Data Brief, no.18. Washington, DC: Office of the National Coordinator for Health Information Technology, July 2014. <http://healthit.gov/sites/default/files/oncdatabriefe-prescribingincreases2014.pdf>. The Surescripts 2014 National Progress Report on e-prescribing is available here: <http://surescripts.com/news-center/national-progress-report-2014>.

<sup>178</sup> A brief overview of the task force's first meeting is available here: [http://www.who.org/Data/Sites/1/pubArchive/valued\\_voice/WHA-Newsletter-10-30-2015.htm#5](http://www.who.org/Data/Sites/1/pubArchive/valued_voice/WHA-Newsletter-10-30-2015.htm#5)

<sup>179</sup> Data on shortage areas in Wisconsin may be found at <https://www.dhs.wisconsin.gov/primarycare/shortage-designation.htm>.

<sup>180</sup> For more discussion of this issue, see Designing the Consumer-Centered Telehealth and eVisit Experience. White Paper prepared for the Office of the National Coordinator for Health IT. <https://www.healthit.gov/sites/default/files/DesigningConsumerCenteredTelehealththeVisit-ONC-WHITEPAPER-2015V2edits.pdf>

<sup>181</sup> American Hospital Association, Trendwatch: The Promise of Telehealth For Hospitals, Health Systems and Their Communities, Jan 2015. <http://www.aha.org/research/reports/tw/15jan-tw-telehealth.pdf> The same article provides descriptive examples of how some hospital-based telehealth platforms currently are used:

<i>Platform</i>	<i>Description</i>
Telestroke	Remote evaluations, diagnoses and treatment recommendations are transmitted to emergency medicine doctors at other sites using advanced telecommunications technologies.
Tele-ICU	Networks of audiovisual communication and computer systems are linked with critical care physicians and nurses to ICUs in other, often remote hospitals.
Telemental Health	Mental health and substance abuse services are provided from a distance (e.g. using videoconferencing and other advanced communication technologies).
Cybersurgery	Surgeons use surgical techniques with a telecommunication conduit connected to a robotic instrument to operate on a remote patient.
Remote Monitoring	Patients are subject to continuous or frequent periodic clinical monitoring via advanced communication technologies.
Telepharmacy	Pharmaceutical care for patients (or supervision to technicians) is provided at a distance using advanced telecommunications technology.
Consultations	Remote consults are conducted with remote specialists, primary care providers, counselors, social workers and other health care professionals.

<sup>182</sup> Jonah Comstock, "Employer Use of Telemedicine to Rise 68 Percent by 2015," mobihealthnews, Aug 13, 2014. <http://mobihealthnews.com/35737/>

Similarly, a 2015 survey of 140 of the largest companies in the US found that 48% already offered telehealth services to their employees, and 74% of those in states where telehealth services are legal planned to offer telehealth services in the coming year. Brian Dolan, "Survey Finds 'Sharp Increase' in Large Employers Planning to Offer Telehealth Come 2016," mobihealthnews, Aug. 25, 2015. <http://mobihealthnews.com/46298/survey-finds-sharp-increase-in-large-employers-planning-to-offer-telehealth-come-2016/>

For large employers, the ERISA Industry Committee (ERIC) is promoting policies to support access to telehealth. <http://www.eric.org/health/erics-telehealth-initiative/>

<sup>183</sup> [http://www.rwhc.com/Papers/RWHC\\_TeleHealth.pdf](http://www.rwhc.com/Papers/RWHC_TeleHealth.pdf)

<sup>184</sup> <http://www.wisconsinmedicalsociety.org/WMS/publications/wmj/pdf/112/4/152.pdf>

<sup>185</sup> Patel V., Barker W. & Siminerio E. (June, 2015). Disparities in Individuals' Access and Use of Health IT in 2013. ONC Data Brief, no.26. Office of the National Coordinator for Health Information Technology: Washington DC.

<sup>186</sup> Patel V., Barker W. & Siminerio E. (June, 2015). Disparities in Individuals' Access and Use of Health IT in 2013. ONC Data Brief, no.26. Office of the National Coordinator for Health Information Technology: Washington DC.

- <sup>187</sup> [http://ccf.georgetown.edu/ccf-resources/using\\_mobile\\_phones\\_to\\_help\\_families\\_access\\_vital\\_medicaid\\_coverage/](http://ccf.georgetown.edu/ccf-resources/using_mobile_phones_to_help_families_access_vital_medicaid_coverage/)
- <sup>188</sup> <http://www.imshealth.com/portal/site/imshealth/menuitem.762a961826aad98f53c753c71ad8c22a/?vgnextoid=365656f1603bf410VgnVCM1000000e2e2ca2RCRD&vgnnextchannel=a64de5fda6370410VgnVCM10000076192ca2RCRD&vgnnextfmt=ddefault>
- <sup>189</sup> Krebs P, Duncan DT. "Health App Use Among US Mobile Phone Owners: A National Survey," JMIR mHealth uHealth 2015;3(4):e101 URL: <http://mhealth.jmir.org/2015/4/e101/> doi:10.2196/mhealth.4924 PMID:26537656. Among the survey respondents, use of health apps tended to correlate with being younger, having higher income and greater education, being Latino/Hispanic, and having a BMI in the obese range.
- <sup>190</sup> Krebs P, Duncan DT. "Health App Use Among US Mobile Phone Owners: A National Survey," JMIR mHealth uHealth 2015;3(4):e101 URL: <http://mhealth.jmir.org/2015/4/e101/> doi:10.2196/mhealth.4924 PMID:26537656.
- <sup>191</sup> Krebs P, Duncan DT. "Health App Use Among US Mobile Phone Owners: A National Survey," JMIR mHealth uHealth 2015;3(4):e101 URL: <http://mhealth.jmir.org/2015/4/e101/> doi:10.2196/mhealth.4924 PMID:26537656.
- <sup>192</sup> <http://www.myopennotes.org/about-opennotes/>
- <sup>193</sup> <http://annals.org/article.aspx?articleid=1363511>
- <sup>194</sup> An article on the medication compliance study is available here: <http://www.ihealthbeat.org/articles/2015/11/5/opennotes-initiative-helps-boost-medication-adherence-study-finds>. Additional research may be found here: <http://www.myopennotes.org/research/publications/>
- <sup>195</sup> U.S. Department of Health and Human Services. Health Resources and Services Administration. Using Health Text Messages to Improve Consumer Health Knowledge, Behaviors, and Outcomes: An Environmental Scan. Rockville, Maryland: U.S. Department of Health and Human Services, 2014.
- <sup>196</sup> <https://www.healthIT.gov/sites/default/files/hie-interoperability/nationwide-interoperability-roadmap-final-version-1.0.pdf>
- <sup>197</sup> In the course of the ONC-funded HIE Cooperative Agreement Program, a public/private board and stakeholders developed a strategic and operational plan, the WIRED for Health Plan, which WISHIN was designated to implement. <https://www.dhs.wisconsin.gov/ehealth/wired.htm>. Because the SHIP Health IT team members include WISHIN staff and members of WISHIN advisory committees, the team had a strong knowledge base about the strategic and operational planning work. In addition, the Health IT workgroup reviewed excerpts of the WIRED for Health Plan, which were distributed for the workgroup's June meeting.
- <sup>198</sup> The HPD standard was developed by Integrating the Healthcare Enterprise (IHE). Additional technical information is available here: [http://ihe.net/Technical\\_Frameworks/#IT](http://ihe.net/Technical_Frameworks/#IT).
- <sup>199</sup> eHealth Initiative, "2015 ACO Survey Results Webinar" (slide 17). <https://www.ehidc.org/articles/418-2015-aco-survey-results-webinar>
- <sup>200</sup> State legislation tracking and reimbursement policies are available on the American Telemedicine Association website: <http://www.americantelemed.org/docs/default-source/policy/2015-ata-state-legislation-matrix.pdf?sfvrsn=4>. Wisconsin is not alone in facing policy barriers related to telehealth; other states face varying combinations of similar challenges.
- <sup>201</sup> <https://docs.legis.wisconsin.gov/statutes/statutes/49/IV/45/29w/b/1/b>
- <sup>202</sup> Forward Health, Covered and Noncovered Services: Covered Services and Requirements, Topic #510. <https://www.forwardhealth.wi.gov/WIPortal/Online%20Handbooks/Display/tabid/152/Default.aspx?ia=1&p=1&sa=50&s=2&c=61&nt=Telemedicine&adv=Y>
- <sup>203</sup> As part of Objective 6 – Coordination of Care through Patient Engagement in CMS's final rule for Stage 3 meaningful use, there is a measure involving patient-generated data: "Patient generated health data or data from a nonclinical setting is incorporated into the CEHRT for more than 5 percent of all unique patients seen by the EP or discharged from the eligible hospital or CAH inpatient or emergency department (POS 21 or 23) during the EHR reporting period."
- <sup>204</sup> <http://www.imshealth.com/portal/site/imshealth/menuitem.762a961826aad98f53c753c71ad8c22a/?vgnextoid=365656f1603bf410VgnVCM1000000e2e2ca2RCRD&vgnnextchannel=a64de5fda6370410VgnVCM10000076192ca2RCRD&vgnnextfmt=ddefault>
- <sup>205</sup> Department of Health and Human Services, The Office of the National Coordinator for Health Information Technology, *Governance Framework for Trusted Electronic Health Information Exchange*, [https://www.healthIT.gov/sites/default/files/GovernanceFrameworkTrustedEHIE\\_Final.pdf](https://www.healthIT.gov/sites/default/files/GovernanceFrameworkTrustedEHIE_Final.pdf).



<sup>206</sup> Department of Health and Human Services, The Office of the National Coordinator for Health Information Technology, *Governance Framework for Trusted Electronic Health Information Exchange*, [https://www.healthit.gov/sites/default/files/GovernanceFrameworkTrustedEHIE\\_Final.pdf](https://www.healthit.gov/sites/default/files/GovernanceFrameworkTrustedEHIE_Final.pdf).

<sup>207</sup> U.S. Department of Health and Human Services, Centers for Medicare & Medicaid Services, Center for Medicare & Medicaid Innovation Center for Medicare and Medicaid Innovation, *State Innovation Models: Round Two of Funding for Design and Test Assistance*, Cooperative Agreement, Initial Announcement, May 2014, <http://innovation.cms.gov/Files/x/StateInnovationRdTwoFOA.pdf>

<sup>208</sup> Wisconsin State Legislature; Collection and dissemination of health care and related information: <https://docs.legis.wisconsin.gov/statutes/statutes/153/I/05>

<sup>209</sup> Wisconsin State Legislature; Requirements for designation and funding: <https://docs.legis.wisconsin.gov/statutes/statutes/153/II/81>

<sup>210</sup> Wisconsin State Legislature; Collection and dissemination of health care and related information: <https://docs.legis.wisconsin.gov/statutes/statutes/153/I/05>

<sup>211</sup> Information in this chart was extracted from the organizations' respective websites on July 28, 2015:

- The Alliance: <http://www.the-alliance.org/>
- MetaStar: <http://www.metastar.com>
- WCHQ: <http://www.wchq.org>
- WHIO: <http://wisconsinhealthinfo.org>
- WMS: <https://www.wisconsinmedicalsociety.org/>
- WISHIN: <http://www.wishin.org/>

Information in this chart related to WHA was extracted from the WHA website on September 22, 2015:

<http://www.wha.org/board-wha.aspx>.

<sup>212</sup> Wisconsin law stipulates the composition of the Board of Directors for the designated entity (Chapter 153.81(1)(e)(1 – 4)). These include the following people: the state health officer (or designee); the Medical Assistance program director (or designee); Governor's appointee (or designee); and one or more from the following, including both public and private sector, health care providers, health insurers or plans, employers who purchase or self-insure employee health care, health care consumers or consumer advocates, and higher education.

<sup>213</sup> This policy lever would be substantial. Under a Medicaid Section 1115 waiver, Wisconsin is able to cover in the BadgerCare Plus program childless adults between ages 19 and 64, with incomes that do not exceed 100 percent of the federal poverty level. As discussed above in the population health and payment reform sections, an average of 85 percent of the full-benefit Medicaid population are served in one of the 19 BadgerCare Plus HMOs. The program was aligned to a statewide contract in 2014. For more information on the waiver, see

<https://www.dhs.wisconsin.gov/badgercareplus/waivers.htm>

<sup>214</sup> Health IT.gov; Interoperability Standards Advisory (ISA): <https://www.healthit.gov/standards-advisory>

<sup>215</sup> Wisconsin State Legislature; Annual report for department of financial institutions:

<https://docs.legis.wisconsin.gov/statutes/statutes/180/XVI/1622>

<sup>216</sup> Medicaid HITECH TA Portal: <http://www.medicaidhitechta.org/Home.aspx>

<sup>217</sup> Centers for Medicare & Medicaid Services; EHR/HITECH: <https://www.cms.gov/Outreach-and-Education/Look-Up-Topics/EHR-and-HITECH/EHR-HITECH-page.html>

<sup>218</sup> <http://longtermcare.gov/the-basics/>

<sup>219</sup> Department of Health Services; State Innovation Models: <https://www.dhs.wisconsin.gov/sim/index.htm>

<sup>220</sup> Department of Health Services; State Innovation Models: <https://www.dhs.wisconsin.gov/sim/index.htm>

<sup>221</sup> Communities may refer to geographical defined initiatives, or stakeholder specific or other types of communities so long as they are organized and willing to actively participate in the learning network.