

Policy Report
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State Innovation Model (SIM) Evaluation Report on Award Year 2 (AY2) Activities

Overview of SIM Implementation Activities from the end of Award Year 2 through the first two quarters of Award Year 3

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Executive Summary

This report covers the process and implementation activities of the State Innovation Model (SIM) test grant in Iowa during the last quarter of the first implementation year (November-December 2016 and January 2017), the three-month no-cost extension period (February – April 2017) and into the first two quarters of the second implementation year (May – October 2017). The objective of the process and implementation evaluation is to describe the structure of the interventions and actions being utilized in the SIM initiative, along with identifying advances and challenges encountered during implementation.

A variety of methods were used to gather the information provided in this report. The University of Iowa Public Policy Center (PPC) team reviewed documents and collected information from pertinent websites, participated in bi-weekly phone conferences with the state SIM team and the Center for Medicare and Medicaid Innovation (CMMI), participated in monthly phone conferences with the state SIM team and the national evaluators, conducted stakeholder interviews to understand how the SIM initiative was being implemented during this time period, and surveyed Iowans across the state to provide a population profile.

The end of SIM award year 2 and into the beginning of award year 3 was a period of change, planning to implement the changes, and progress toward goals. As in the previous year, a significant amount of time was spent working to facilitate collaborations with the multitudes of stakeholders integral to the successful implementation of the SIM activities.

A summary of some of the successes and challenges in the implementation of the SIM activities in this reporting period are below.

Successes

- All six Community and Clinical Care (C3) sites applied for and received year two SIM funding to continue their activities. In addition, a new C3 site with a healthcare system as the primary grantee was funded. The C3 sites continue to be the innovation laboratories for how to establish successful partnerships, provide care coordination, and improve the health of individuals at the community level. Communication between the SIM staff and the C3 organizations has improved.
- There has been a concerted effort to incorporate the collection, analysis, and reporting of data into almost all SIM activities. These efforts could allow for greater opportunities to track success and failure and provide important feedback to healthcare stakeholders to improve organizational processes. Activities included:
 - reigniting the statewide alert network (SWAN),
 - developing and using the SIM data portal,
 - developing a community scorecard for the C3 communities, and
 - supporting the value index score (VIS) dashboard for the payer and provider community.
- Initially, the SIM plan included many activities that were passively encouraged to be utilized by stakeholders to bring about delivery system change and payment reform. There has been significant progress in incorporating stronger policy levers into SIM initiatives to bring about change. Some of those levers included:
 - Requiring the use of SIM tools such as the statewide strategic plans (SSPs), the SWAN, data reporting, and technical assistance (TA) as part of the funding for the C3 communities.
 - Promoting state certification of the Diabetes Self-Management Education (DSME) programs as a way to encourage their widespread use. State certified DSME programs are reimbursed by Medicaid and some private insurers.
 - Introducing the idea of value-based purchasing (VBP) at the community level by incorporating the use of performance-based incentives and disincentives into the C3 required actions.

- C3 Specific Virtual Workshop: In response to feedback requesting more cross-site networking, the Iowa Healthcare Collaborative (IHC) held a dedicated Virtual Learning community in March 2017 that was primarily developed and led by C3s, and allowed C3s to share resources, common problems, and promising solutions.
- After a short hiatus in SWAN activity at the end of the last reporting year, there was a real potential for momentum and enthusiasm about the SWAN to drop. However, the SWAN initiative was able to make significant progress toward its end objectives with, at the time of this report, all three Medicaid managed care organizations (MCOs) sending eligibility files, 43% of all hospitals in Iowa participating, and all Medicaid Accountable Care Organizations (ACOs) and MCOs receiving daily alerts.
- A workgroup was convened and progress was made toward defining and standardizing the measures for data collection surrounding social determinants of health (SDHs).
- Additional subcontractors were added to the SIM TA team, which solidified partnerships to provide SIM stakeholders access to specific expertise and leverage existing networks of professional association members to enhance the application of SIM activities.
- Regular MCO workgroups: SIM staff and MCO representatives met 13 times during this reporting period to discuss contract parameters, quality measures, and value based reimbursement.
- Cooperation on quality measures: The SIM team adjusted total cost of care (TCOC) and VIS measures to reflect MACRA related payment guidelines and incorporate MCO feedback.
- Dashboard demonstration: IME and 3M collected MCO encounter data and ran demonstrations of the VIS dashboard for each MCO.
- Two of the three Medicaid MCOs completed state-approved VBP contracts, which included a 2% payment withhold to enforce the requirement of 40% covered lives in VBP.

Challenges

- Changes in state leadership positions reduced the ability to implement some leadership aspects of the SIM. During this reporting period, there were significant changes in key leadership at the state level. Governor Terry Branstad resigned and was replaced by Lieutenant Governor Kim Reynolds. Charles Palmer retired as Director of the Iowa Department of Human Services (DHS) and Jerry Foxhoven became the new DHS Director. And Mikki Stier, the Iowa Medicaid Director, was promoted to Assistant DHS Director and a search began for a new Medicaid Director. The Award Year 3 Operational Plan for the Iowa SIM included plans to form a Healthcare Innovation and Visioning Roundtable to be headed by Director Palmer. Convening of the Healthcare Innovation and Visioning Roundtable was delayed due to these transitions in leadership.
- Uncertainty in MCO contracts affected the MCOs ability to focus on SIM activities in award year 2 (AY2) and plan ahead for the metrics that they will be expected to reach in the coming years. State contracts with the Medicaid MCOs were to be finalized in July 2017 but negotiations continued to the very end of this reporting period. There were some challenges advancing the SIM strategies for VBP while the state contracts with the Medicaid MCOs were under negotiation.
- Obtaining buy-in from all payers and providers (beyond and including the ones affiliated with Medicaid) for the use of health risk assessments (HRAs) with standardized SDH questions was a challenge. Even though there is some evidence from interviews with C3 healthcare providers that they understand that SDHs impact their patients, encouraging them to use tools to gather SDH information in practice is a challenge.
- There were challenges getting all hospitals (especially rural hospitals) connected to the SWAN and getting the larger healthcare systems to buy-in to its potential to improve care processes.
- Keeping statewide interest in the SIM project is a challenge. Statewide Learning Event attendance significantly declined from the November 2016 (310 attendees) to July 2017 events (110 attendees).

Future considerations

- With about two years left of the SIM, efforts will need to shift toward developing strategies to sustain the most successful SIM initiatives into the post-SIM period. These efforts may include identifying new partnerships, leveraging existing programming, and finding new funding sources to sustain successful initiatives.
- A challenge for the coming year will be to re-establish state level leadership, visioning, and strategic planning for the SIM. Particularly for the sustainability of SIM efforts, it will be very important to engage the new Governor and the new Director of DHS in the healthcare system transformation efforts of the SIM. Without leadership at the highest levels buying into the vision and direction of transformation efforts and helping to plan for the future beyond SIM, it may be difficult to sustain any momentum toward system change gained from the SIM activities.
- The SIM team has primarily worked with the Medicaid MCOs during award year (AY3) regarding VBP. Effort will need to be made to re-engage the Medicaid ACO providers in VBP discussions and activities.
- Provider awareness of and active participation in delivery system and payment reform initiatives will be increasingly important in the coming years of the SIM to be able to institute reform statewide and keep efforts progressing post-SIM.
- It was announced at the time this report was being completed that one of the three MCOs, Amerihealth Caritas, will be leaving the program at the end of November 2017. This change could cause further challenges in the next years as all SIM-related responsibilities will fall on the two remaining MCOs. Also a new MCO is supposed to be added to Medicaid near the beginning of FY 2019. This could provide a challenge incorporating a new MCO into the SIM activities almost three years into the SIM implementation.

Introduction

The State Innovation Model (SIM) is a federal grant program administered by the Centers for Medicare and Medicaid Services (CMS) Center for Medicare and Medicaid Innovation (CMMI). The purpose of this grant program is to provide funding for states to develop innovative ways to address the “triple aim” of healthcare reform; namely, to improve the patient experience of care and population health while simultaneously reducing health system costs. To do this, states are encouraged to use SIM funding to transform their public and private healthcare payment and delivery systems.

Since its inception, CMMI has awarded three types of SIM grants -- Model Design, Model Pre-Test, and Model Test awards.¹ Design grants were awarded to states/entities to design plans and strategies for how to transform healthcare in their states. Test states received awards to implement their plans for comprehensive statewide healthcare transformation. In 2013, Iowa received a Model Design award and in 2015 received a \$43 million Model Test award to implement and test its plan over the course of four years.

Report Focus

This report covers the process and implementation activities of the SIM initiative test grant in Iowa during the last quarter of the first implementation year (November-December 2016 and January 2017), the three-month no-cost extension period (February – April 2017) and into the first two quarters of the second implementation year (May – October 2017). The objective of the process and implementation evaluation is to describe the structure of the interventions/actions being utilized in the SIM initiative and the characteristics of the communities and settings which are impacted by the SIM. The key questions addressed in this report include:

- *How are the SIM interventions being implemented around the state of Iowa? To what extent are each of the SIM interventions being implemented consistently and what is the level of diffusion?*
- *What non-SIM factors or statewide programs are in place that could also impact the SIM-specific goals?*
- *How effective has the implementation of SIM been? Level of use by impacted groups?*

Additional process evaluation questions and the core outcomes analyses will be discussed in other reports.

Methods

The PPC state-level evaluation of Iowa’s SIM includes both qualitative and quantitative methods incorporating multiple data sources and collection methods to capture information from many areas of the healthcare system (local, regional, and state-level; patient, provider, and stakeholder). The overall evaluation includes two-parts: 1) assessment of the process and implementation of the key SIM interventions and activities and, 2) assessment of the core SIM goals (primary outcomes used to measure the success of the SIM). As noted previously, this report focuses on part 1, the description of and progress update on the implementation activities in this reporting period.

Process and Implementation

A variety of methods were used by the PPC evaluation team to gather the information provided in this report:

- Review of documents and information collected from pertinent websites.
- Review of documents requested from SIM partners, including work group meeting minutes, work plans, and survey and evaluation instruments.
- Participation in bi-weekly phone conferences with the state SIM team and CMMI and monthly phone conferences with the state SIM team and the national evaluators.

¹ Centers for Medicare and Medicaid Services. State Innovation Models Initiative: General Information. Accessed November 1, 2016 at <https://innovation.cms.gov/initiatives/state-innovations/>

- Conducted stakeholder interviews to understand how the SIM initiative was being implemented during this time period; the PPC subcontracted with Rural Health Solutions, a consulting company with national rural health development, research, and evaluation expertise, to conduct the portion of the evaluation concerning the C3 initiative.
- Conducted a statewide telephone survey of adults in Iowa (with an oversample of adults in the C3 counties) to get a sense of the make-up of the population and, in particular, how the make-up of people in the C3 counties compared to the rest of the state. More detailed methodology on this survey can be found later in this report.

Environmental Scan of SIM-related Initiatives

The PPC evaluation team uses a regular, systematic scan of data sources to obtain a comprehensive understanding of efforts in the state independent of the SIM initiative. In addition to the internet searches, other data sources were monitored for information and updates including periodic discussions with the state SIM team and review of SIM related websites, grant and funding sources, and periodic publications. These sources were reviewed at least quarterly.

The following specific sources were used to gather information for the environmental scan of SIM-related initiatives in the state of Iowa.

Websites

- Iowa Department of Public Health
- Iowa Department of Human Services
- Iowa Healthcare Collaborative
- Iowa Medicaid Enterprise
- Centers for Medicare & Medicaid Services State Innovation Models Initiative
- SIMplify (the Iowa SIM initiative website for the community partners)
- Amerigroup Iowa
- Amerihealth Caritas Iowa
- United Healthcare of Iowa
- Iowa Health Information Network (IHIN)
- Centers for Disease Control and Prevention (CDC)
- CMS & CMMI

Periodic Publications

- SIMplify newsletter
- C3 proposals, action plans, and quarterly reports
- County Community Health Needs Assessment/Health Improvement Plan (CHNA/HIP) reports
- Iowa SIM quarterly reports to CMMI
- Quarterly MCO reports

Iowa's State Innovation Model (SIM)

During the CMMI site visit in July 2016, Iowa was encouraged to use the SIM to develop an Other-Payer Advanced Alternative Payment Model (aAPM) to prepare Iowa providers to receive the 5% Medicare bonus available as part of the Medicare Access and CHIP Reauthorization Act (MACRA) of 2015. As a result, the state requested and received a 3 month No Cost Extension (NCE) for AY2, to allow time to gather additional stakeholders and develop an AY3 Operational Plan that aligned SIM project objectives and initiatives with the MACRA final rule which was published in November 2016. Thus, the Iowa SIM team spent a significant amount of time reviewing and revising the SIM Goals and Objectives for the remaining years of the grant. The following section provides a brief overview of the AY3 Operational Plan.

Vision and Goals

The overall vision of the Iowa SIM Test Award during its first two years was to transform healthcare to improve the health of Iowans. In AY3, the SIM vision was revised to be "Iowans experience better health and have access to accountable and affordable healthcare in every community." A new driver diagram and subsequent plans were created to outline AY3 activities and forecast the coming grant years. The figure on the following page is the AY3 driver diagram.

The SIM will focus efforts around two primary drivers: 1) delivery system reform and 2) payment reform. Delivery system reform will center on providers in the community and healthcare systems to equip them with tools to engage in population health and educate them to focus on value outcomes as a way to support their initiation into payment reform. Payment reform will center on aligning payers in value-based purchasing (VBP). The combination of these two reform efforts is intended to achieve statewide healthcare transformation where providers are paid based on quality and value and communities and health systems work together to produce a healthy population.

The SIM implementation vision also includes three themes that interact with both primary drivers. SIM AY3 provides a Roadmap to Improve Population Health that focuses on health and healthcare strategies for individuals with diabetes with the intention of expanding best practices learned from this focus to other populations. In addition, there will be an intensification of efforts to address patients' social determinants of health (SDHs) needs, enhance the state's health information technology (HIT) infrastructure and define, refine, and implement quality metrics throughout the health system.

The primary implementation strategies used by the SIM to address the aims of the grant cross both primary drivers but focus on a variety of activities. These include:

- Establishment of a framework for population health improvement (PHI),
- Funding community and clinical care coalitions (C3s),
- Deployment of a statewide alert network (SWAN),
- Data collection, sharing, and reporting,
- Providing technical assistance (TA) at both the community and healthcare system levels, and
- Instituting value-based purchasing (VBP) as a method of payment reform.

The PPC evaluation focuses on these SIM activities and related goals.

Iowa SIM Vision:

Iowans Experience Better Health and Have Access to Accountable, Affordable Healthcare in Every Community

Healthcare Innovation & Visioning Roundtable

GOALS by the end of 2019

Healthcare costs are reduced while quality is improved by:

- ☐ Increase Medicaid and Wellmark provider participation in ACOs to 50%
- ☐ Increase the number of lives covered under either a Medicaid or Wellmark VBP to 50%
- ☐ Receiving approval of at least one Other Payer Advanced APM program from CMS
- ☐ Reduce Total Cost of Care by 15% below expected Wellmark and Medicaid

Patients are empowered and supported to be healthier by:
Reduce the rate of potentially preventable readmissions in Iowa by 20%

Reduce the rate of potentially preventable ED visits in Iowa by 20%

Reduce the rate of the Hospital Acquired Conditions (HAC) to meet the national goal (97/1000) by focusing on a 20% reduction to Clostridium Difficile and All Cause Harm measures

Increase the number of provider organizations that are financially successful in Alternative Payment Models under Medicaid & Wellmark

PRIMARY DRIVERS

Payment Reform: Align Payers In VBP

Delivery System Reform: Equip Providers

Secondary Drivers

Align clinical and claims-based quality measures linked to payment

Increase contracts with ACOs that include up and down side risk

Educate stakeholders on ACO Models in Iowa

Mature infrastructure and use of HIT analytics to support VBP

Elevate the use of Social Determinant of Health data within VBP programs

Develop common language and a shared vision of delivery system reform across payers

Implement Accountable Communities of Health pilot to prepare communities for value based delivery models

Address patient social needs through linkages to community based resources

Utilize the Iowa Health Information Network and the Statewide Alert Notification System to optimize transitions of care

Develop a community scorecard for process improvement that emphasizes and raises the standards of care

Improve use of HRAs that collect SDH and measure health confidence

Provide technical assistance to providers engaged in transformation and value based models

Quality Measurement

Health IT Enhancement

ROADMAP TO IMPROVE POPULATION HEALTH

Governance

With oversight from the Governor's office, the governance of the Iowa SIM is primarily led by representatives from the Iowa Department of Human Services (DHS) and the Iowa Department of Public Health (IDPH). Two representatives from the governor's cabinet, specifically the Director of DHS and the Director of IDPH, are responsible for working with the state executive and legislative branches. Senate file 505 requires DHS to report on SIM activities annually to a legislative committee; however, both DHS and IDPH interact with legislators more frequently as needed.

The Director of DHS is the recipient of the SIM grant and as such, DHS is accountable for the operation and execution of the SIM activities. IDPH partners with DHS to implement particular functions of the SIM grant. The Iowa Healthcare Collaborative (IHC) provides technical assistance and quality improvement support services to healthcare providers and other stakeholders. These three entities have the primary responsibilities for carrying out the majority of the SIM activities.

During this evaluation period, leadership within the SIM and State of Iowa transitioned. Governor Terry Branstad resigned in May 2017 and was replaced by Lieutenant Governor Kim Reynolds. Another key stakeholder in the SIM, Charles Palmer, retired as Director of the Iowa Department of Human Services in June 2017. Jerry Foxhoven became the new director of DHS in June 2017.

The Award Year 3 Operational Plan for the Iowa SIM included plans to form a Healthcare Innovation and Visioning Roundtable, which would be responsible for gathering stakeholders, planning the remaining years of the SIM, and sustaining the SIM initiatives beyond the granting period. Convening of the Healthcare Innovation and Visioning Roundtable has been delayed due to these transitions in leadership.

Stakeholders

There are many stakeholders who are integral to the successful implementation of the SIM in Iowa. Partners in the SIM vision and implementation include payers, providers, communities, state governmental entities, and others. Table 1. SIM Stakeholders provides a list of SIM stakeholders organized by sector.

Table 1. SIM Stakeholders

State Government	Payers	Providers	Communities	Contracted Entities
<ul style="list-style-type: none">• Iowa Department of Human Services (DHS)• Iowa Department of Public Health (IDPH)• Iowa Medicaid Enterprise (IME)• Governor's Office• Iowa Department on Aging	<ul style="list-style-type: none">• MCO: Ameri-Health• MCO: United Healthcare• MCO: Ameri-group• Wellmark	<ul style="list-style-type: none">• Accountable Care Organizations (ACOs)• Independent primary care providers• Hospitals• Behavioral healthcare providers	<ul style="list-style-type: none">• Social services agencies• Local government• Local and county public health• C3 community care teams• Healthcare consumers	<ul style="list-style-type: none">• Iowa Healthcare Collaborative (IHC)• 3M Analytics• Public Policy Center (PPC)• IHIN (Hielix)

A primary responsibility of the SIM leadership is facilitating partnerships among these key stakeholders, particularly with private and public payers, regarding the incorporation of VBP agreements with their providers. Along with advising their constituencies to support SIM initiative needs, members of the SIM leadership adjust strategic direction when needed. The SIM employs a variety of stakeholder engagement strategies to introduce the SIM vision to stakeholders, collect feedback, and incorporate that feedback into future planning and operative processes. Additional detail about the progress of stakeholder engagement during this reporting period can be found in [Appendix A](#).

The Health and Wellbeing of Iowans - SIM Baseline

One of the main stakeholders in changing the healthcare landscape in Iowa is also one of the main potential beneficiaries of the efforts, namely, the people who live, work, and access healthcare in Iowa. To provide a descriptive overview of the population in Iowa during the early years of the SIM with regard to health status, use of healthcare, diabetes and impact of diabetes, obesity, tobacco use, nutrition and access to healthy food, physical activity and access to ways to be active, and issues with one major SDH, transportation to healthcare visits, the PPC evaluation team conducted a statewide, telephone survey of adults who reside in Iowa. Interviews were conducted between September 29, 2016 and April 23, 2017. In all, 35,000 landline and cellular telephone numbers were included in the statewide sample and an oversample of individuals in C3 counties was added to provide adequate numbers from these regions. For a more detailed description of the methods, including the interview questions, from the statewide survey, please refer to [Appendix B](#).

The overall response rate was 27% for a total of 2,132 completed interviews (421 in C3 counties). Over three-quarters (79%) of respondents were between the ages of 18 and 64 with equal numbers of males and females. The vast majority (90%) of respondents were white; 6% were Hispanic, and 3% were African American. Most were either employed full or part-time (67%) or were retired (18%) with 91% reporting either having a high school degree or higher (28% were college graduates). The vast majority (93%) had some type of health insurance coverage. With the exception of size of community, respondents in C3 counties were similar to the respondents from the rest of the state. Somewhat fewer respondents from C3 counties were from rural communities (15% C3, 20% rest of state).

[\[Appendix B Table 1\]](#)

Highlights from the survey results are presented below. Unless indicated, individuals from C3 counties were similar to individuals in the rest of the state. Figures noted in this section are located in [Appendix B](#).

Health Status

- *Self-Reported Physical and Mental Health* - Over one-half of respondents (53%) reported their physical health to be *very good to excellent*; 14% reported *fair to poor* physical health. Over two-thirds (69%) reported their mental health as *very good or excellent* with 9% reporting *fair or poor* mental health. [\[Appendix B Figure 2\]](#)
- *Chronic Conditions* - Approximately one-third (34%) had ever been diagnosed with a chronic physical health condition. Around 15% had ever been diagnosed with a chronic mental health condition. [\[Appendix B Figure 3\]](#)
- *Functional Limitations* - Around one-quarter (22%) reported being limited in any way in any activities because of an impairment or health problem. Few respondents reported needing help with their personal care (3%) or routine needs (8%) because of an impairment or health problem. [\[Appendix B Figure 4\]](#)
- *Weight Issues* - Over one-half (54%) of respondents reported weighing too much when compared to other people of their age and height with 19% having been told by a health professional that they were obese. [\[Appendix B Figure 5\]](#)
- *Smoking* - A little more than 1 in 5 (23%) reported smoking cigarettes or using tobacco at least some days. Somewhat fewer (18%) individuals in C3 counties reported the same. [\[Appendix B Figure 5\]](#)
- *Diabetes* - Approximately 10% reported that a doctor, nurse, or other health care professional had told them that they had diabetes. [\[Appendix B Figure 5\]](#)

Diabetes

For those who reported having diabetes, several questions were asked to get an idea of the impact diabetes had on an individual's quality of life, the impact of diabetes on the healthcare system, and the experiences individuals with diabetes have with self-management and support for their condition. Due to sample size limitations, only state-level estimates are presented here.

- *Quality of Life* - 20% of individuals with diabetes reported emotional distress as a result of

their diabetes, 16% reported distress due to having to keep up with the routines that help manage their diabetes, 15% reported that diabetes had put a burden on their interpersonal relationships, and 10% reported distress due to interactions with their physician about their diabetes. [\[Appendix B Figure 6\]](#)

- *Healthcare System Impact* – Very few individuals with diabetes reported visiting a hospital emergency room (3%) or being admitted to the hospital overnight or longer (2%) in the previous 12 months because of their diabetes. [\[Appendix B Figure 7\]](#)
- *Self-Management and Support* – Over two-thirds (77%) of individuals with diabetes reported having visited their healthcare provider at least twice in the previous 12 months. The majority (92%) reported having worked with their doctor or other healthcare professionals to develop a plan to manage their diabetes. Around 63% had ever taken a course or class in how to manage their diabetes and 58% reported being *very confident* that they could control and manage their diabetes. Improving self-management confidence and encouraging diabetes education could be two target areas for SIM activities related to diabetes. [\[Appendix B Figure 8\]](#)

Nutrition and Food Security

Good nutrition and diet are keys to health, especially for those with diabetes and/or weight issues. The interview included questions to address the status of respondents with respect to eating a healthy diet and identifying potential barriers to eating a healthy diet (i.e., lack of affordable and/or accessible food choices).

- *Healthy Diet* – Most individuals reported being actively engaged in eating a healthy diet with 51% in the action stage and 45% in the maintenance stage. [\[Appendix B Figure 10\]](#)
- *Affordability of Food Choices* – More than 1 in 5 individuals (21%) reported not being able to afford to eat balanced meals with 19% reporting that the food they bought just didn't last and didn't have money to get more. Food insecurity is a reality for many in Iowa. [\[Appendix B Figure 12\]](#)
- *Availability of Food Choices* – The majority of individuals (95%) reported good availability of healthy food options in their communities. [\[Appendix B Figure 12\]](#)

Physical Activity

Along with eating a healthy diet, physical activity is also important for health and wellness and increased physical activity is often recommended for people with diabetes and/or weight issues. The interview included questions to address the status of respondents with respect to physical activity, the stage of behavior change regarding physical activity, and identify potential barriers to physical activity particularly relating to walking and biking.

- *Physical Activity Levels* – Around three-quarters (74%) of individuals reported engaging in any physical activity in the previous month with slightly more individuals (81%) in C3 counties reporting the same. Most (72%) reported engaging in moderate activity at least 4 days in the previous week with only one-third (33%) having reported engaging in vigorous activity for at least 4 days in the same time period. [\[Appendix B Figure 13\]](#)
- *Stage of Behavior Change* - Over three-quarters (79%) reported actively engaging in physical activity on a regular basis. Around 20% were either contemplating or preparing to make a change towards increasing their physical activity. [\[Appendix B Figure 14\]](#)
- *Walking for Physical Activity* – 83% reported their community had adequate sidewalks and protected crosswalks or trails that could be used to walk to the grocery store, bank, or other public locations. Yet, only around one-half (53%) reported having walked to stores, businesses, or other public locations in the previous 12 months. However, 81% reported having walked for exercise or recreational purposes in the previous year. [\[Appendix B Figure 15\]](#)
- *Biking for Physical Activity* - 71% reported that their community had on-street bikeways or trails that could be used to bike to the grocery store, bank, or other public locations. Only around 3% reported not having a bike or ability to ride a bike. Yet, only 1 in 5 (21%) reported having biked to stores, businesses, or other public locations in the previous 12 months. Around one-third (34%) reported biking for exercise or recreational purposes with slightly more individuals in C3 counties (40%) having reported biking for exercise or recreation within the previous year. [\[Appendix B Figure 16\]](#)

Smoking

For those who reported smoking cigarettes or using tobacco, the interview asked about readiness to quit and provider advice about cessation.

- *Readiness to Quit* – Over three-quarters (79%) of smokers reported that they had no intentions to quit smoking. [[Appendix B Figure 17](#)]
- *Provider Cessation Advice* – Around one-half (54%) of smokers statewide and 65% of smokers in C3 counties reported being advised by their healthcare provider to quit smoking. Twenty-five percent reported their provider recommended medications to help them quit while 21% reported their provider recommended methods other than medication (i.e., Quit lines, counseling, etc.) to quit. Slightly more (28%) smokers in C3 counties reported their doctors recommending quitting using methods other than medication when compared to the rest of the state. [[Appendix B Figure 18](#)]

Emergency Department (ED) Visits and Hospitalizations

- *ED Use* – Around 25% of individuals reported having used the ED for care at least once within the previous year. This figure was slightly lower for individuals in C3 counties (21%). For those who used the ED, around half (53% in C3 counties; 45% statewide) reported that the care they received at their most recent visit could have been provided by a doctor's office or clinic. [[Appendix B Figure 23](#)]
- *Hospitalizations* – A little over 10% of individuals reported having spent at least one night in the hospital within the previous year. Of those, 19% reported having to go back into the hospital within 30 days after being discharged because of still being sick or having problems. [[Appendix B Figure 23](#)]

Transportation to Healthcare Visits

In 2016, access to transportation ranked 7th as a priority area in the CHNAs, with 49 counties identifying access to transportation as a community health need. Perhaps because of this fact, in the SIM Operational Plan, one of the social determinant of health interest areas is transportation. The interview included questions about difficulties with transportation to health care visits.

- *Transportation Needs* - A little over 1 in 5 individuals (22%) reported needing assistance from other sources (i.e., friends, family, public transportation, etc.) to get to a healthcare visit at least sometime in the previous 12 months. Yet, only around 3% reported a time when they needed transportation to or from a healthcare visit but could not get it for any reason during the same time period. [[Appendix B Figure 25](#)]
- *Cost Worries* - Around 10% reported having worried about their ability to pay for the cost of transportation to or from a healthcare visit. [[Appendix B Figure 25](#)]

Next Steps

The PPC evaluation team will conduct another statewide telephone survey of the Iowa population in the fall of 2018 that includes these topic areas. Future evaluation reporting will include an analysis of any changes seen in the Iowa population over the course of the SIM.

Evaluation of Implementation Activities

The implementation activities at the end of AY2 and into AY3 and were a continuation of previous activities that were redesigned to promote the two (new) primary drivers of the Iowa SIM; namely delivery system reform (equipping providers with tools and technical assistance for how to use the tools and information) and payment reform (establishment of quality measurement and promotion of value-based purchasing contracts). While most implementation activities cut across both primary drivers, the following outline shows how the activities will be organized and presented in this section.

Primary Driver I. Delivery System Reform – Equip Providers

Provider Tools

- Framework for Population Health Improvement (PHI)
- Community and Clinical Care Initiatives (C3s)
- Statewide Alert Network (SWAN) and Iowa Health Information Network (IHIN)
- Data Collection, Sharing, and Reporting
 - Community Scorecards
 - Health Risk Assessments (HRAs)
 - Value Index Score (VIS) Dashboard

Technical Assistance (TA)

- Statewide Learning Events
- Targeted TA to C3 Communities
- Targeted TA to Healthcare Systems

Primary Driver II. Payment Reform – Align Payers in Value-Based Purchasing (VBP)

- Payers (Medicaid MCOs, Wellmark)
- Providers (Medicaid ACO focus)
- Quality Measurement

The rest of this section provides a description of each activity, the intended implementation steps or approach, and the status of implementation during this reporting period.

Delivery System Reform – Provider Tools

Delivery system reform implementation activities involve the various tools created from SIM grant funding that are intended to aid healthcare providers and other stakeholders in the transition to a value-based healthcare system. This section includes a discussion of several of those tools: a framework for population health improvement, the community and clinical care initiatives, the statewide alert network, and tools for data collection, sharing, and reporting.

Framework for Population Health Improvement (PHI)

In the 2017 SIM operation plan, efforts to improve population health were consolidated into a focus on diabetes called the Roadmap to Improve Population Health. In 2016, the local boards of health from 42 of Iowa's 99 counties noted diabetes in their CHNAs [Figure 1]. While many of the same activities from the original SIM operational plan continue to be implemented across populations, the target for application has shifted to diabetes care as a way to monitor the success or failure of particular initiatives. The implication is that the actions and tools that significantly impact and improve diabetes care will translate to other chronic and public health issues and be sustainable going forward. In general, the population health improvement activities can be grouped into the following broad headings:

- 1) System-Level Care Coordination and Management
- 2) Evidence-based Care and Patient Self-Management Support
- 3) Linkages to Community-Based Resources to Address Patients' Social Needs

System-Level Care Coordination and Management

Activities most associated with promoting system-level care coordination and management are two-fold and are implemented through requirements included in requests for SIM funding (RFPs). The first involves introducing the C3 communities to the concept of value-based payment structures through the use of a pilot program focusing on the use of clinical quality and process measures related to diabetes as a way to track outcomes that would be associated with either bonus payments or payment withholds. This policy lever exposes the wider healthcare community represented by the C3 communities to the concept of upside and downside risk related to performance. More detail on this will be provided in the [Community and Clinical Care \(C3\) Initiatives](#) section for more detail.

The second activity in this area involves developing a health information technology (HIT) infrastructure that would support care coordination. This infrastructure includes SIM and non-SIM related activities that were started in previous years such as the Statewide Alert Network (SWAN) and the Iowa Health Information Network (IHIN), respectively. The IHIN and [Statewide Alert Notification System \(SWAN\)](#) will be discussed in more detail later in the report. At the local level, the HIT infrastructure includes the use of care coordination software. The C3 communities are required to use care coordination software within their own HIT systems to communicate health and social needs of patients between provider and community resources and track referrals. Developing the HIT infrastructure also includes the use of data through electronic systems to encourage performance improvement. The SIM activity for this type of HIT infrastructure development is at the local level where C3 communities are required to submit data to the [IHC-SIM Data portal](#) (designed and managed by the IHC) where it is combined with other data sources, analyzed, and reported back to the C3 sites in a Community Scorecard. More detail can be found in the [IHC-SIM Data portal](#) and [Community Score](#) sections of the report.

Some of the SIM actions that have occurred to promote these activities in this reporting period include providing infrastructure support, technical assistance, and instituting a powerful policy lever by tying activities to funding through the C3 RFP.

Evidence-Based Care and Patient Self-Management Support

One of the SIM activities noted by the 2017 OP as an “essential delivery system reform” involves promoting “population based, community applied” interventions designed to encourage providers to use evidence-based care and support patients in self-managing their health conditions. The SIM project does this through the *development, promotion, and implementation* of the Statewide Strategic Plans (SSPs) and leveraging existing community evidence-based programming supporting diabetes self-management² such as the Diabetes Self-Management Education and Training (DSME) program³, the Stanford Chronic Disease Self-Management Program (CDSMP)⁴, and the National Diabetes Prevention Program (NDPP)⁵.

Development

Over the course of the first implementation year, multi-stakeholder committees met several times to develop many of the SSPs. The SSPs are guidelines to evidence-based practice for a variety of population and hospital-based health issues. For each topic, the SSP includes an overarching mission and vision statement, specific goals and objectives, and targeted tactics to address primary prevention, detection, management/treatment, and the use of data to address the particular condition. The SSPs can be found here <https://idph.iowa.gov/SIM>. The following table summarizes the SSP development to date.

2 Iowa Department of Public Health. Diabetes Prevention and Control. Available at <http://idph.iowa.gov/diabetes>

3 Centers for Disease Control and Prevention. Managing Diabetes: Diabetes-Specific Self-Management Education Programs. Available at <https://www.cdc.gov/learnmorefeelbetter/programs/diabetes.htm>

4 Iowa Department of Public Health. Better Choices, Better Health. Available at <http://www.idph.iowa.gov/betterchoicesbetterhealth>

5 Centers for Disease Control and Prevention. National Diabetes Prevention Program. Available at <https://www.cdc.gov/diabetes/prevention/index.html>

Table 2. Statewide Strategy Plan Development

Statewide Strategy Plan Topic	Approved
Healthcare Associated Infections	July 2015
Medication Effectiveness & Safety	July 2015
Obstetrics Care	July 2015
Diabetes	July 2015
Care Coordination	June 2016
Obesity	June 2016
Tobacco	July 2016
Person and Family Engagement	November 2016
Falls Prevention	August 2017
Social Determinants of Health	Final Draft under review

Promotion & Implementation

With regard to the SSPs, the first year of SIM implementation was focused on creating stakeholder groups, and developing and refining the plans and tactics. During this reporting year, even though SSPs are still being developed and updated, there has been a shift in focus to: 1) requiring the use of SSPs when planning population health activities within local communities, and 2) promoting the SSPs to broader stakeholder groups and providers across the state.

In the first implementation year, the C3 communities were encouraged to use the SSPs, particularly related to obesity, tobacco, diabetes, and care coordination but there were no particular requirements to do so. In this reporting period, as a part of their contractual award, the C3 communities were to focus their population health plans and activities on improving the health of people with diabetes and were required to utilize the diabetes and related SSPs to do so. [[Community and Clinical Care \(C3\) Initiatives](#)]. This change in direction provided a strategic move from passive encouragement of the use of SSPs to a more active requirement of their use within one set of stakeholders.

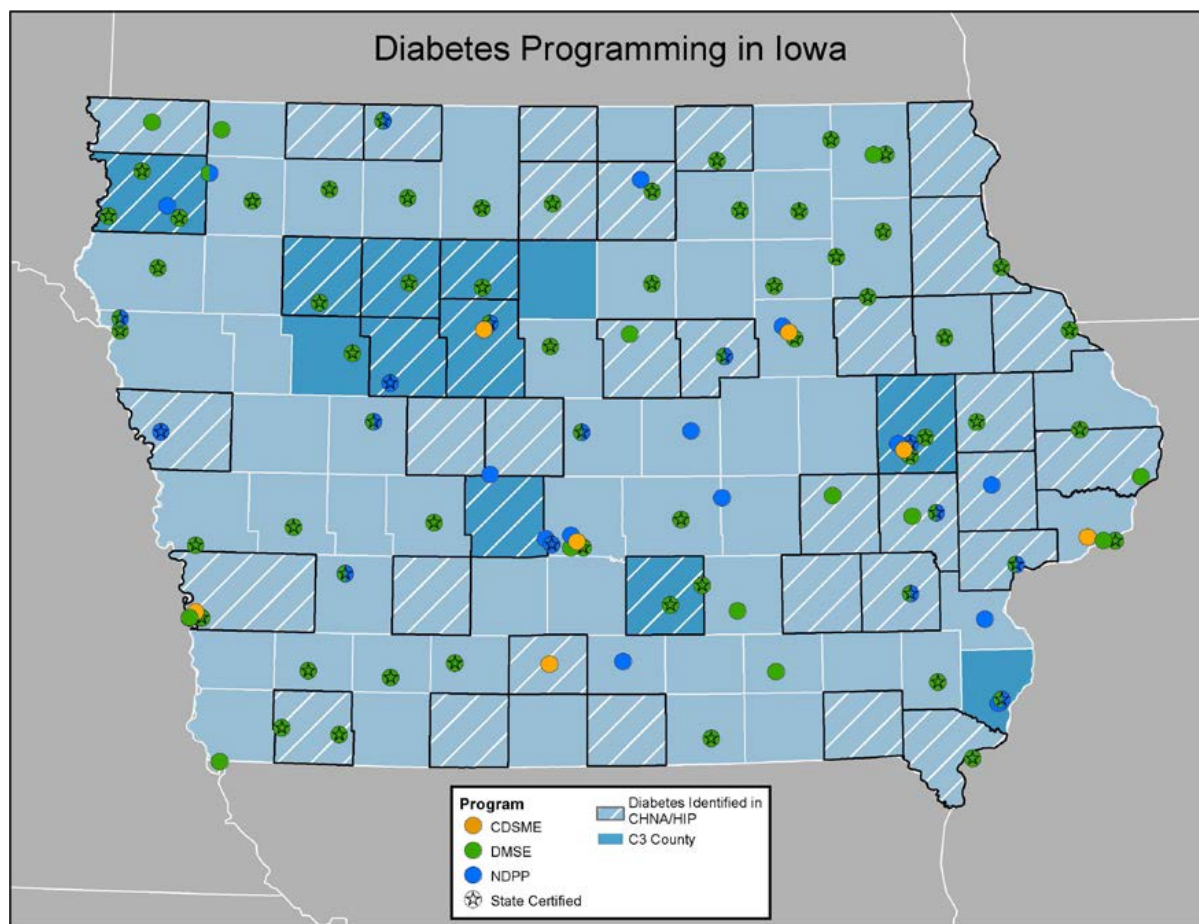
Also in this reporting period, there was an intention to more widely distribute the SSPs beyond the C3 communities. In the spring of 2017, the IDPH SIM team reviewed the 2016 county-level Community Health Needs Assessment and Health Improvement Plans (CHNA & HIPs) to identify additional, non-C3 community counties which identified diabetes as a need. Of the 42 counties with diabetes as a need, 9 were C3 counties; thus, the IDPH SIM team could target 33 additional counties for promotion of the SSPs and other educational activities related to diabetes care. There was a goal to conduct these types of additional promotional activities in at least 15 counties by the end of the second implementation year (AY3) which ends on April 30, 2018.

In this reporting period, the IDPH SIM team met their first goal of reaching at least five counties. SIM team members held phone call meetings with stakeholders from five non C3 counties to encourage the incorporation of SSP tactics into their county HIPs. Feedback about the meetings indicated that there was some success in improving awareness and use of the SSPs. Two of the five counties had not heard of the SSPs and expressed interest in learning more, one county had heard about the SSPs and was considering using SSP tactics in the future, and two counties were beginning to implement activities based on the SSP tactics.

In addition, the outreach calls were used to educate county stakeholders about diabetes resources, such as DSME and NDPP programming, available in their region. With the turn toward a focus on diabetes for population health measurement, the SIM team intends to leverage existing, evidence-based diabetes programming as tools for communities in efforts to reduce the prevalence of diabetes and help patients better manage their diabetes. Three of these program efforts are the DSME, the CDSMP, and the NDPP. [Appendix C](#) provides more information about each of these programs.

In the following map, diabetes-related programming in Iowa is highlighted. The map shows the C3 counties highlighted in darker blue. Diabetes education programs/sites are indicated by the colored circles; those with state certification are indicated with a star inside the circle. Counties with diabetes as a need in their CHNA/HIPs have hash marks through them to give an idea of which non-C3 counties could be targeted for additional diabetes outreach.

Figure 1. Diabetes Programming Map



DSME: Diabetes Self-Management Education (DSME) is a ten-hour program for people diagnosed with diabetes which provides education on medical management and self-care behaviors

NDPP: National Diabetes Prevention Program (NDPP) is a yearlong program (16 sessions + 6 follow-up sessions) that can help prevent or delay type 2 diabetes for people with prediabetes

CDSME: Chronic Disease Self-Management Program/Education (CDSME) is a six-week workshop (15 hours total) for individuals with chronic conditions to improve health outcomes through managing lifestyle behaviors

State Certification: The IDPH certifies diabetes outpatient education programs - certification is necessary obtain reimbursement from Medicaid and some private insurers in the state of Iowa

Diabetes education programs are widespread across the state and it is important to note those with state certification. DSME programs are reimbursed by Medicare and, in Iowa, state-certified DSME programs are reimbursed by Medicaid and some private insurers. Thus, efforts to promote state-certification of DSME programs is another strong policy angle for SIM activities. Efforts to implement this part of the population health initiative of the SIM during this reporting period have involved many policy levers for change including establishment of cooperative agreements and relationships, helping build infrastructure, and offering financial incentives through reimbursement for education programs.

Linkages to Community-Based Resources to Address Patients' Social Needs

An emphasis on social determinants of health (SDHs) continues to be a fundamental component of the SIM population health improvement framework. The SDH focus is embedded within several SIM activities including: 1) the referral and care coordination networks developed by and implemented in the C3 communities, 2) incorporation of measures of SDH into health risk assessments (HRAs), in particular the Assess My Health (AMH) tool, and 3) aggregating and analyzing SDH data to help inform policy and patient care decisions.

At the local level, the C3 communities have been on the forefront of providing enhanced care coordination activities as part of their role on the SIM. In this reporting period, there is an emphasis

on further developing the referral networks and ways to close the referral loop to ensure that patient/client health and social needs are addressed. More information about how C3 communities address social determinants of health through care coordination and referral networks can be found in the [Community and Clinical Care \(C3\) Initiatives](#) section.

The addition of SDH questions to the AMH HRA is a goal of the SIM for AY3 and the coming years. The intent is to be able to eventually link the SDH data from AMH to value-based purchasing (VBP) within the Medicaid MCO contracts. More information about the status of this initiative is in the [Value Based Purchasing](#) section. While the intent is to include a battery of SDH questions on AMH, the initial pilot test for linking the information to VBP will include the data from a question about health confidence. Over time, the SIM intends to promote the reports generated from the data on HRAs as both a tool for providers and as a tool for policymakers to improve population health. At the individual patient level, the HRA data would be a way for healthcare providers to be informed about the social needs of their patients. In aggregate, the SDH data from the HRAs could be used to identify the most common and urgent social needs affecting particular areas so that policymakers could devise strategies to address those needs. More information about the status of using HRA data within the SIM can be found in the [Data Collection, Sharing, and Reporting](#) section.

Community and Clinical Care (C3) Initiatives

SIM-funded Community and Clinical Care (C3) Initiatives were designed to transform healthcare delivery by promoting care coordination across the traditional divide between medical, public health, and social service delivery systems. C3s are community-based coalitions of health and social service stakeholders who collaborate to promote the coordination of their population's care across a variety of care settings and systems. IDPH issued an RFP for funding in February 2017 that was available only to the previous C3 community awardees. Funding applications in response to the SIM C3 RFP were due by the end of March 2017 and the notice of intent to award was issued in mid-April 2017. The AY3 project period for the awardees started on May 1, 2017.

In this reporting period, the PPC evaluation team evaluated the progress and status of the C3 initiatives implemented during their first award year (which ended April 30, 2017) and documented changes to the C3 initiative focus as a result of the 2017 Operational Plan revisions to be implemented in the initiative's second award year (which started May 1, 2017).

Status Update - C3 Award Year 1 (SIM AY2)

To understand progress made by C3 communities toward SIM objectives, the evaluation team surveyed or interviewed C3 stakeholders. In early 2017, prior to the end of the first grant period, the evaluation team surveyed steering committee members from all six C3 sites, healthcare providers from one C3 site, and, for two other sites, conducted telephone interviews with clinic managers from clinics participating in the regional C3 initiative. Also, in April 2017 (at the end of the first C3 grant period), each site completed the second self-assessment of their care coordination efforts using the Care Coordination Statewide Strategy Matrix. The findings from these two efforts follow.

Stakeholder Surveys and Interviews

Steering Committee Member Survey

The steering committee members from all six C3 sites were invited to participate in a web-based survey. In total, 127 steering committee members across all sites received an invitation to take the survey. Overall, the response rate was 55% and ranged from 32% to 80%, depending on the site. The intention of the survey was to get a sense of the type of representation on the steering committees, their awareness and knowledge of the C3 initiative, and participation in and satisfaction with C3 activities.

Respondents to the survey included public health providers (29%), hospital leaders (21%), community members (21%), clinic leaders (16%), healthcare providers (11%), and others (25%). Respondents could choose more than one category to describe themselves. The majority of respondents either *agreed* or *strongly agreed* that they were aware of the C3's role in their community (97%) and the C3 initiatives underway in the community (95%). Also, around 80% of respondents either *agreed* or *strongly agreed* that they participate in local C3 initiative planning and development. These responses indicate C3 steering committee members are aware of and participate in the planning and development of the local C3.

Steering committee members responded that they felt that the C3 initiatives were either already (in the case of implementation C3s) or were going to (in the case of developmental C3s) make an impact on many of the goals for the SIM. Around 89% of steering committee members either *agreed* or *strongly agreed* that a) in the past year, community partners/social services have been working more/better together to meet patient needs and b) that the care coordination needs in their community were or would be addressed through the local C3 initiative. Around 86% felt that community members' needs related to social determinants of health were or would be addressed because of the local C3 initiative and 82% felt the same about community members' needs related to their diabetes.

And, when C3 steering committee members were asked about satisfaction with the C3 and the initiatives underway in their communities, 45% were *very satisfied*, 40% were *satisfied*, 14% were *neither satisfied nor dissatisfied*, and 1% were *dissatisfied*. In summary, the majority of steering committee members who responded to the survey were satisfied with the C3 initiatives underway in their communities and were confident that the C3 would achieve its goals.

Healthcare Provider Survey

To get a sense of how healthcare providers viewed the work of the C3 initiative, the evaluation team conducted a mailed survey to healthcare providers participating in the C3 initiative at one implementation site. An introductory letter was included with the survey that explained the SIM and the C3 coalitions and indicated that the person receiving the letter was identified as a healthcare provider involved with the C3 initiative.

The survey was mailed to 42 nurse practitioners, physicians, physician assistants, psychiatrists, and two registered nurses. The survey response rate was 18%, with six respondents reporting as physicians, one reporting as a nurse practitioner, and one not stating a profession.

The survey asked questions about C3 awareness and knowledge, participation in C3 initiatives, C3 satisfaction overall, and background information about the survey respondent. The findings are as follows:

- Awareness – Regarding awareness about the Iowa SIM, C3's role in the community, C3 activities underway, and support for clinic's collaboration in the C3 initiative and activities, two of the healthcare providers reported they *agree* while all others reported they *strongly disagree* or *disagree* they are aware.
- Knowledge - When asked about knowledge of the local and regional health and social services available to patients, all but two of the survey respondents reported they *agree* or *strongly agree*. All but one health care provider reported they *agree* or *strongly agree* that social needs and social determinants of health impact patients.
- Support for C3 Collaboration - When asked if they support their clinic's collaboration with the C3 initiatives and activities, five respondents reported they were *neutral* or *agree*, two reported they *strongly disagree* and one was unsure.
- Participation in C3 Activities - One survey respondent consistently reported participation, using the C3 to learn about and support patients' social determinants of health, diabetes and care coordination needs. In addition, one health care provider reported they *agree* that care coordination has improved for their patients and they are working more/better with community partners/social services to meet patient needs because of the C3.
- Satisfaction with the local C3 initiative and their role in it - One health care provider reported they are *very satisfied* while all others report they are *neither satisfied nor dissatisfied*.

Although the survey response rate was low and survey respondents reported a lack of awareness of the C3 initiative at this particular C3 site, it is possible that their clinic is participating and their patients are being served as a result of interacting with the C3. This could be due to the C3 activities being imbedded in daily operations without attributing that work to the C3 and its goals. It could also be due to referrals into the C3 being made from the clinic's care coordinators, limiting the healthcare provider's contact with the C3 as whole. A follow-up survey in 2018 may determine whether these connections have been made and if C3 activities are impacting services and care coordination at the healthcare provider level. As other C3s further engage their healthcare providers, surveys of these groups may reflect these system changes/awareness as well.

Clinic Manager Interviews

While healthcare providers may not be especially aware of the specifics of the C3 initiatives and goals, it may be that clinic managers have more engagement with the C3 initiative and have more knowledge of the organizational changes that may have occurred due to being involved with the C3. To get a sense of how clinic managers viewed the C3, telephone interviews were conducted with clinic managers from the other two implementation C3 sites (does not include the site of the healthcare provider survey). Interview 1 included the clinic manager and Interview 2 included a clinic director as well as a care manager. Both clinics were providing care coordination services to patients prior to the Iowa SIM C3.

Clinic 1 and 2 managers agreed that their operations have not changed because of the C3; however, roles and operations are constantly changing due to Medicare, other insurers, and health policy in general. Both also agree that physicians are in tune with patients' social determinants of health needs and referrals are being made to internal care coordinators and external services as needed to meet those needs. Clinic managers also agree that no data sharing is occurring between the C3s, clinics, and other social/health services organizations outside of referral forms that are faxed or entered electronically.

Clinic management at both clinics report that because of the C3, they are: 1) more aware of and updated on local health and social services and 2) aware of improved patient outcomes that can be directly attributed to the work of the C3 and improved care coordination.

Summary of Stakeholder Experiences

Each C3 is developing at a different pace and is adjusting to statewide Iowa SIM requirements as needed. Year 1 stakeholder data collection for the six C3s indicates steering committee members are on board, aware of, and participating in the development of C3 activities and are confident about project plans and intended outcomes. Healthcare provider involvement in any of the initiatives is still unclear, however, clinic management appears to be aware of and participating in C3 development and accessing the C3s to improve patient outcomes. Additional details about the surveys and interviews can be found in [Appendix D](#).

Status of Care Coordination and Referral Efforts

The C3 initiative has a variety of goals related to the SIM but one of the original intentions for the C3 communities was to be a vehicle for delivery system transformation by establishing coordinated patient care to link clinical and community-based services and address social determinants of health.

During the initial site visits and again at the end of award year 1 for the C3 grants, we asked the lead staff for each C3 initiative to self-rate their progress with some of the tactics advocated in the Care Coordination SSP to get a sense of where the C3 communities were with regard to care coordination activities. For each of the tactics under the care coordination objectives assessed, progress was ranked from 0-5:

- 0=Not Applicable/Not Intending to Implement
- 1=No Activity
- 2=Planning Underway
- 3=Developing
- 4=Implementation Initiated/Underway
- 5=Completed/Fully Operational

Scores were calculated for each site by summing the status rankings and dividing by the number of tactics. The scores presented in Table 3 are aggregated by the three developmental and three implementation sites as they were designated during C3 Award Year 1.

Table 3. Baseline and Year 1 C3 Self-Assessment of Care Coordination Activities

Objective (# Tactics)	Dev C3s Baseline	Dev C3s End of Award Year 1	Imp C3s Baseline	Imp C3s End of Award Year 1
1.1 Advance patient centered care practices (7)	3.0	3.3 [+]	3.5	3.2 [-]
1.2 Facilitate the impactful delivery of healthcare services (5)	2.5	2.9 [+]	3.7	3.4 [-]
1.3 Establish coordinated connections to needed community-based services (3)	3.0	3.3 [+]	3.8	3.6 [-]
2.1 Develop multi-discipline patient-centered care teams (6)	1.8	2.2 [+]	2.3	2.3
2.2 Use of HIT to facilitate cross-communication and documentation (4)	3.0	3.4 [+]	2.3	2.8 [+]
2.3 Establish standardized processes and protocols for collaborative care delivery (3)	2.4	3.1 [+]	3.0	3.3 [+]
2.4 Enhance collaboration among healthcare providers, community-based services, and the payer community (3)	1.8	2.0 [+]	2.3	2.8 [+]
3.1 Align community-based services for each patient/service recipient to ensure greatest impact (3)	3.6	3.9 [+]	4.0	4.0
3.2 Connect clinical services with community-based services (4)	3.3	3.8 [+]	3.9	3.5 [-]
4.1 Promote and enhance the use of HIT to identify, track, and monitor population health (3)	2.7	3.2 [+]	2.9	3.1 [+]

[+] = An increase in score from baseline to year-end assessment; [-] = A decrease in score from baseline to year-end assessment.

At the initial assessment, most of the developmental C3 communities rated themselves in the planning or developing (mean score of 2-3) stages of implementing these care coordination tactics. At the end of C3 award year 1, for all of the objectives, the C3 communities showed movement up the progress scale. Individually, one developmental site reported all tactics remained the same except for advances in 3 tactics from the planning to development stage. Another developmental site reported no changes in 29 of the tactics. For the 12 tactics that did progress at this site, most moved from the planning to developmental stage. The third developmental site reported advancement in 30 tactics including 14 tactics moving to the complete and/or fully operational stage. In all, the developmental sites are progressing well with regard to their care coordination activities and should be ready to be implementation sites in C3 award year 2.

At the initial assessment, most of the implementation C3 communities rated themselves in the developing or implementing (mean score of 3-4) stages of care coordination strategies. At the end of C3 award year 1, the C3 communities showed movement up the progress scale for four objectives, movement down the progress scale for four objectives, and two objectives stayed the same. Individually, one implementation site reported implementation initiated or underway for all tactics by year-end. However, at this site, no tactic was reported as complete and/or fully operational. Another implementation site reported advancement in 15 tactics including 4 tactics moving from *no activity* to *developing*. The third implementation site reported many of the tactics moving back to *planning underway* from more advanced status and they attributed this decline to the changes made to the SIM C3 program as requested in the 2017 request for proposals (RFPs). Still, this site did report advancement in 5 tactics and 1 tactic remained *complete and/or fully operational* at year-end. In all, progress in use of care coordination tactics for the implementation sites from C3 award year 1 vary which may be the result of the sites adjusting to the C3 programmatic changes for award year 2 that were indicated in the 2017 RFP.

Over all C3s, comparing the initial to year-end assessment, there were 18 tactics with little to no change in status.

Two tactics had *no change* in status across all six C3 initiatives:

- Establish person and family engagement as a standard of care through inclusion practices at the direct level of care through leadership/administration, and
- Create processes for clinical and community care communication encompassing closed-loop referrals for community services.

At least four C3s indicated *planning is underway* to:

- Encourage involvement of team member participation in care services in alignment with highest scope of practice, and
- Align payer-supported educational strategies with prioritized evidenced-based practices for patient-centered care and coordination of services.

Four C3s indicated they are *developing*:

- Educate patients and healthcare providers on evidence-based principles and best practices of care coordination.

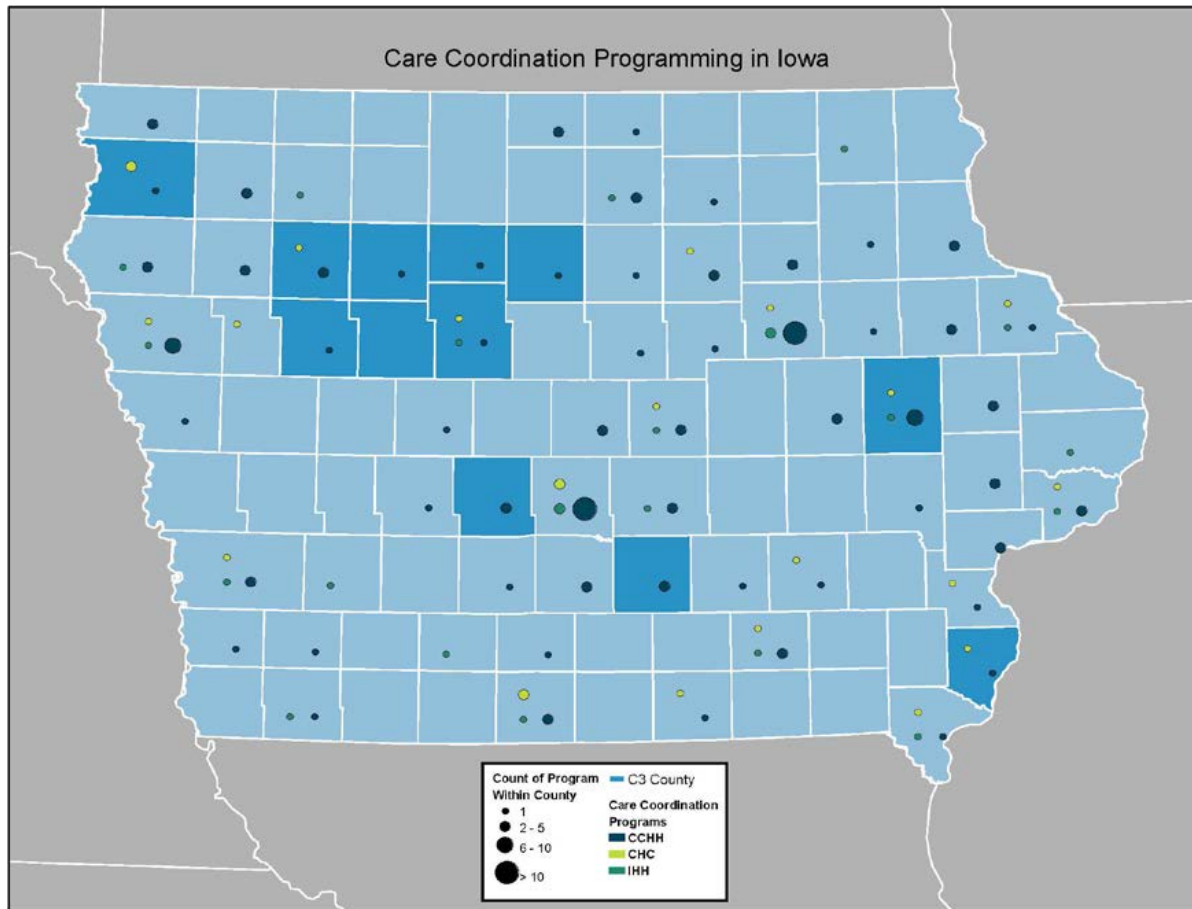
At the local/regional level, the C3s were designed to include a multi-sector group of stakeholders including healthcare providers, community based providers, public health organizations, and social services to implement care coordination strategies and referral processes to meet both the clinical and social determinant of health (SDH) needs of their population. Two examples of how these referral processes work at the local level in a C3 community can be found in [Appendix E](#).

Statewide, there are several programs and/or providers that also provide enhanced care coordination to communities and/or defined populations. Some of the most prominent include:

- Chronic Condition Health Homes (CCHHs) – An Iowa Medicaid program targeting members with chronic conditions to provide primary care and help patients manage their health and coordinate their care with end goal of improving their health.
- Integrated Health Homes (IHHs) – An Iowa Medicaid program targeting adults with serious mental illness and children with serious emotional disturbance and providing them with a team of professionals to provide whole-person, patient-centered, and coordinated care.
- Community Health Centers (CHCs) – Local, non-profit, community-owned health care providers who provide primary care to low income and medically underserved communities and coordinate care for patients including dental, pharmaceutical, mental health, specialist care, and community based services.

The C3 programs, in addition to providing care coordination and referrals, can leverage these other state programs and providers and work with them to achieve this particular SIM goal. The following map provides the geographical distribution of these programs/providers across the state.

Figure 2. Care Coordination Programming Map



CCHH (Chronic Condition Health Homes) CCHH is a Medicaid program which provides primary care for adults with chronic conditions in a PCMH model (Patient Centered Medical Home).

IHH (Integrated Health Homes) IHH is a community-based Medicaid program which facilitates care coordination for adults with serious mental illness (SMI). IHHs also coordinate care for children with a Serious Emotional Disturbance (SED), but child-only providers are excluded in the above map.

CHC (Community Health Center) CHCs provide primary care to low income and medically underserved communities and coordinate care for patients including dental, pharmaceutical, mental health, specialist care, and community based services.

C3 county Community and Clinical Care (C3) Initiatives promote referral systems and coordination between clinical providers and community services at a county or regional level.

As can be seen in the map, the C3 communities have many opportunities to collaborate with existing programs and providers. Also of note in the map is an indication that there are still some areas in Iowa that may be underserved with regard to access to enhanced care coordination.

Changes to the C3 Initiative in C3 Award Year 2 (SIM AY3)

As a result of the July 2016 site visit by CMMI and its federal partners plus the changes in payment to the healthcare delivery system as a result of MACRA, the Iowa SIM staff made extensive revisions to its operational plan that included several significant changes to the C3 initiative for its second award year cycle. Some of the most salient changes involved:

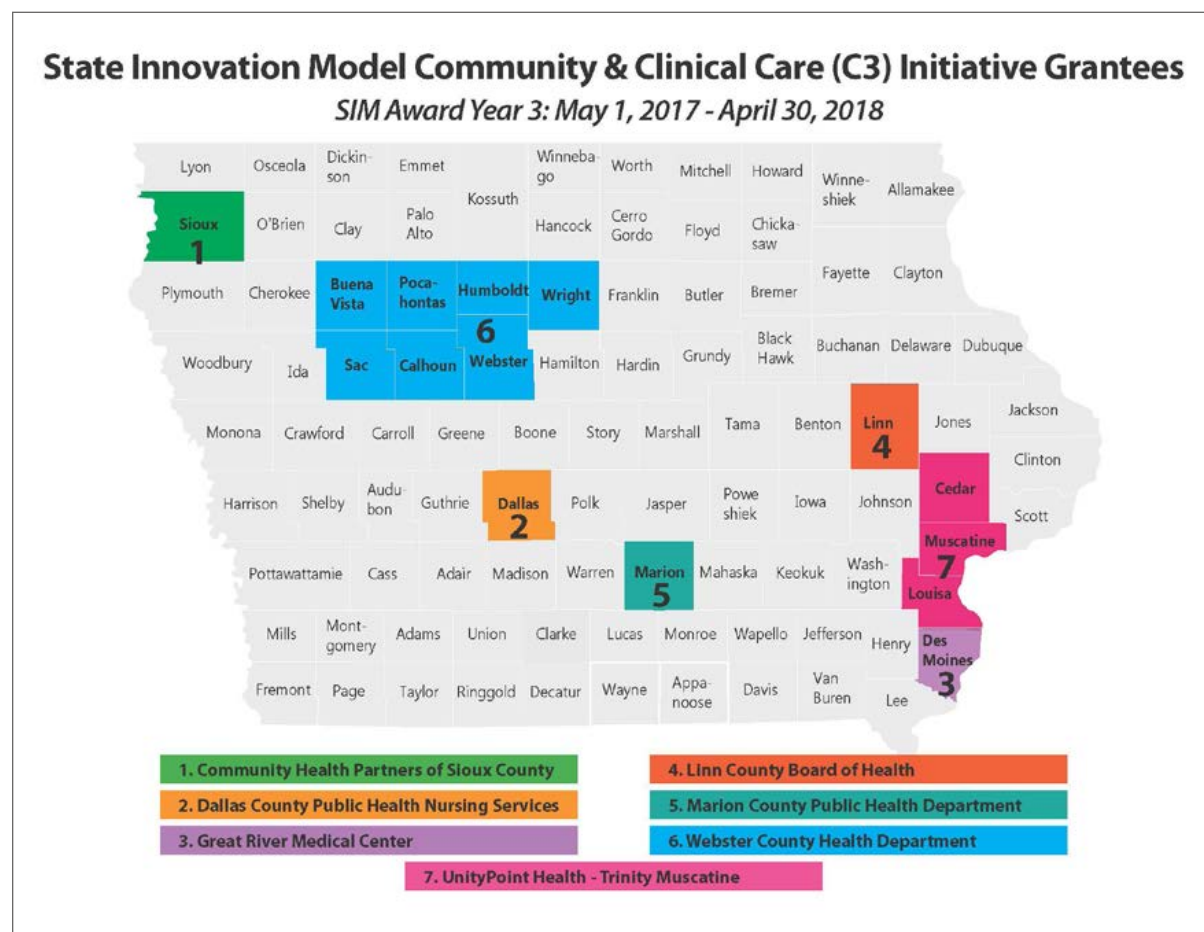
- C3 Service Areas and Designation
- Using Accountable Communities of Health (ACH) as the model for C3 framework
- A shift of the target population for measurable outcomes to be on individuals with diabetes
- Additional requirements designed to align C3s with other SIM initiatives

C3 Service Areas

All of the existing C3 communities were awarded funding to continue working under the SIM

C3 Initiative. Two C3 sites reduced services areas, specifically, the Marion County Public Health Department site originally covered eight counties and now includes a single county (Marion), and one of the counties (Hamilton) associated with the Webster County Health Department C3 did not continue participation leaving the Webster County C3 with seven counties. Thus, the service areas for the C3 initiative dropped from 19 counties in the first implementation year (SIM AY2) to 12 in the second year (SIM AY3). Because of this change, an additional round of the SIM C3 RFP process was initiated that focused on applicants being required to be a hospital, hospital system, and/or medical clinic to be eligible for funds. The application for this RFP was June 22, 2017 and the new C3 site was chosen in July 2017. The newest C3 site is UnityPoint Health-Trinity Muscatine and its service area includes Muscatine, Cedar, and Louisa counties. The UnityPoint Health-Trinity Muscatine C3 site began its SIM C3 activities on August 1, 2017 so for this reporting period, we will not be focusing on this new C3 site because they are just beginning their SIM-related activities. The following map provides the C3 sites and associated service areas for SIM AY3 (C3 AY2).

Figure 3. Map of Award Year 3 C3 sites



In addition to the changes in service areas for the C3 sites, the sites are also no longer designated as “developmental” or “implementation.” Previously, the Marion, Des Moines, and Linn county C3 sites were developmental sites and the Sioux, Dallas, and Webster county C3 sites were implementation sites. For AY3, all C3 regions are considered the same and are implementing their activities according to the 2017 RFP requirements.

ACH Framework and Clinical Partnerships

The ACH model was designed to bring various stakeholders together to improve the health of a community. The 2017 iteration of the C3 RFP included criteria to increase and strengthen clinical partnerships within the C3s. In particular, five components of the ACH model were required of applicants.

- 1) Financial and Administrative Functions – management of grant budgets and planning.
- 2) Integrator Organization – an entity outside of the clinical healthcare delivery system that

functions as the lead entity for bringing various stakeholders together.

- 3) Governance (Steering Committee) – a group that provides leadership and strategic health planning for the C3 community. The steering committee membership had to include representation from the local public health agency/board of health, at least one Accountable Care Organization (ACO), at least one hospital, a primary care provider from each involved health system or hospital, and the integrator organization.
- 4) Multi-Sector Partnership (Coalition) – a group of stakeholders from a variety of community sectors including, but not limited to, area agencies on aging, governmental bodies, Federally Qualified Health Centers (FQHCs), community-based nonprofits, educational institutions, law enforcement and correctional agencies, etc. All steering committee members and at least one community member from the target patient population must have membership on the coalition. The role of this coalition is to implement SIM-related activities (tactics) and serve to advise the steering committee.
- 5) Sustainability – Development of specific ways to ensure the C3 work would be sustainable beyond the SIM award period.

In addition to requiring these five elements of the ACH model, the RFP required specific workforce capacity which included a C3 project director, a data coordinator, and at least one community-based care coordinator. These roles were required so that C3 sites had a lead contact for interactions with SIM staff and to enable the collection and use of clinical data to support the population health roadmap.

Focus on Diabetes and Requirement to Integrate other SIM Initiatives

In SIM AY3, a major change for the C3 communities was a requirement to focus their activities on improving the health of a particular target population, namely individuals with diabetes. This change was implemented to provide a way for the C3 sites and the SIM project to test initiatives and measure progress within a specified target population with the intent of expanding successful initiatives to other populations over time. Action plans for AY3 were required to detail how the sites would improve the health of individuals with diabetes in line with the Roadmap to Population Health.

Award requirements included the following SIM-related activities for the C3 population with diabetes:

SSPs

C3 sites are required to use tactics from the SSPs to improve care for the target population. In particular, C3 sites must develop activities for each of the following tactics within the Diabetes, Care Coordination, Healthcare Acquired Infection (HAI), and Obesity SSPs.

Table 4. Required SSP Tactics to be Implemented by C3s

Diabetes (9 tactics)	Care Coordination (5 tactics)	Obesity (1 tactic)	HAI (1 tactic)
1.2 – B	1.1 – F	3.2 – A	1.1 – A
2.2 – A	1.2 – C		
2.3 – B	1.3 – A		
3.1 – A	1.3 – B		
3.1 – B	2.2 – A		
3.2 – A			
3.2 – C			
3.2 – D			
3.4 – B			

A detailed description of the SSP objectives, associated tactics, and measurement targets required of the C3 sites can be found in [Appendix E](#).

Based on the award year-end (April 2017) C3 site self-assessments on their progress towards implementing the care coordination tactics, the C3 sites are at various stages of implementation for the required tactics as they move into C3 award year 2. The following table shows each required care coordination tactic, the progress levels for tactic implementation, and how many C3 sites rated themselves at each level. All sites were at least in the planning stage for each of the required tactics

with two sites already fully implementing two of the tactics. Based on their self-assessments at the end of C3 award year 1, all C3 sites appear to be primed to be able to meet these care coordination requirements as they head into award year 2.

Table 5. C3 Progress on Implementation of Required Care Coordination Tactics (end of AY1)

Required Care Coordination Tactic	Planning Stage	Under Development	Implementation Initiated	Fully Operational
1.1f. Promote the implementation of comprehensive and high quality health risk assessments (HRAs) that identify patient, clinical, social, and community needs.	2	2	2	0
1.2c. Designate defined care coordination roles and/or responsibilities with the clinic, practice, or organization.	2	2	2	0
1.3a. Increase recognition and capacity to address SDH through education and incorporation within HRAs to identify patient-specific needs.	2	1	3	0
1.3b. Identify available assistance within the community and establish points of contact to enable resource sharing and referral.	1	1	3	1
2.2a. Promote the use of available HIT resources to allow mutual access to patient care information from all appropriate members of the patient care team, i.e., Iowa Health Information Network (IHIN), shared electronic health records (EHR) view, and messaging functionalities.	1	3	1	1

Data Collection, Sharing, and Reporting

The C3 sites are required to comply with the following activities related to data collection, sharing, and reporting in C3 award year 2.

- Health Risk Assessments (HRAs) – Required to include activities that increase the use of AssessMyHealth (AMH) by providers collaborating with the C3 project. Data compiled from the HRAs will be aggregated and shared back with the C3 sites for process improvement activities.
- SIM Data Portal – This is a data collection portal and dashboard designed and managed by the Iowa Healthcare Collaborative (IHC) to collect process and outcome data from the C3s. The process and outcome data requirements are included in [Appendix F](#) & [Appendix G](#). C3s must 1) collect required process and outcomes data and submit that data to the SIM Data Portal on a monthly basis, 2) use the information assimilated by the SIM data portal and provided on the dashboard to inform their quality improvement activities, and 3) report on referrals for SDH.

Health Information Technology (HIT)

The following are the requirements for the C3 sites with regard to HIT in C3 award year 2.

- Iowa Health Information Network (IHIN) – Collaborating hospitals and the local public health entities must connect to and use the IHIN.

- Statewide Alert Network (SWAN) - C3 communities are required to include in their project activities plans to use the SWAN. The plans had to include ways to 1) assure that the hospitals in their service areas send their admission/discharge/transfer (ADT) data to the SWAN engine and 2) use the alerts sent by the SWAN to coordinate care for the target population.
- HIT for Care Coordination – Planned use of an IT system for care coordination for both clinical and SDH needs of patients.
- Lifelong Links website⁶ – C3 communities must use the Lifelong Links website and options counselors.
- Sustainability Planning – C3s must have plans to address the sustainability of HIT activities and efforts after the C3 project period including identifying funding sources to support IT systems and staffing resources to continue use of the systems.

Value-Based Purchasing (VBP)

C3 sites are introduced to the concept of VBP through the use of performance incentives and disincentives (i.e., upside/downside risk). C3 integrator organizations are required to track the following measures:

Process Measures

- Total # of individuals enrolled in a Diabetes Self-Management Education and Training (DSME) program in the service area
- Total # of individuals enrolled in a National Diabetes Prevention Program (NDPP) in the service area

Outcome Measure

- NQF 0729 – Optimal Diabetes Care (Composite Measure)

Using 2016 participant data as the baseline, C3 sites are required to track progress on each of the above measures from baseline to the third quarter of AY3. Payment would be tied to progress in the following manner:

- Upside Risk: Incentive of \$3000 for each process measure that shows at least a 1% improvement and \$3000 for any improvement on the outcome measure. Maximum incentive payment = \$9000.
- Downside Risk: Disincentive of \$2000 will be applied to contract payments for each process measure and outcome measure for any decrease in measurement. Maximum disincentive = \$6000.
- No Risk: For measures that remain stable throughout the period, no incentives or disincentives will be applied.

Technical Assistance (TA)

C3 sites will be required to participate in SIM TA activities in the following ways:

- Learning Community Events – At least one steering committee member from each C3 site must attend each event. They are encouraged to have more representation at the events.
- Additional TA participation – Regularly scheduled calls, routine site visits, bi-annual contractor meetings, regional trainings, and webinars.
- SIMplify website⁷ - Use of SIMplify for communications and access to resources: C3 directors must register in SIMplify and other personnel and stakeholders are strongly encouraged to register and C3 registrant(s) must post in the discussion forum at least twice per contract year. Strong encouragement (not required) to log in to SIMplify every week to access resources and respond to discussion threads.

⁶ Available at <https://www.lifelonglinks.org/about/>

⁷ Available at <https://simplify.healthdoers.org/>

Statewide Alert Notification System (SWAN)

The SWAN is a part of an HIT infrastructure investment through the SIM to promote better care coordination within the healthcare delivery system. The SWAN is a software technology hub that uses ADT (Admission, Discharge, and Transfer) files from participating hospitals to formulate alerts to providers and care teams when one of their patients has a hospital admission or an emergency department (ED) visit. The SWAN tool is intended to help transform the healthcare delivery system by improving the quality of care coordination activities and, as a result, reduce the rates of preventable readmissions and preventable ED visits.

In essence, the SWAN engine works as a conduit for the information sent by participating hospitals about their ADTs and the member eligibility data sent to SWAN by providers (Medicaid ACOs in particular) and Medicaid MCOs. The SWAN engine creates alerts to the provider community about their patients that have had an event. Eligibility files which include the patient lists for the entity for which alerts should be sent are provided to the SWAN engine monthly. ADTs come in from the participating hospitals at all times. The SWAN compiles alert reports, batches them, and sends them out on a nightly basis to the participating hospitals and providers (ACOs). The final step is for recipients of the alerts (ACOs, providers) to incorporate the reports into their organizational processes so that care teams can improve care coordination for patients during important care transitions surrounding hospital-based events.

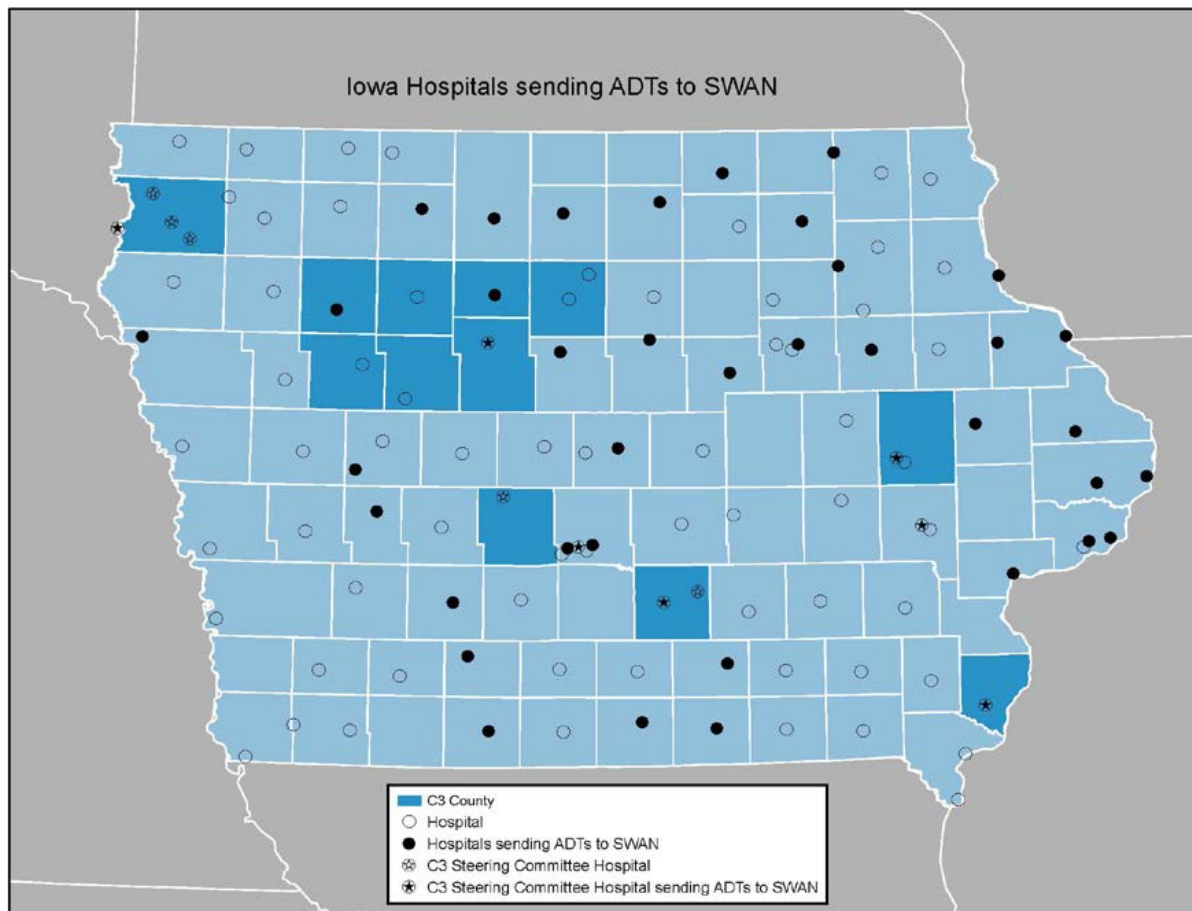
Specifically, for the SWAN to have the intended impact on care coordination and alignment with other SIM objectives, its implementation will need to include several components. First, the SWAN system needs to receive eligibility files from the targeted payers (Medicaid MCOs) and providers (Medicaid ACOs) and, eventually from other payers and providers in the state to achieve full functionality and sustainability. Also, all hospitals in the state (118 total) will need to participate by sending their ADT files to the SWAN. Then, alerts will need to get to providers in a timely manner (ideally in real-time). Finally, and perhaps most critically, alert recipients (ACOs, health systems, providers) would use the reports to improve patient care. The following table provides the current status (during this reporting period) of the first three of these components and the ultimate goals for the SWAN over time.

Table 6. Current Status of SWAN and Future Goals

	Payers sending eligibility files to SWAN	# Hospitals sending ADTs to SWAN engine	Providers and Payers receiving daily SWAN alerts
Current Status	All Medicaid MCOs: <ul style="list-style-type: none"> • UnitedHealthcare • Amerigroup • AmeriHealth Caritas • Medicare (pilot planned) All Medicaid ACOs: <ul style="list-style-type: none"> • Broadlawns UnityPoint Health Partners • Iowa Health Plus • Mercy Health Network 	51	Medicaid ACOs: <ul style="list-style-type: none"> • Broadlawns UnityPoint Health Partners • Iowa Health Plus • Mercy Health Network Medicaid MCOs: <ul style="list-style-type: none"> • UnitedHealthcare • Amerigroup • AmeriHealth Caritas
Ultimate Goal	UI Health Alliance Additional Payers: <ul style="list-style-type: none"> • Medicare • Wellmark (private insurer) • Other Providers in Iowa 	All Hospitals in Iowa: 118	Medicaid ACO: <ul style="list-style-type: none"> • UI Health Alliance Other Providers in Iowa such as: <ul style="list-style-type: none"> • Medicaid Health Homes • Rural Hospitals

The following map provides the geographical distribution of the 118 targeted hospitals in Iowa, which ones are participating in the SWAN by sending ADTs, and an idea of which of those hospitals might fall within the C3 regions. All 118 hospitals are indicated by a circle. The C3 counties are indicated in blue. Hospitals with representation on C3 steering committees are indicated by a circle with a star in the center. If the hospital is sending alerts to the SWAN, the circle and/or star is filled in.

Figure 4. SWAN Network Map



Data sources: Hospitals sending ADTs from IHIN staff on September 29, 2017
C3 Steering Committee hospitals from IDPH staff via C3 work plans July 3, 2017
Iowa Hospital Data from Iowa Hospital Association (2013-2015) Retrieved August 23, 2017

After its initial launch in 2015, SWAN system had to halt operations in September 2016 to address HIPAA compliance issues. The HIPAA issues were resolved in October 2016 and by December 2016, the SWAN was again operational and work began again to increase participation. During its hiatus, as the state SIM team worked on a solution, there was the real potential for momentum and enthusiasm about the initiative to drop, thereby making it hard to ramp up again. However, as evidenced by the table and map of SWAN activity, the SWAN initiative was able to make progress toward its end objectives with, at the time of this report, all three Medicaid MCOs sending eligibility files, 43% of all hospitals sending ADTs, all Medicaid ACOs and MCOs receiving daily alerts. Educational and outreach efforts continued throughout this reporting period to try to get additional provider and payer participation in the SWAN.

As the main technical infrastructure of the SWAN has been taking shape, there is renewed interest in how the system is being used to transform care delivery and improve care transitions. In other words, how is the SWAN information being used by providers? There is some evidence on a case-by-case basis of providers using the information to improve care. Part of the SIM AY3 SWAN initiative is to ramp up TA activities for healthcare providers to help them integrate SWAN alerts into their organizational processes and use them to improve patient care. More about the TA activities related to this SWAN objective can be found in the [Technical Assistance \(TA\)](#) section. As part of our evaluation activities in the coming year, we will be interviewing administrators and healthcare providers who are intended SWAN users (i.e., the five Medicaid ACOs) to gain an understanding of if and how they use of the SWAN system within their organizations.

Other SWAN/IHIN Developments in 2017

- Expanding to other Payers – In 2017, SIM staff are developing a pilot program for the five Medicaid ACOs to include the Medicare population in SWAN activities.
- Under new management - The SWAN is part of the Iowa Health Information Network (IHIN). In 2015, the Iowa Legislature authorized movement of the IHIN into a non-profit organization that was no longer publicly managed (through IDPH). In March 2017, this change to non-profit status occurred when the Hielix/Koble Group was selected to take over the IHIN. The Hielix team as of March 31, 2017 has managed the IHIN and the SWAN.
- Environmental scan - As part of an HIT implementation workgroup, IDPH and Hielix have met informally to establish goals and discuss implementation of an environmental scan of provider readiness and capacity. Readiness surveys to a variety of providers were fielded in September and October 2017.
- New IHIN platform – In July 2017, an RFP was released to choose a vendor to provide an improved platform (one with greater functionality and ability to connect providers) to house the IHIN (and SWAN). As of this writing, a new platform vendor has been chosen. Progress updates on the status of this change will come in the next reporting cycle.

Data Collection, Sharing, and Reporting

There was an emphasis during this reporting period on developing and refining data collection, sharing, and reporting mechanisms for payers, providers, health systems, and other stakeholders to use to improve patient health at the individual level and plan for policy and/or organizational changes and resource investments at the system level. Three of those data initiatives include:

- Community Scorecards
- Health Risk Assessments (HRAs)
- Value Index Scores (VIS)

Community Score Card

Community score cards are feedback tools created from the data reported by the C3 communities through the SIM Portal database. Each C3 site is required to submit particular data elements to the SIM Portal including SDH referral data, tobacco QuitLine client referrals, a diabetes National Quality Forum (NQF) measure, and two process measures. In addition, the SIM portal database also includes administrative claims specific to county-level Medicaid potentially preventable ED visits, other NQF quality measures submitted by participating clinics, Hospital Improvement Innovation Network (HIIN) hospital data, and SDH data from IDPH. Thus, the SIM Portal acts as a data repository and engine (managed and administered by the IHC SIM team) to aggregate these data into a community-specific scorecard that can be shared back to each community. The purpose of the scorecards at the community-level is for stakeholders to use them to drive quality improvement.

During this reporting period, progress in the development and use of Community Scorecards included:

- Finalizing data use agreements to be able to access the necessary data pieces for the SIM Portal
- Refining the SIM data portal to accommodate and assimilate the data
- Development of the Community Scorecard Templates
- Populating the Community Scorecards with aggregate data
- Providing at least 1 Community Scorecard to each C3 Site

An example of a Community Scorecard Prototype can be found in [Appendix H](#).

Health Risk Assessments (HRAs)

Health risk assessments (HRAs) are screening tools (typically questionnaires) completed by patients that are used to provide both the patient and provider with an evaluation of the person's health status, health risks, and quality of life. The intention of HRAs is to identify risks, provide feedback, and introduce interventions that could promote health and/or prevent disease. Based on the use of

health risk assessments within the Iowa Health and Wellness Plan (IHAWP)⁸, the Iowa SIM decided to invest effort in using an HRA tool as a way to not only identify SDH issues for individual patient interventions but, in aggregate, to identify SDH issues for community intervention and promote SIM goals.

In SIM AY3, the SIM project embarked on a plan to use HRAs to address SDHs by encouraging the use of a standardized HRA, namely the AssessMyHealth (AMH) tool that is used in the Healthy Behaviors Program of the IHAWP. To do this, the first step was to come up with a set of SDH questions that could be added to the HRAs. Next, the use of the revised HRA tool (AMH or others) would need to diffuse among various stakeholders. The SDH data from the HRAs would then need to be aggregated and analyzed to identify SDH need. And, then the aggregated SDH data could be shared with stakeholders and used to address SDH needs and develop policies and/or interventions.

During this reporting period, progress in the development and use of a standardized HRA to capture SDHs included:

- Two workgroup meetings were held in June and July 2017 to gather stakeholders and begin the task of standardizing measures and data collection for SDH.
- The stakeholder workgroup developed a list of measures for each of five categories of SDH.
- Establishment (through RFP requirement) of a pilot test of the SDH measures in the AMH HRA by the C3 sites. Each site will be required to submit 100 completions of the AMH from their Medicaid members diagnosed with or at risk for diabetes by then end of AY3 (April 2018).

Future work will include collecting data from the C3 pilot, developing aggregated reports, and establishing plans for dissemination of the data to stakeholders. In addition, work will proceed toward expanding the use of HRAs with SDH questions by linking the SDH data (in particular, a single question asking the respondent to rate their confidence in being able to manage and control most of their health problems) to VBP within the Medicaid MCOs. More detail about the SDH workgroup underway can be found in [Appendix A](#).

Value Index Score (VIS) Dashboard

The VIS is a quality metric comprised from claims and encounter data that is generated at the ACO/ Provider level based on their attributed population. It was designed to be a tool for measuring health system change and the components that make up that change. Based on six primary care specific domains (derived from sixteen key process and outcome measures), the VIS is a single, composite score that is supposed to drive quality improvement by quantifying how well a provider is caring for their entire patient population. The VIS score is made available to providers/organizations through an online dashboard that is periodically updated and a main purpose of the VIS within the SIM is to support VBP efforts by providing a quantifiable basis for quality-based payments

During this reporting period, progress in the development and use of the VIS included:

- Establishing the collection of usable claims encounter data from the Medicaid MCOs for reporting VIS scores
- Educating the Medicaid MCOs about the VIS tool
- Promoting buy-in from the Medicaid MCOs about using the VIS tool and working to include the VIS baseline for 2018 performance measures in MCO VBP contracts

⁸ Iowa Department of Human Services. Healthy Behaviors Program. Available at <http://dhs.iowa.gov/ime/about/iowa-health-and-wellness-plan/healthybehaviorsprogram>

Technical Assistance (TA) - Delivery System and Payment Reform

Providing TA to the various stakeholders involved in both primary drivers (payment and delivery system reform) is one of the main activities supported by the SIM. Technical assistance activities are intended to educate stakeholders on the many facets of payment reform and delivery system change and provide information and data for health systems to use to enact change.

The IHC and subcontractor TA activities included a wide variety of opportunities, strategies, and venues to provide education and training to, along with information sharing among C3 communities and other interested stakeholders. [Table 13](#) provides a summary of TA activities implemented over this reporting period.

Statewide Learning Events

SIM Learning Community events were designed to be day-long in-person conferences to provide education and training for healthcare providers, payers, care coordination teams, hospitals, ACOs, MCOs, and C3s in their respective roles in the SIM Initiative. The conferences feature speakers, panels, and networking breaks. During this evaluation period, IHC held two Statewide Learning Communities, along with a C3-specific Virtual Learning Community and C3 Virtual Workshop.

The November 2016 Learning Community conference had 310 attendees, 80% of which rated the learning collaborative content as *excellent to very good*. The July 2017 Learning Community conference had 110 attendees, and also received *excellent to very good* ratings from 80% of attendees. The content of the conferences is outlined in the Table 7. Topics covered in SIM Statewide Learning Events below.

Table 7. Topics covered in SIM Statewide Learning Events

November 9, 2016	July 12, 2017
<ul style="list-style-type: none">• Status update and preview of next steps• MACRA and reimbursement• Care Coordination Model: Rural C3• Care Coordination and Managed Care• Medication Management• Social Determinants of Health	<ul style="list-style-type: none">• Care Coordination and Community Service Integration• Accountable Care Organizations• Social Determinants of Health• Physician Engagement• Community and Clinical Care Coordination- C3 example

Targeted TA to C3 Communities

The IHC is primarily responsible for providing TA and building capacity within C3 sites to ensure that C3 communities are equipped to accomplish SIM goals. Each C3 site has an assigned TA/Quality Improvement (QI) advisor from IHC who conducts site visits and can provide small group and individual level TA at each site.

Two half-day learning events were held online for additional TA specific to C3s. In response to feedback requesting more cross-site networking, IHC held a dedicated Virtual Learning community in March 2017 that was primarily developed and led by C3s, and allowed C3s to share resources, common problems, and promising solutions. Linn County and Dallas County C3 sites detailed their approaches to tracking and closing SDH referral loops using TAVhealth and Salesforce, respectively. The four hour virtual workshop held in June 2017 included responding to TA requests involving data and clarified the expectations for data collection and metric reporting. Content of the learning events can be found in Table 8.

Table 8. Topics covered in C3 Specific Learning Events

SIM C3 Virtual Learning Community March 9, 2017	C3 Virtual Workshop June 22, 2017
<ul style="list-style-type: none"> • Using and Sharing Data • Year in Review • Resource Sharing • Success Stories/ Promising Practices • Q&A 	<ul style="list-style-type: none"> • Overview of SIM AY3 plans • Updates from HIIN and TCPI • C3 sites share success stories, plans and local partnership management • AIMM presentation • Community Scorecard • Statewide Strategies • Responding to TA requests

HC-SIM Data portal

A central project to C3 TA during this reporting period was the culmination and use of the IHC-SIM data portal, a secure, web-accessible reporting database to collect C3 project-specific metrics from each of the communities. In AY1, AY2, and into AY3, data collection design and methods for the IHC-SIM data portal were being developed, built, and refined. IHC selected measures, secured data use agreements with contributing entities (C3 sites, IDPH, IME, HIIN, and C3 adjacent health clinics), and added input functionality to transfer data directly from existing systems. A first round of data was collected in the IHC-SIM Portal in April 2017. Each contributing entity has limited access to the portal to enter and review data that is relevant to their role and goals in the SIM.

The IHC-SIM Data Portal holds 31 data points related to the primary C3 goal of care coordination, more specifically, diabetes management, medication management, readmission prevention, SDH screening and referral, and obesity prevention. (See [Appendix G](#) for full list of measures). The IHC-SIM data portal includes well-established metrics from various sources, including SIM-specific National Quality Forum (NQF) measures from 25 hospitals and clinics in C3 counties, MIPS aligned measures, C3-specific data for tobacco Quitline and SDH client referrals, C3-specific process measures, and potentially preventable admissions data for Medicaid patients in each of the C3 counties. IHC is responsible for compiling the data and producing a community scorecard and providing that scorecard to the C3 site. Additional measures specific to diabetes management and prevention were added to the portal in AY3, reflecting data-driven support for the IDPH population health roadmap.

Quality Improvement (QI) Work Plans

To support and develop routine process improvement practices, IHC developed a tool to assess needs, track progress, and identify resources for the C3s through the submission of quarterly Quality Improvement (QI) Work Plans. The QI Work Plans ask the C3 sites to self-assess six areas of their operations, including: care coordination (infrastructure, referral process, operational effectiveness, and programmatic focus), general updates, SDH data collection and reporting, diabetes, obesity, and tobacco. The QI work plans prompt the C3s to report best practices, current work, performance improvement methods, and opportunities for assistance in the aforementioned areas. The C3 sites completed and submitted an initial round of QI work plans in April 2017, which reflected data collected in Q4 of 2016 and the no cost extension period. Upon receipt, IHC reviewed and added analysis before adding QI Work Plans to each C3 Data Portal site.

Virtual Education

Data Portal Train Along Series

IHC developed a webinar to build capacity and efficacy amongst C3 sites around using and sharing data. The Data Portal training series also served as a feedback loop, so IHC could better identify and understand areas of need and obstacles at each C3 site. The live SIM Data Portal Train Along Series addressed CMS project requirements and program outcomes, as well as focusing on the needs of the initiative. The following list of components are covered in the SIM Data Portal Train Along Series.

- 1) Portal Navigation - The Basics
- 2) Structure and Reporting - Making The Portal Work for the Community
- 3) Data Import Templates
- 4) Using Data for Process Improvement Planning - Advancing the Build
- 5) Baselines and Benchmarking - Making A Case for Change
- 6) Repository Needs Assessment

Webinars

SIM-specific webinars were produced as part of the TA plan for C3s. After the real-time webinar content concluded, the webinars were converted to videos and posted on the SIMplify website for reference.

Table 9. Technical Assistance webinars

Topic	Date	Presenting organization
IHIN and pharmacy / HIE	August 8, 2017	IPA
Person and Family engagement	September 7, 2017	IHC
Person and Family engagement	October 5, 2017	IHC

Social Media

In addition to resource sharing on the SIMplify website, SIM education and training events are posted on IHC's Facebook and YouTube sites.

Podcasts

The Iowa Primary Care Association (IPCA) developed a podcast series (seven installments), titled "Iowa Communities Working to Address Social Determinants of Health." The series was designed around the social determinants of health framework developed by Healthy People 2020. The podcast episodes were published on March 17, 2017, and posted to the IHC YouTube account and the SIMplify website. Table 10 provides a listing of the podcast series topics, featured organizations, and count of podcast views.

Table 10. "Iowa Communities Working to Address Social Determinants of Health" Podcast Series

Topic	Featured Organization(s)	Views*
Introduction and Overview of Social Determinants of Health	Kaiser Permanente Iowa Primary Care Association Child and Family Policy Center	54
Statewide Programs/Resources for Addressing Social Determinants of Health	1st Five SafeNetRX USDA Rural Development Food Bank of Iowa Iowa Area Agencies on Aging	85
Neighborhood and Built Environment	Decatur County Public Health	39
Health and Health Care	Crawford County Memorial Hospital	93
Social and Community Context	Ethnic Minorities of Burma Advocacy and Resource Center	57
Education	Clinton After School Program	34
Economic Stability	Proteus, Inc.	122

*View data retrieved October 27, 2017

SIMplify Newsletter

The SIMplify newsletter was launched in March 2016 and continues to keep C3 stakeholders informed about the SIM on a regular basis. Stakeholders access the newsletter as a recipient on a mailing list or by visiting the SIM website. The newsletter informs readers of upcoming events and webinars organized by the Iowa SIM team and the national SIM team. Along with promoting SIM sponsored events, the SIMplify newsletter shares learning opportunities related to SIM goals, presented by SIM leaders and other organizations not directly affiliated with the SIM, but share common goals or interests. The current issue and past issues of the SIMplify newsletter can be found [here](#).

SIMplify Website

The SIMplify website, a web-based communication platform, was launched during the first implementation year and was re-vamped in April 2016. The website facilitates communication between SIM staff and C3 members. The main features of the SIMplify website are the resource library and discussion board.

As of August 31, 2017 of this reporting period, the SIMplify website had added 19 members to total 117 members, which included representatives from C3 sites, IHC, IDPH, IPCA, IPA, IMS, and IME. Members of the SIMplify website have the option to subscribe to discussion e-mails or a daily digest to receive e-mails about activity happening on the site.

In late July 2017, the SIMplify website was upgraded to a new format, which added features that included a “C3 specific” discussion group, and a reorganization of the resource library by topic. The SIMplify website was developed to “share information, resources, and tools and promote interaction and networking.” To evaluate the usage of the discussion forum on the SIMplify website, an interaction rating scale was developed. The rating scale was designed to measure how C3 representatives were interacting with TA partners and other C3 sites ([Table 11](#)). The collection of this data covers the time period since the SIMplify website’s inception (April 2016) through August 31, 2017.

Table 11. SIMplify website

Classification of Discussion Posts	Count
SIM TA discussion post Discussion entry posted by SIM TA personnel (IDPH, IHC, IPCA, IPA), with no replies from a C3 representative	80
Standalone discussion post (C3) Discussion entry posted by a C3 representative with no replies	7
SIM TA initiated discussion Discussion entry posted by SIM TA personnel with at least 1 reply from a C3 representative	9
C3 initiated discussion Discussion entry posted by a C3 representative with a response from SIM TA personnel	3
Discussion across C3 sites Discussion entry posted by a C3 representative with a response from another C3 site	4
Total posts	103

Along with ongoing communication about SIM activities, the discussion board hosts topical discussions. Starting in August 2016, two-week topic cycles were introduced to inform participants and encourage discussion among the C3 partners. Topic cycles were sporadic during most of this reporting period, but included care coordination (November 2016) and population health (September 2017).

Site Visits and Phone Conferences

IHC staff conducted several on-site visits to the C3 communities and held monthly phone conference calls with the leadership of the C3 coalitions. The intention of these visits and calls was to maintain a consistent contact and presence with the C3 communities to be able to educate, answer questions, and provide and receive feedback about progress toward SIM goals. Examples of participants

involved and issues addressed in site visits during this reporting period include: IHC and IDPH held concurrent site visits with the C3s to discuss budgeting and IHC faculty visited C3 sites to educate on QI methods and MACRA. More details about site visits can be found in [Table 13](#).

Targeted TA to Healthcare Systems

A new addition to the AY3 SIM activities is the provision of TA to providers in C3 adjacent hospitals and clinics and Medicaid ACOs to build system capacity that aligns with the C3s quality and process improvement activities. Strategies are developed to improve delivery system reform by promoting tools, pursuing advancement of HIT, offering technical assistance, and implementing population health strategies aimed at healthcare delivery improvement.

A primary component of IHC's plan to deliver TA to healthcare systems is engaging providers. Leadership at IHC has met to define strategies to identify provider champions, prepare providers for VBP, and align existing programs (e.g. TCPI and HIIN).

Provider readiness survey

To assess the environment and needs for VBP support at a provider level, IDPH and IHIN are currently developing a Provider Readiness Assessment survey. The survey and results are projected to be completed in February 2018.

Engaging Health Systems through Work Group Participation

Two workgroups specific to physicians and pharmacists are being planned by IHC to engage health system practitioners in community care coordination activities. The goal for the pharmacy and physician engagement workgroups is to inform TA, address barriers, champion SIM goals, and encourage engagement in healthcare system delivery transformation. These workgroups have an advisory role as IHC executes TA in communities and health systems, specifically, providing guidance on mechanisms to create sustainability, goal-based application of data, and communication. The groups meet quarterly and are represented by five Physicians and four Pharmacists.

Subcontractor Consultation

The IHC, while primarily responsible for providing technical assistance to C3 communities and healthcare systems, have also utilized various subcontractors to leverage existing networks of professional association members and access specific expertise. Table 12 provides an idea of TA focus areas and the entity providing TA in that area.

Table 12. Technical Assistance Providers

Responsible Entity	TA Focus Area
Iowa Healthcare Collaborative (IHC)	Social Determinants of Health <ul style="list-style-type: none"> • Develop and deploy referral loop and feedback system for C3s Diabetes Management <ul style="list-style-type: none"> • Develop and deploy referral loop and feedback system for C3s • Diabetes Statewide strategy Quality Improvement <ul style="list-style-type: none"> • Provide quarterly community scorecards • Monthly QI/PI Site Visits • Manage IHC-SIM Data Portal • Community Scorecard Workforce Development <ul style="list-style-type: none"> • Statewide conferences • Webinars • On site meetings Support and Resource Sharing <ul style="list-style-type: none"> • SIMplify website • SIMplify Newsletter • Conference calls • E-mail • Social Media
Iowa Primary Care Association (IPCA)	Social Determinants of Health <ul style="list-style-type: none"> • Seven SDH podcasts • Three SDH briefs
Iowa Pharmacists Association (IPA)	Medication Safety <ul style="list-style-type: none"> • Provide resources to C3 coalitions Readmission Prevention <ul style="list-style-type: none"> • Provide resources to C3 coalitions
Iowa Medical Society (IMS)	Guidance on payment reform and QPP (Quality Payment Program) <ul style="list-style-type: none"> • Promote resources on website to assists physicians with MIPS (Merit Based Incentive Payment System) Community level involvement <ul style="list-style-type: none"> • Dr. Evans and IMS membership promote
Iowa Hospital Association (IHA)	Quality Improvement <ul style="list-style-type: none"> • Work directly with C3s to Update Quality Improvement Plans • Facilitate RCPI connected to scorecards
Alliance for Integrated Medication Management (AIMM)	Medication Management <ul style="list-style-type: none"> • Virtual C3 Learning Community Presentation Care Coordination <ul style="list-style-type: none"> • Facilitated group meeting at one C3

HIIN and PTN

The IHC recognized the overlap between the SIM and two existing CMMI initiatives it manages, the Practice Transformation Network (PTN)⁹ and Hospital Improvement Innovation Network (HIIN)¹⁰. The PTN facilitates the Transforming Clinical Practice Initiative (TCPI), which provides training directly to providers. As a result, in AY3, SIM TA leveraged the networks, resources, and infrastructure of these two existing programs to access providers and hospitals, expand SIM TA offerings, and prepare for sustainment beyond the SIM. For example, clinic providers reached

⁹ Iowa Healthcare Collaborative. About the Transforming Clinical Practice Initiative. Retrieved from <https://www.ihc.org/compass-ptn/about-the-tcpi/>

¹⁰ Iowa Healthcare Collaborative. About Compass HIIN. Retrieved from <https://www.ihc.org/compass-hiin/about-compass-hiin/>

through SIM TA were granted access to virtual education sessions offered by PTN and HIIN, regardless of enrollment. Other examples of leveraging existing programs to support the SIM include using HIIN data in the C3 Community Scorecards and QI advisors promoting the adoption of best practices regarding population health identified from the TCPI.

SIM Support within ACOs

During this reporting period, IHC shifted from the original strategy to embed liaisons in the three major healthcare systems (Unity Point Partners, Mercy ACO, and University of Iowa Health Alliance), and instead utilized existing ACO staff to support SIM initiatives; specifically, assist with IHC TA activities, promote communication and transparency, and provide input. During this reporting period, IHC constructed an ACO subcontract Scope of Services, and began training subcontractors in SIM healthcare systems work and deliverables. At this time, providers are incentivized through contracts to work with IHC as points of contact, but the long-term plan is to build upon the commitment and transition to voluntary collaboration. Details about the proposed roles and responsibilities of staff contracted to support the SIM goals are outlined below.

1. *Engagement & Collaboration– Facilitate Relationships and Communication to Achieve Strategic Objectives*
 - Engage health system stakeholders in population based, community applied strategies to include common focus Statewide Strategy plan tactics.
 - Support integration of community care teams and expand their use within the delivery systems
 - Collaborate with the IHC sub-contractors to implement aligning state and federal initiatives
 - Engage the provider community to be champions for healthcare transformation
 - Identify and engage physician champions for healthcare transformation
 - Identify and engage Patient and Family Engagement champions for healthcare transformation
 - Identify and engage QI champions for healthcare transformation
2. *Integration and coordination – Promote Linkage and Learning to Develop Integrated Delivery Networks*
 - Integrate with community systems to support population health
 - Internal/external negotiations that generate mutually applied best practices to improve quality and enhance value
 - Internal collaboration across the health care system to create evidence based service pathways for defined patient populations
3. *Deploy Data and Informatics – Collection, Analysis and Use of Performance Information*
 - Alignment with HIIN/TCPI work to develop a common measure set that ties to quality and value based methodologies
 - Support the utilization of IT best practices
4. *Professional Development – Training, Consultation and Education to Establish the New Roles and Skills Emerging from Transformation of Service Delivery*
 - For the achievement of the above goals and strategic initiatives, identify resources used to provide training and consultation
 - Expand physician/clinician engagement strategies and tools to support participation in healthcare transformation
 - Orient leadership on continuous improvement applications and service integration in quality and value
 - Promote implementation of Medication Safety and Effectiveness statewide strategy tactics

Table 13. Summary of the TA Activities

Activity	Intent/Description	Timeline Implemented	Venue/Stakeholders
SIMplify Newsletter	A way to update stakeholders on SIM activities, share relevant resources, and promote upcoming events.	Began in March 2016; Monthly dissemination	Online/email distribution – C3 and others
SIMplify Website	A website developed as a venue for the C3 communities to access information and resources, share files, and participate in discussion threads.	Began in April 2016; ongoing	Online – C3 and others
Webinar series	IHC and subcontractors present webinars on a variety of topics available to SIMplify users	August 2017 September 2017 October 2017	Online – C3 specific
Learning Community Events	Day-long conferences designed to provide SIM-specific education and training to stakeholders	Held 3 times/year November 2016 March 2017 (C3 specific) July 2017	In person – C3 and others
Virtual Workshops	Virtual workshops use C3 TA requests to set the agenda	June 2017	Online – C3 specific
Site Visits	Site visits to C3 communities were conducted to introduce the SIM, provide education and training, and incorporate feedback from C3s into planning for future events.	AY2 Q4 – 7 visits NCE – 4 visits AY3 Q1 – 5 visits	In person – C3 specific

Payment Reform – Align Payers in Value Based Purchasing (VBP)

VBP is broadly defined as linking healthcare provider payment and incentives to improved quality of care and performance. This payment methodology is intended to hold healthcare providers accountable for both the cost and quality of care they provide. VBP programs can take on many forms but all attempt to encourage reductions in inappropriate care and identify and reward the best-performing providers. A primary driver of change in Iowa's SIM is to encourage an increase in the use of VBP within the three major payers for healthcare in the state, namely Medicaid, Medicare, and Wellmark. To do this, SIM teams worked to increase both the understanding of and ability to participate in VBP contracts for providers. As a SIM goal, establishment of VBP is measured by an increase in the number of provider contracts in a VBP arrangement and number of lives covered under VBP contracts.

Partnerships between the IME, Medicaid ACOs, and Medicaid MCOs are critical to improving healthcare delivery, lowering the cost of care, and advancing population health. While the ultimate goal is to encourage VBP participation by all payers in Iowa, at this time, the focus of the VBP initiative continues to be Medicaid, specifically, VBP contracting between the MCOs and the five Medicaid ACOs.

Quality Measures

To reach the SIM's goal of system-wide use of standardized Clinical Quality Measures (CQMs), quality measurement was a recurring agenda item during MCO workgroup meetings. Wellmark and Medicaid both have a history of using the VIS quality measurement tool, a Treo Solutions product, to measure and track providers' quality outcomes in their corresponding ACOs (adopted in 2012 and 2015, respectively). Because the VIS tool was already in use in the pre-MCO Medicaid program and Wellmark, the SIM team pressed its adoption within the three Medicaid MCOs in AY2 and into AY3.

Since the November 2016 publication of final rules for MACRA (Medicare Access and CHIP Reauthorization Act), the SIM AY3 payment reform goals and milestones shifted to prepare the state for its implementation. Because of the Iowa SIM's overarching goal to encourage payment reform across Medicaid, Medicare, and Wellmark, the introduction of MACRA legislation impacted the strategic direction for the state's immediate work with the Medicaid MCOs. In the SIM AY3 Operational Plan, the state focused on advancing provider effectiveness under MACRA reimbursement models: 1) Advanced Alternative Payment Models (APMs) and 2) Merit-based Incentive Payment System (MIPS). Aligning with MACRA measures became a priority as the SIM team developed standardized quality measures for the state's MCOs during this reporting period. The state's payment reform activities focused on incorporating MIPS quality measures into the current Value Index Score (VIS) and VBP contract negotiations.

Essentially, the state shifted focus to building consensus around VIS measurement inclusion criteria in VBP contracts, while aligning with MACRA criteria. Rather than requiring MCOs to adhere to the established VIS, the state and MCOs aimed to reach consensus upon appropriate attribution and VIS measures before adoption across MCOs. [Table 14](#) provides details about progress and obstacles encountered during this reporting period in pursuit of standardizing quality measures.

Table 14. Tasks and Progress towards VBP Milestone: “Manage Quality Tools to support APMs (3M VIS/TCOC Dashboard, Claims and Encounter Data)”

Task: Include VIS quality measurements in VBP contracts between MCOs and ACOs	
Issue Encountered	Progress Toward Issue Resolution
Perceptions of validity and compatibility of VIS score methodology	Information sessions were led by IME and 3M to explain TCOC calculations and elicit MCO feedback VIS and TCOC outcomes will not determine MCO incentives, but reporting requirements will be incorporated in 2018 contracts with ACOs Data cycles from quality measures reported in 2017 will be referenced in 2018 contracts as a baseline to compare 2018 performance
Align cost measures to set capitation rate - IME uses TCOC (facilitated by 3M) and MCOs use MLR (facilitated by Milliman)	TCOC was reevaluated by the state and adjusted to reflect input from MCOs MCOs will be required to use VIS in 2018, but also allowed to use MLR calculations rather than TCOC to determine payment rates
Task: Share raw claims/encounter data with ACOs in Medicaid [Due 4/28/17]	
Issue Encountered	Progress Toward Issue Resolution
	Delayed until MCOs validate encounter data within VIS dashboard and review reconciliation reports
Task: MCOs report Encounter Data to support VIS*[Due 4/28/17]	
Issue Encountered	Progress Toward Issue Resolution
Provider eligibility and member attribution	Consensus was reached to only include continuous members of MCOs in calculations; In order for a member to be counted in VIS, the member must have 12 months of eligibility with the same MCO – attribution to a provider remain the same and will be based on PCP assignment or plurality of visits. Members must have 7 months of eligibility with the same MCO to be included in TCOC. Services provided by specialists can contribute to the quality score of a contracted PCP Dashboards revised to accommodate MCO view*
Task: Regular refreshes of VIS and TCOC (Online dashboard) [Ongoing]	
Issue Encountered	Progress Toward Issue Resolution
	IME and 3M ran demonstration of VIS dashboard for each MCO* VIS baseline calculated for 2017, using 2016 data
Task: Data Sharing Agreements with Delivery System in VBP [Due 4/28/17]	
Issue Encountered	Progress Toward Issue Resolution
	The VIS dashboard contains Medicaid FFS and all three MCO encounter data. Currently just the MCOS have access, but the dashboard reflects VIS results at the MCO, ACO, Tax ID and Provider level
Task: Grow Health Home model with MCOs [Due 7/28/17]	
Issue Encountered	Progress Toward Issue Resolution
	Task progress not documented during this reporting period
Task: Implement SDH integration and research (with HRA) [Due 4/28/17]	
Issue Encountered	Progress Toward Issue Resolution
	Assess My Health NCQA certified as initial health screening tool

*VBP Milestone

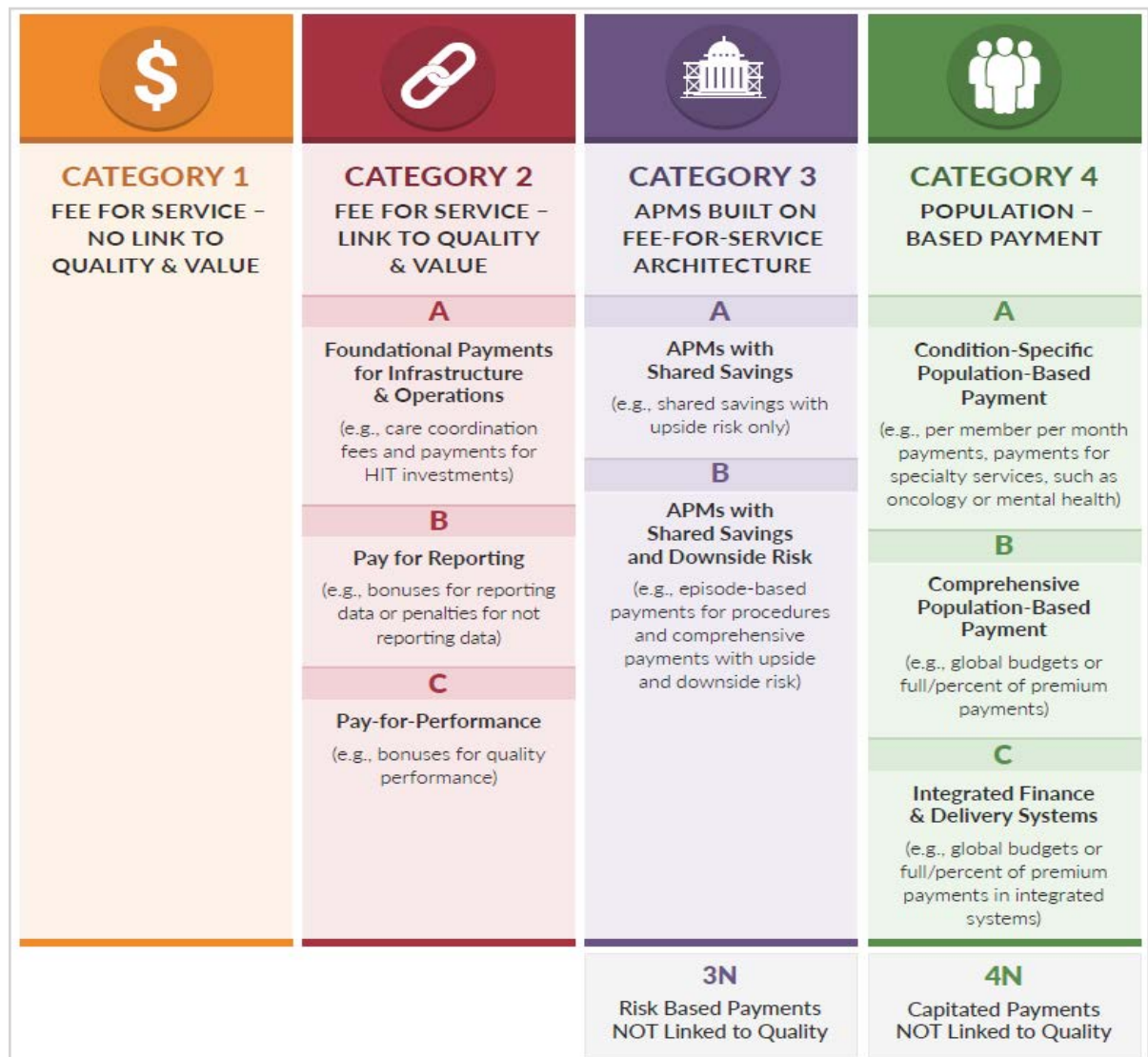
Information sources: AY3 OP Milestones, IA Health Link MCO meeting minutes, Iowa SIM team and CMMI meeting notes, Quarterly reports to CMMI

MCOs

The MCO workgroup meetings completed during this reporting period centered on aligning quality measures with MIPS and across MCOs. The SIM team continues to adjust to an evolving healthcare landscape in the state, and incorporate stakeholder needs into SIM planning and activities. The state and MCOs worked more closely on SIM VBP goals throughout the reporting period, and complex issues arose as stakeholders delved into the details of Medicaid payment reform (see [Table 14](#) and [Table 15](#)).

A central issue in the progression towards the SIM's goal of a statewide VBP payment model is differing needs and current practices in quality and performance measures. The state Medicaid MCOs and IME have met regularly (13 times from November 2016 to October 2017) to discuss parameters of the next round of contracts, which take effect in January 2018. The state utilized guidance from the Healthcare Payment Learning and Action Network (HCP-LAN) [[Figure 5](#)] to develop draft contract language that advances requirements to achieve level 3B AAPM (APMs with Shared Savings and Downside Risk) models by 2019 across all three MCOs.¹¹ Specifically, contract discussions have revolved around cost and quality measurement (VIS and TCOC methodologies) and appropriate level of risk, while maintaining flexibility for each MCO to incorporate internal metrics.

Figure 5. HCP-LAN APM Framework



¹¹ Health Care Payment Learning & Action Network Alternative Payment Model Framework and Progress Tracking (APM FPT) Work Group. Accessed on October 20, 2017 at <https://hcp-lan.org/workproducts/apm-whitepaper.pdf>

ACOs

The SIM continues to promote VBP focus and the use of VIS measures and VBP contracting within the state's five Medicaid ACOs and Wellmark ACOs. The original framework of SIM payment reform plans involved direct interaction between the SIM and ACOs through the development of VBP contracting. The introduction of privatized Medicaid managed care reassigned responsibility for ACO contracting to the Medicaid MCOs. While the transition to Medicaid MCO management happened in April 2016, VBP contracting was not a priority because much of the inaugural year of MCO management was spent paying FFS claims and building network adequacy. Although the SIM team works less directly with ACOs regarding payment reform, they have steered efforts to develop aligned VBP contract language with the three MCOs, which engage directly with Medicaid ACOs. The primary roles of Medicaid ACOs in SIM VBP activities include 1) engaging in qualifying risk based contracts with the MCOs and 2) reimbursing contracted providers with performance related payments.

During this reporting period, access to the VIS dashboard was suspended for Medicaid ACOs, and the SIM team anticipates that ACO user access will be reinstated in late 2017, after MCO users have validated encounter data in the VIS dashboard. Regular meetings between ACOs and IME also were suspended, but IME met with three ACOs in AY3 to provide overall SIM updates and discuss goals of SIM in AY3.

Medicaid ACOs should be key partners in delivery system reform regarding VBP. The SIM provides technical assistance to ACOs to prepare health systems to be successful in VBP contracts. Details about healthcare system technical assistance can be found in the [TA to Healthcare Systems](#) section.

The SIM promotes ACO membership to providers, with a goal of 50% participation of Wellmark and Medicaid providers in ACOs. In addition to SIM efforts, providers are incentivized to join ACOs through changes made by MACRA, since most ACO arrangements qualify as category 3A or 3B APM (See [Figure 5](#)).⁷

Table 15. Tasks and Progress towards APM Milestone: Implement ACO Aligned Strategy in Medicaid

Task: Qualify MCO ACO Contracts (Year 2017) [Due 5/31/17]	
Issue Encountered	Progress Toward Issue Resolution
MCOs wanted input on rates for incentives and capitation	Each MCO's legal team was allowed to contribute comments and guidance after IME drafted a contract
VIS quality measures adjusted to align on quality, cost measurement, and level of risk with MIPS	Each MCO has access to an aligned APM contract that meets state expectations for SIM*
Task: Qualify MCO ACO Contracts (Year 2018) [Due 9/1/17]	
Issue Encountered	Progress Toward Issue Resolution
	The state developed a document titled "Preliminary Areas of Agreement for the Implementation of Value-Based Contracting," which details expectations for MCOs in calendar year 2018. Two of the three MCOs submitted contracts for IME review, both contracts have been approved*
Task: Update the MCO Incentive Program [Due 5/15/17]	
Issue Encountered	Progress Toward Issue Resolution
	Requirements for a 2% payment withhold based on performance were shared with MCOs for the 2018 contracts
Task: Achieve at least one Other Payer A-APM by 2019	
Issue Encountered	Progress Toward Issue Resolution
	Requirements identified for A-APM program from final rules* MCO contracting template with requirements known to-date issued*

*VBP Milestone

Information sources: AY3 OP Milestones, IA Health Link MCO meeting minutes, Iowa SIM team and CMMI meeting notes, Quarterly reports to CMMI

Evaluation Next Steps

The PPC state-level evaluation team will continue to monitor the progress and implementation of the SIM initiative in Iowa using the methods described in this report. In the coming year, the implementation evaluation will also include conducting interviews with the key stakeholders for each of the SIM initiatives and surveying patients/clients of C3 sites to understand their experiences with C3 care coordination and referral activities.

Appendices

Appendix A. Stakeholder Engagement Progress

SIM Innovation and Visioning Roundtable

At the time this report was written, SIM Innovation and Visioning Roundtable had not been assembled due to the transition between Iowa Department of Human Services Directors. Former Director Chuck Palmer, who chaired the Roundtable, retired in June. Leadership of the SIM Innovation and Visioning Roundtable will be transferred to the current Director, Jerry Foxhoven. At the time this report was written, the state was seeking a federal facilitator to conduct the first Roundtable meeting.

SIM Public Forum

The SIM leverages three existing outlets to disseminate SIM updates in public forums, including the 1) Iowa Medicaid Clinical Advisory Council, 2) the Iowa Department of Public Health Medical Home Advisory Council, and 3) the Iowa Health Information Network e-Health Advisory Council.

SIM Public Forums were established to provide regular opportunities for two-way communication between SIM representatives and the public through three public arenas: The following table provides meeting dates and settings for these public forums.

Public Forum	Forum Dates
Iowa Medicaid Clinical Advisory Committee	January 20, 2017 April 21, 2017 July 21, 2017
Iowa Department of Public Health Medical Home Advisory Council	November 4, 2016 February 10, 2017 May 19, 2017 August 11, 2017
Iowa Health Information Network e-Health Advisory Council	Meeting dates and minutes not posted

Through public forums, the SIM team reports milestone metrics and disseminates updates regarding SIM activities. Additionally, public stakeholders and those directly impacted by SIM initiatives have an outlet to provide feedback.

SIM Website

The [SIM website](#) is housed on the Iowa DHS website and maintained by the IME Office of Healthcare Transformation. Along with continuous updates of SIM activities, vision, and goals, the SIM website contains information about public forums, meeting agendas and minutes, SIM presentations and reports, SIM guiding principles, statewide strategies, and links to SIM partner websites.

The SIM website is used to familiarize stakeholders with SIM initiatives and promote adoption. For example, press releases and success stories and best practices are posted on the SIM website.

HIT Synergy Meetings

Four primary SIM stakeholders (IME, IHC, IDPH, and IHIN) collaborated in June 2017 to begin planning for the HIT implementation workgroup. Membership of the HIT Synergy meetings focused on HIT was identified at the end of July 2017, and an initial meeting was set for early August. Two reports inform the baseline for the HIT workgroup, 1) Iowa Health Information Technology and Meaningful Use Landscape in 2015¹² and 2) IME's Provider Enrollment Survey.¹³ Along with these resources, IHIN is completing additional HIT landscape surveys and key informant interviews, with an expected completion date of November 2017. At that time, all SIM relevant data pieces from the aforementioned information sources will be compiled into a single report.

12 Zhu, Xi, Christopher Carter, and Peter Damiano. 2016. "Iowa Health Information Technology and Meaningful Use Landscape in 2015." Iowa City, IA: University of Iowa Public Policy Center.

13 Ortega, Carrie. 2017. "Provider Enrollment Survey Results." Iowa Department of Human Services Iowa Medicaid Enterprise.

Workgroups

Standardized Social Determinants of Health (SDH) Workgroup

The SIM team convened a group of stakeholders with the end goal of standardizing social determinants of health data collection across the state. Members of the workgroup met in June and July 2017, with ongoing meetings each month. The SDH workgroup utilized frameworks from Centers for Disease Control and Prevention (CDC) and Healthy People 2020 to define focus areas and structure the process. The workgroup began by creating goals and identifying obstacles and opportunities. The workgroup was able to select five key focus areas: 1) Neighborhood and Built Environment, 2) Health and Healthcare, 3) Education, 4) Economic Stability, and 5) Social and Community Context. The group compiled existing screening questions for each category (ranged from 5 to 21 questions) for consideration as potential standardized tool questions. Workgroup members reached a consensus that the screening tool should be brief, and limited to 10-15 items in total. Key findings in the workgroup meetings included the need for commonly accepted definitions, understanding and overcoming implicit bias, and creating a foundation for the timely and efficient use of the data from the individual through population levels.

Quality Metrics Workgroup

The primary goal of the Quality Metrics workgroup is to select a core set of Clinical Quality Measures (CQMs). The SIM team anticipates an initial workgroup meeting following the IHC Annual Conference and SIM Learning Community in Early November.

Pharmacy Engagement and Physician Engagement Workgroups

Two workgroups specific to physicians and pharmacists were convened by IHC to engage practitioners and coordinate care in communities. The goal for the Pharmacy and Physician Engagement workgroups are to inform TA, address barriers, champion SIM goals, and encourage engagement in healthcare system delivery transformation. Both of these workgroups are in the planning and early stages of action.

Operation of SIM feedback e-mail account

The IME Office of Healthcare Transformation manages the SIM feedback e-mail account. The establishment of an e-mail account dedicated to the SIM provides an outlet for communication between public stakeholders and the SIM team. The SIM team reported that no emails have been received at this account.

The Iowa State Innovation Model (SIM) A Look at the Health and Well Being of Iowans in the First Year (2016) of the SIM Test Model

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Introduction

The State Innovation Model (SIM) is a federal grant program administered by the Centers for Medicare and Medicaid Service's (CMSs) Center for Medicare and Medicaid Innovation (CMMI). The purpose of this grant program is to provide funding for states to develop innovative ways to address the "triple aim" of healthcare reform; namely, to improve the patient experience of care and population health while simultaneously reducing health system costs. To do this, states are encouraged to use SIM funding to transform their public and private healthcare payment and delivery systems. In 2015, the state of Iowa received a \$43 million Model Test award from CMMI to implement and test its State Healthcare Innovation Plan over the course of four years. PPC researchers will evaluate the SIM over the course of the grant period. A piece of the evaluation is a statewide survey of adults in Iowa to get an understanding of their health status, use of health care, and other issues that pertain to SIM-related goals. The following describes the methodology and results of the statewide survey conducted during the first implementation year (AY2) of the SIM in Iowa.

Methods

The statewide surveys were conducted between September 29, 2016 and April 23, 2017 using a telephone interview methodology. Interviews were administered by Computer Assisted Telephone Interviewing (CATI). A dual-frame random digit dial (DF-RDD) sample design, including landline and cell phones, was used to collect the data, with additional oversamples in C3 and control counties. Samples were provided by Marketing Systems Group (MSG); 10,000 landline and 25,000 cellular telephone numbers were sampled from their respective universe of 3,459,600 and 4,821,000 numbers throughout the entire state of Iowa.

Respondents were eligible if they lived in Iowa and were 18 years of age or older at the time of the interview. For the landline samples, interviewers randomly selected an adult member of the household using a modified Kish procedure.¹⁴

Interviews were conducted in English (n=2102) and Spanish (n=30) by trained interviewers at the Center for Social & Behavioral Research at the University of Northern Iowa (UNI). No incentives or compensation were offered for participation. Interviews averaged 20 minutes in length.

Out of the total 2,132 interviews, 1,887 were completed by cell phone while 245 were completed on landline phones. Utilizing the American Association for Public Opinion Research (2016) calculations, the overall response rate was 27.1%. The overall cooperation rate was 73.5%. The response and cooperation rates for the oversample of counties were 25.5% and 70.8%, respectively.

Survey Instrument

The survey instrument was designed to obtain information about the health and wellness of Iowans and included items specific to the particular public health goals of the SIM. The following topic areas were included on the survey:

- Need, Utilization, and Unmet Need for Health Care Services (Original items, Need/Unmet Need derived from NHIS)
- Health Status, Functional Limitations, and Quality of Life (derived from CDC Health-Related Quality of Life Measures¹⁵)
- Obesity (Original items)
- Diabetes (Original items, California Health Interview Survey (CHIS)¹⁶, Behavioral Risk Factor Surveillance System (BRFSS)¹⁷, Diabetes Distress Scale¹⁸)
- Tobacco Use and Cessation (Original Items, BRFSS5, CDC National Adult Tobacco Survey Questionnaire¹⁹)
- Nutrition and Food Security (Stages of Change Questions^{20, 21}, CHIS4)
- Physical Activity (Stages of Change Questions^{8,9}, BRFSS5, CHIS4)
- Determinants of Health – Transportation Issues (Original Items)
- Demographics (Original Items)

A copy of the questionnaire can be found in [Addendum 1](#)

14 Kish, Leslie. (1965). Survey Sampling. New York: John Wiley & Sons, Inc.

15 Measuring Healthy Days: Population Assessment of Health-Related Quality of Life. US Department of Health and Human Services. Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion, Division of Adult and Community Health. Atlanta, Georgia. November 2000. Available at <https://www.cdc.gov/hrqol/methods.htm>

16 California Health Interview Survey. CHIS 2013-2014 Adult Questionnaire, Version 5.4. UCLA Center for Health Policy Research. Los Angeles, CA.

17 CDC. BRFSS. Available at <http://www.cdc.gov/brfss/questionnaires.htm>

18 Polonski, W.H., Fisher, L., Earles, J., Dudley, R.J., Lees, J., Mullan, J.T. & Jackson, R.A. (2005). Assessing psychological stress in diabetes. *Diabetes Care*. 28, 626 – 631.

19 National Adult Tobacco Survey Questionnaire, 2009 – 2010. Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention (CDC).

20 Prochaska JO, Velicer WF, Rossi JS, Goldstein MG, Marcus BH, et al. Stages of Change and Decisional Balance for 12 Problem Behaviors. *Health Psychology*. 1994;13(1):39-46.

21 Zimmerman GL, Olsen CG, Bosworth MF. A 'Stages of Change' Approach to Helping Patients Change Behavior. *Am Fam Physician*. 2000;61(5):1409-1416.

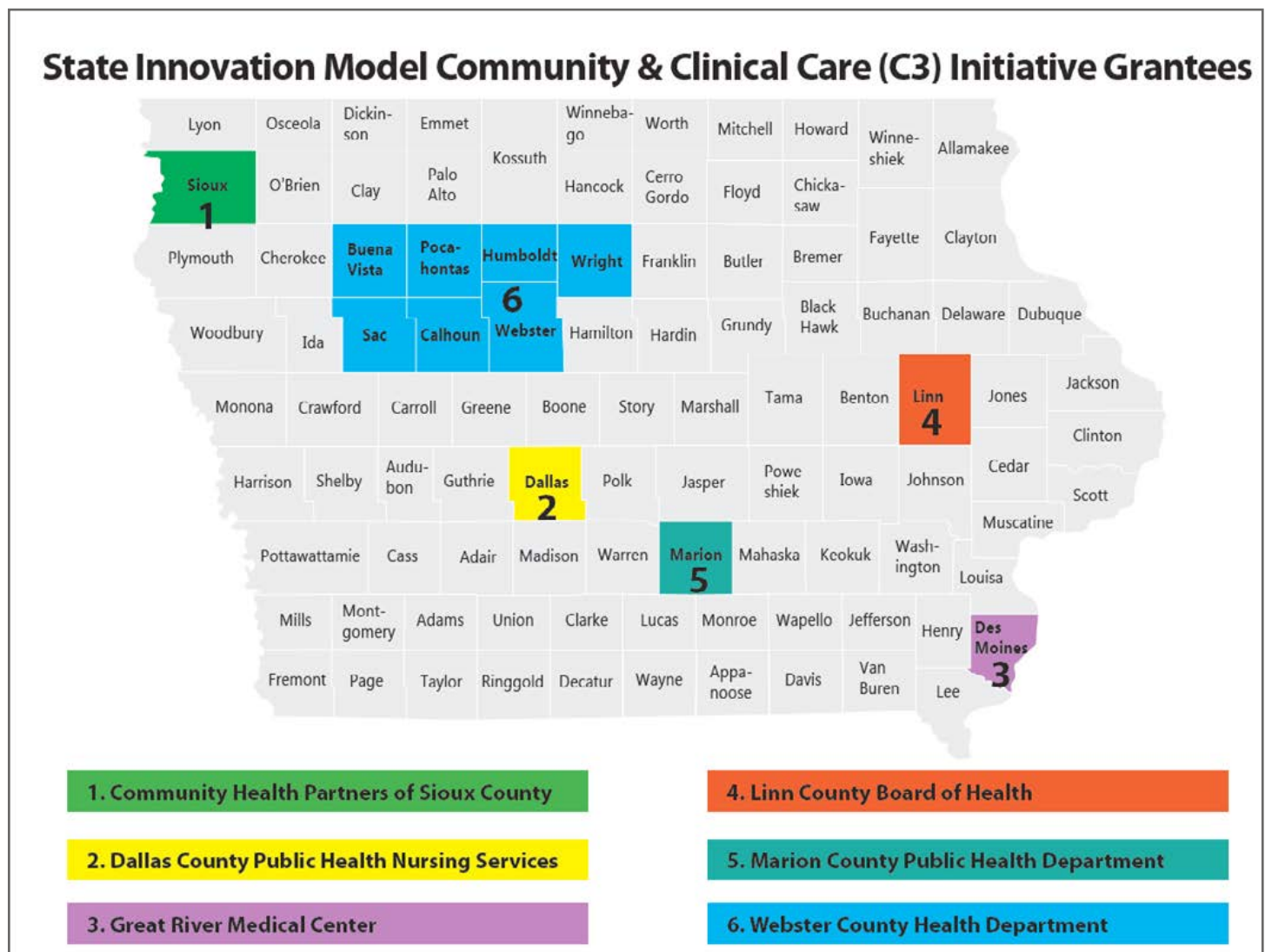
Analyses

Data were tabulated and simple descriptive statistics (means and percentages) were calculated using SAS. In this report, we present the overall statewide estimates as well as the estimates for the C3 counties (in aggregate) to provide an indication of how well individuals in the C3 counties represent the state of Iowa.

The data was weighted to be able to produce reliable estimates of the population parameters. Also, weighting also attempts to compensate for the practical limitations of a sample survey, such as differential nonresponse and undercoverage. The full weighting report provided by UNI and MSG can be found in [Addendum 2](#).

The oversampling of the C3 counties for this data collection was done for the original 19 counties participating in the first year of the C3 initiative (C3 Award Year 1/SIM Award Year 2). In C3 Award Year 2/SIM Award Year 3, the service areas for the six C3 regions dropped to twelve counties. Thus, to ensure consistency going forward, for this report, the data presented for the C3 counties is the aggregated data from the twelve C3 counties participating in the C3 initiative in C3 Award Year 2/SIM Award Year 3. [Appendix B Figure 1](#) shows the C3 counties which have aggregated data presented in this report.

Appendix B Figure 1. Award Year 1 and 2 SIM C3 sites



Limitations

There are some limitations with survey research that can affect the interpretation of the results. First, those who choose to respond to the survey may be different from those who choose not to respond and this can create biased results. A weighting strategy, as described previously, was used to in the analyses as a way to account for any differential nonresponse. Second, respondents may have difficulty accurately remembering events which may introduce recall bias. This risk may not be high because of the relatively short time period for recalling health-related events (12 months).

Results

Characteristics of the Population

Appendix B Table 1. Demographic Characteristics

	Iowa ^a N=1,711 (respondents) N=1,991,346 (weighted)	C3 Counties N=421 (respondents) N=380,393 (weighted)
Age in Years		
18-40	40%	37%
41-64	39%	43%
65+	21%	20%
Gender		
Female	51%	49%
Race/Ethnicity*		
White	90%	91%
Black or African American	3%	2%
Hispanic/Latino	6%	5%
Asian	2%	2%
American Indian	2%	2%
Education		
< High School Degree	9%	6%
High School Degree or Some College	62%	66%
College Graduate or Higher	29%	28%
Employment Status		
Employed Full or Part-Time	67%	65%
Retired	18%	17%
Homemaker or Student	8%	11%
Unable to Work	5%	3%
Unemployed	2%	4%
Has Health Insurance Coverage**	93%	94%
Household Income < \$50,000	37%	34%
Any Children in Household	38%	36%
Number of Adults in Household		
1	18%	20%
2	58%	58%
3 or more	24%	22%
Size of Community of Residence		
Farm/Rural not farm/Rural subdivision	21%	15%
Small Town < 25,000	41%	37%
City 25,000 or more	38%	48%

^aDoes not include the C3 counties

* Race/Ethnicity categories are not mutually exclusive

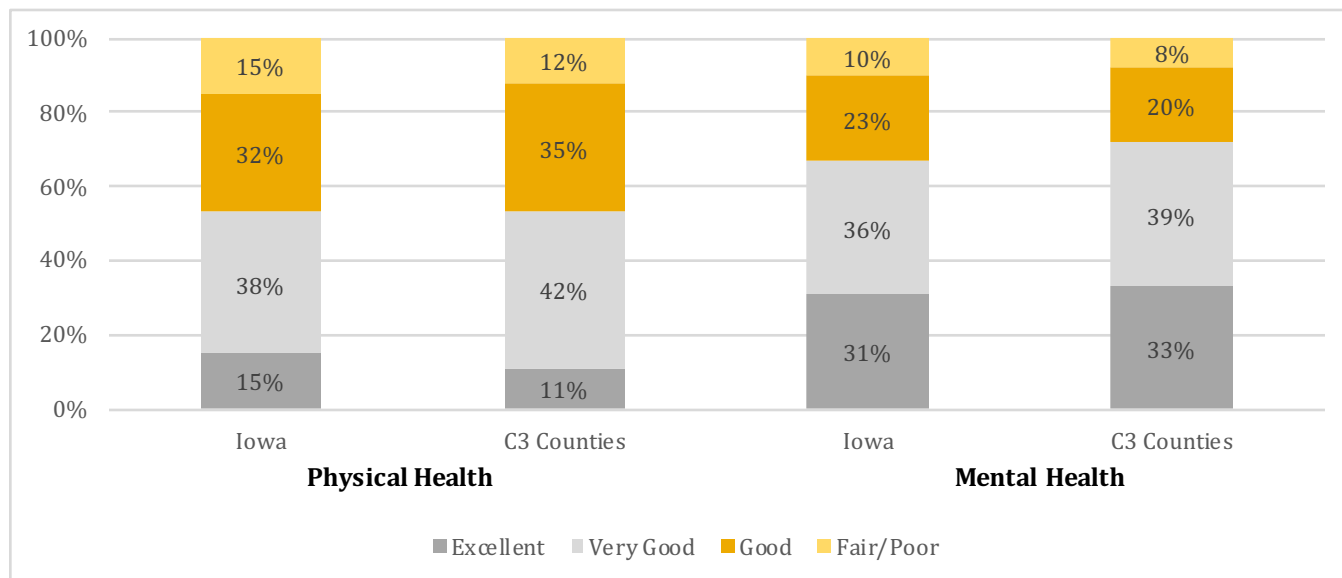
** Such as health insurance, prepaid plans like HMOs, or government plans like Medicaid or Medicare

Health Status

Members' health status was assessed in several ways in the surveys, including self-reported overall physical and mental health status, diagnosis of a chronic physical or mental health condition, functional limitations, and health-related quality of life. In addition, the survey asked participants about weight, diabetes, and smoking status.

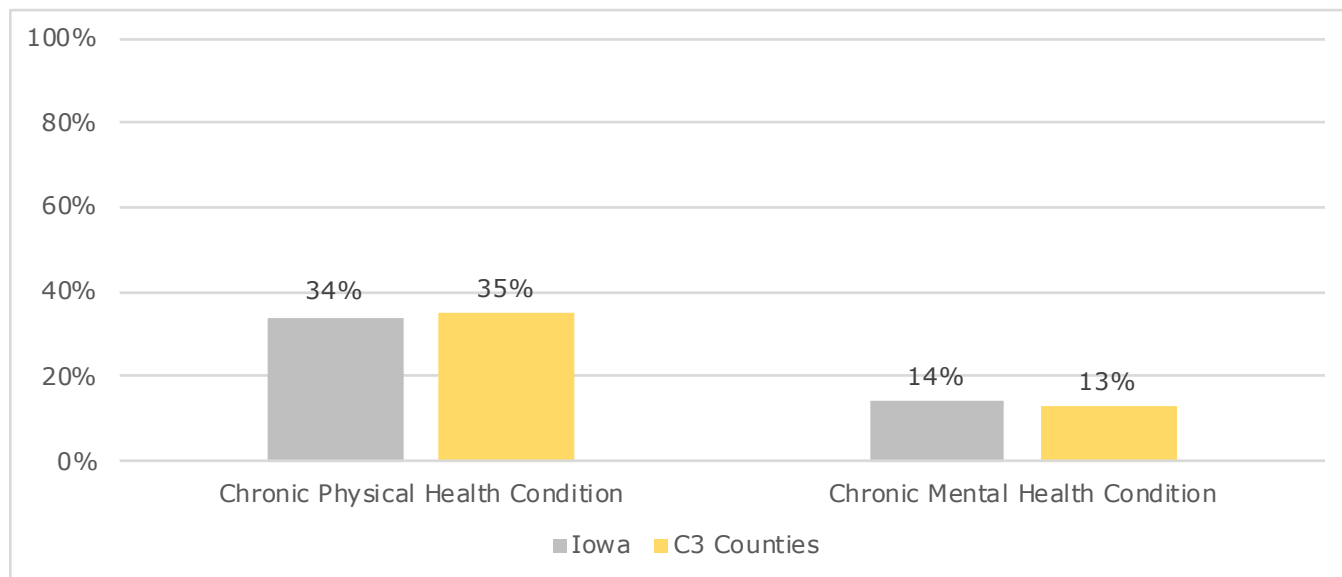
Self-Reported Physical and Mental Health Status

Appendix B Figure 2. Overall Physical & Mental Health



Participants were asked if they had ever been diagnosed with a chronic physical or mental health condition that lasted or was expected to last for at least 12 months. [[Appendix B Figure 3](#)]

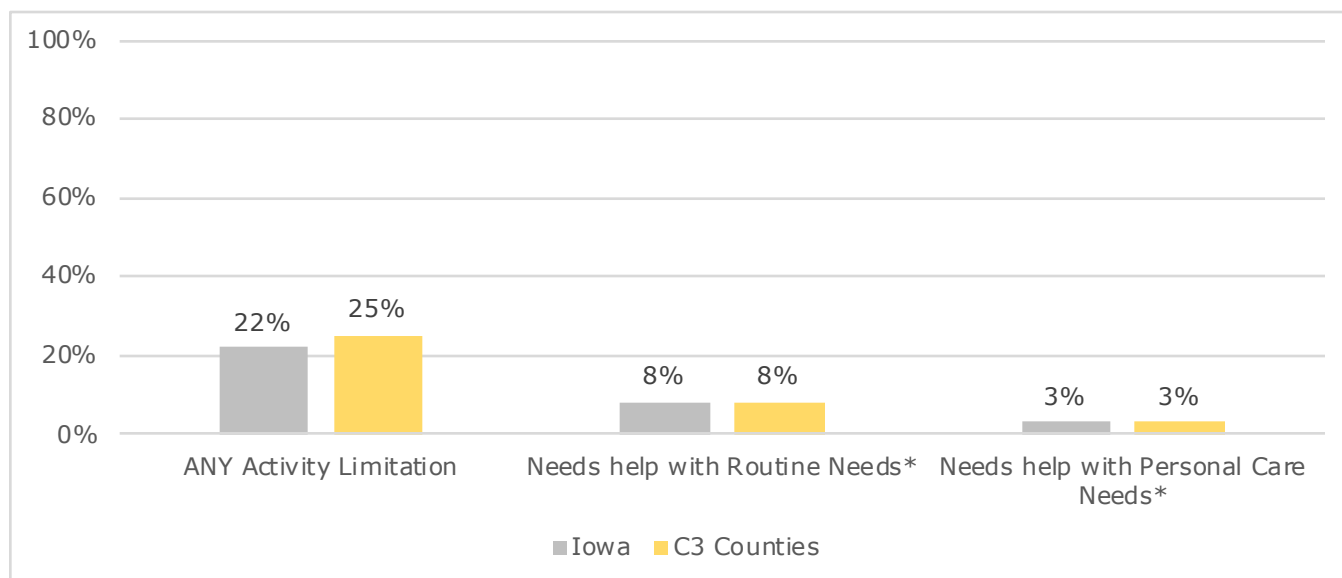
Appendix B Figure 3. Diagnosed chronic physical or mental health condition



Health-Related Quality of Life and Functional Limitations

Self-rated functional health was assessed in the surveys by asking respondents a series of questions about how their physical health affected certain daily life activities ranging from interference with work or social activities to more serious problems with ability to function independently in the home. [[Appendix B Figure 4](#)].

Appendix B Figure 4. Functional Limitations from any Impairment or Health Problem



* Routine needs such as household chores, doing necessary business, shopping, or getting around for other purposes. Personal care needs such as eating, bathing, dressing, or getting around the house.

Weight, Diabetes, and Smoking

We asked participants two questions to evaluate self-reported issues with being overweight or obese:

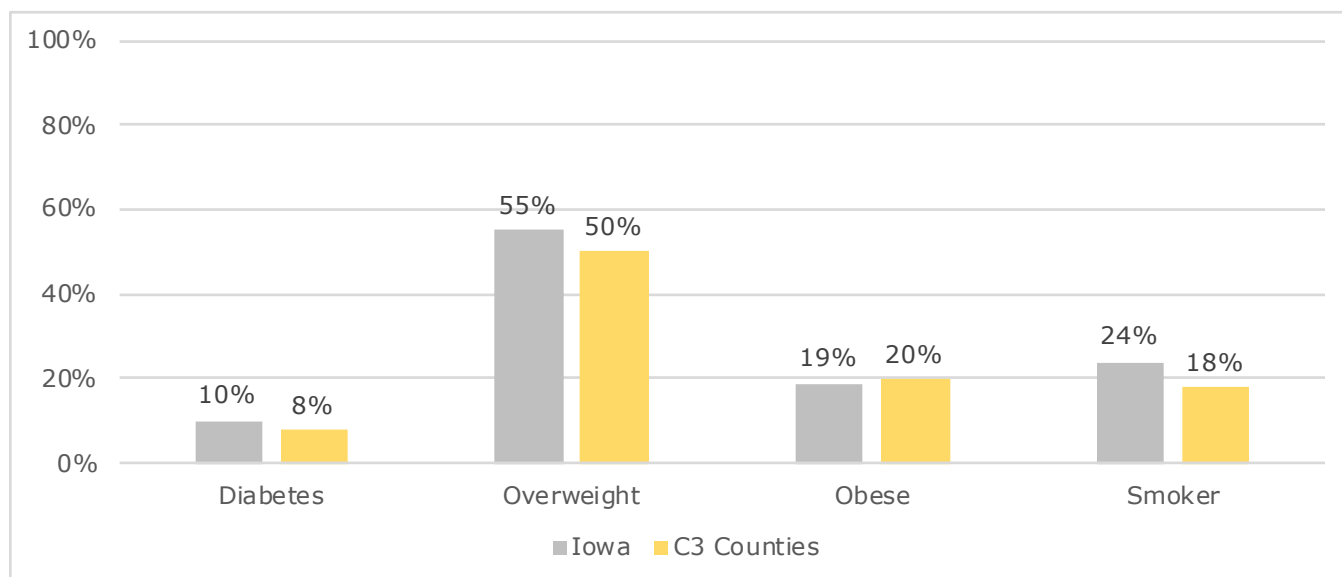
- Compared to other people of your age and height, do you think you weigh the right amount, too much, or too little? [Overweight defined as a response of *too much*]
- Have you ever been told by a health professional that you are obese? [Obese defined as a response of *Yes*]

To evaluate diabetes prevalence, we asked “Since you have been an adult, has a doctor, nurse, or other health care professional EVER told you that you have diabetes?” Participants were considered to have diabetes if they responded *Yes* to this question.

For smoking status, we asked participants whether they currently smoked cigarettes or used tobacco every day, some days, or not at all. Participants were considered to be smokers if they responded they smoked at least some days.

[Appendix B Figure 5]

Appendix B Figure 5. Diabetes, Obesity, and Smoking



Diabetes

As noted previously, around 10% of this population (n=258 respondents) reported being told by a doctor that they had diabetes. For those with self-reported diabetes, several additional questions were asked about how diabetes impacts their life, health care service utilization for their diabetes, and the management of their diabetes.

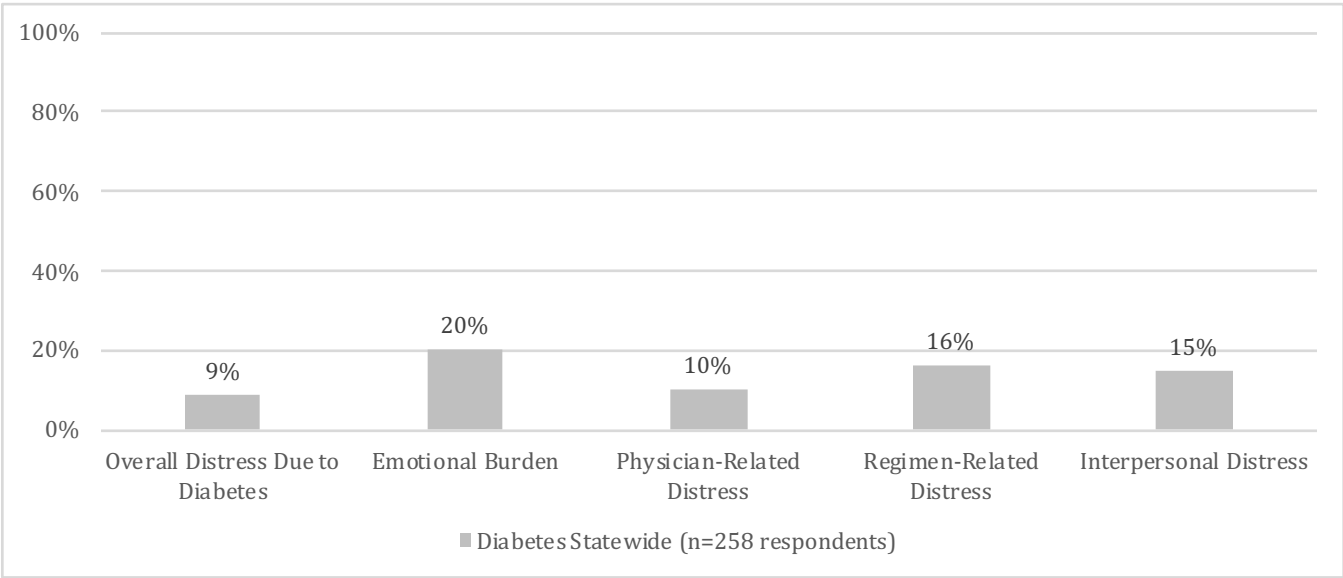
Impact of Diabetes on Quality of Life

To assess how diabetes impacts quality of life, the survey included 17 items that make up a commonly used instrument called the Diabetes Distress Scale.²² Please refer to questions 9-25 on the survey instrument in [Addendum 1](#). For each question, participants were asked to rate the severity of the problem on a scale from 1 to 6, where 1 was *Not a problem at all* and 6 was *A very serious problem*. Within the total scale, the instrument also includes four subscales:

- Emotional Burden – Intended to evaluate how much emotional distress is caused by their diabetes [Questions 9, 11, 16, 19, 22]
- Physician-Related Distress – Intended to evaluate distress due to issues related to interactions with their physician about their diabetes [Questions 10, 12, 17, 23]
- Regimen-Related Distress – Intended to evaluate distress due to keeping up with the routines that help manage their diabetes [Questions 13, 14, 18, 20, 24]
- Interpersonal Distress – Intended to evaluate the burden that diabetes has on their interpersonal relationships [Questions 15, 21, 25]

For each scale (total and four subscales), if the mean item score (defined as the sum of all items in the scale divided by the total number of items in the scale) was greater than or equal to three, then there was at least a moderate level of distress and was indicative of needing clinical attention. [Appendix B Figure 6](#) provides the percentage of people with diabetes who had at least a moderate level of distress due to their diabetes. Due to sample size limitations, only the percentages at the state level are presented.

Appendix B Figure 6. Percentage with at Least Moderate Distress Because of Diabetes

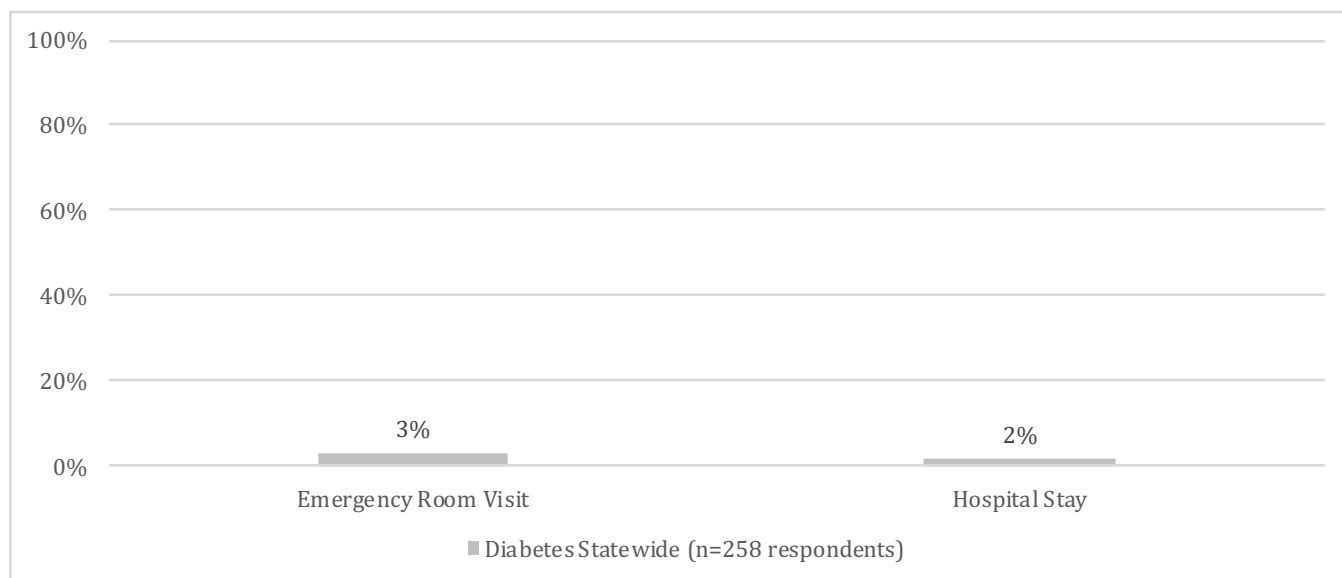


Impact of Diabetes on the Healthcare System

The survey included two questions designed to evaluate the impact of diabetes on the use of hospital-based health care services. Respondents with diabetes were asked a) during the last 12 months, have you had a visit to the hospital emergency room because of your diabetes and b) during the last 12 months, were you admitted to the hospital overnight or longer because of your diabetes. [Appendix B Figure 7](#) shows the percentage of people with diabetes statewide who used hospital-based healthcare services because of their diabetes.

22 Polonski, W.H., Fisher, L., Earles, J., Dudley, R.J., Lees, J., Mullan, J.T. & Jackson, R.A. (2005). Assessing psychological stress in diabetes. *Diabetes Care*. 28, 626 – 631.

Appendix B Figure 7. Use of Hospital-Based Services Because of Diabetes

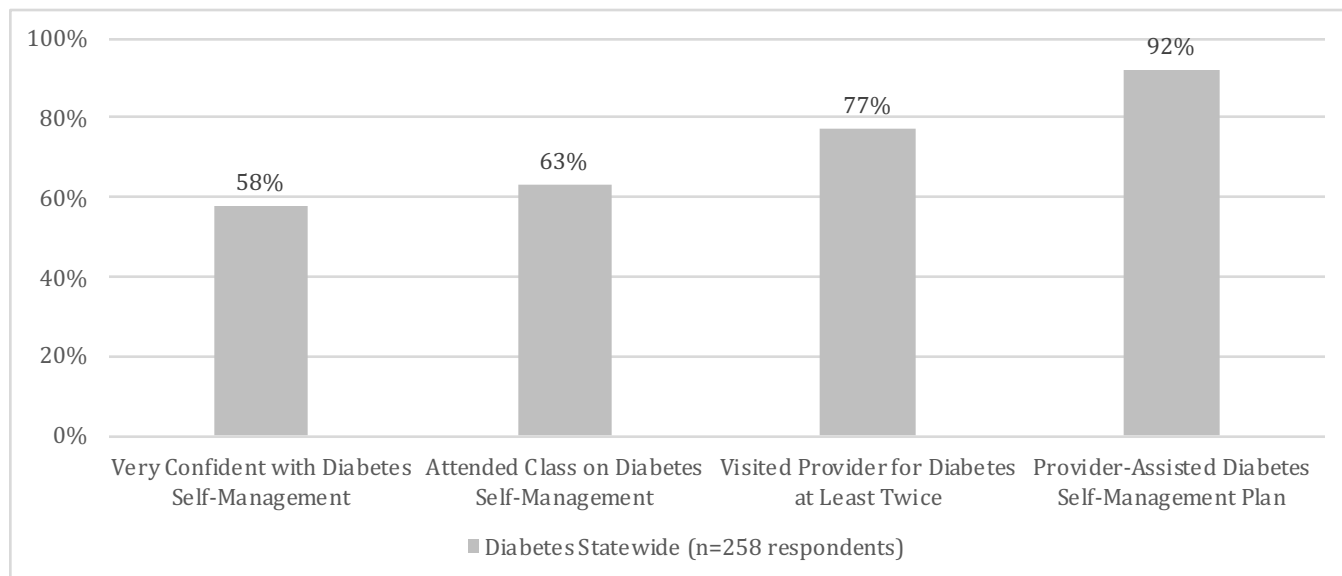


Diabetes Self-Management and Support

A goal for better health and wellness for people with diabetes is to encourage and support self-management and control. To evaluate experiences with diabetes self-management and support, the survey included four items:

- 1) Self-Management Confidence - [Question DB8.] “How confident are you that you can control and manage your diabetes?” [Appendix B Figure 8](#) shows the percentage of people with diabetes who are *very confident* they can manage their diabetes.
- 2) Diabetes Management Education – [Question DB7.] “Have you ever taken a course or class in how to manage your diabetes yourself?” [Appendix B Figure 8](#) shows the percentage who have taken a class in diabetes self-management.
- 3) Recommended Visits to Health Care Provider – [Question DB3.] “About how many times in the last 12 months have you seen a doctor, nurse, or other health professional for your diabetes?” [Appendix B Figure 8](#) shows the percentage of people with diabetes who visited their health professional at least 2 times in the last 12 months, as recommended by the American Diabetes Association.
- 4) Developed Self-Care Plan with Health Care Provider – [Question DB6.] “Have your doctors or other health care professionals worked with you to develop a plan so that you know how to take care of your diabetes?” [Appendix B Figure 8](#) shows the percentage who have worked with a health care provider to develop a self-management plan.

Appendix B Figure 8. Diabetes Self-Management and Support



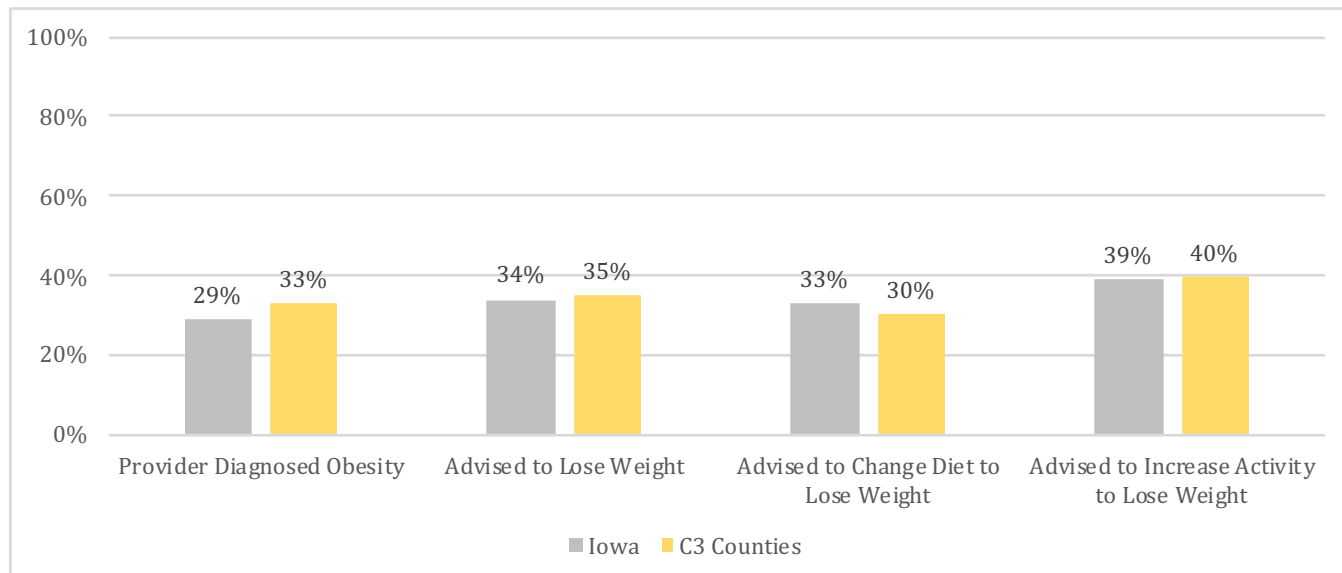
Obesity

The survey included several items to assess issues related to being overweight and/or obese. The first question asked respondents to self-rate themselves compared to others of similar age and height and report if they thought they weighed *the right amount* (normal weight), *too much* (overweight), or *too little* (underweight). As noted previously, around a little over one half (54%) considered themselves to be overweight with 41% considering themselves at normal weight and 5% as underweight. For those who self-reported as normal weight or overweight, we asked the following questions:

- 1) Have you ever been told by a health professional that you are obese?
- 2) In the last 12 months, were you ever advised by a doctor or other health professional to lose weight?
- 3) In the last 12 months, did a doctor or health professional ever recommend that you change your diet, meaning what you eat, to help you lose weight?
- 4) In the last 12 months, did a doctor or health professional ever recommend that you increase your level of physical activity to help you to lose weight?

[Appendix B Figure 9](#) shows the obesity diagnoses and health care professional advice given to Iowans who consider themselves overweight (statewide and for those in C3 counties in particular).

Appendix B Figure 9. Weight Recommendations by Health Care Providers to Overweight Individuals



Nutrition and Food Security

Access to good nutrition and maintaining a healthy diet are keys to health especially for those who are overweight and/or have diabetes. There were several questions in the survey to address nutrition and food security that can be broadly organized into three areas – 1) Current Status of Healthy Eating in Iowa and Readiness to Change, 2) Potential Barriers to Access (Affordability of Food), 3) Potential Barriers to Access (Availability of Food).

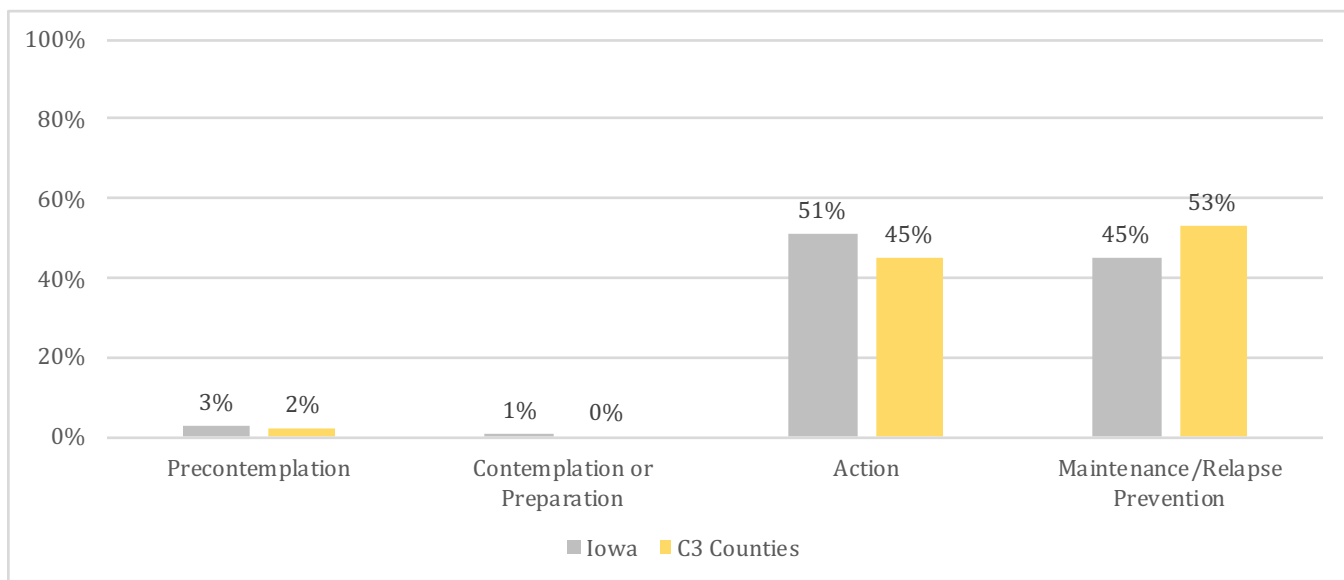
Stage of Behavior Change - Eating a Healthy Diet

The first series of questions were asked to evaluate the status of Iowans with regard to their consumption of a healthy diet (defined as one that is low in fat, low to moderate in salt, contains whole grains, and five or more servings of fruit and vegetables per day). In particular, based on the Stages of Change model of behavior change^{23,24} we assessed respondents' status regarding their dietary habits by scoring them on a five-point scale of behavior change:

- 1 = Precontemplation (Not considering a change)
- 2 = Contemplation (Thinking about the benefits and barriers to change)
- 3 = Preparation (Preparing to make a change)
- 4 = Action (Actively making the change)
- 5 = Maintenance and Relapse Prevention (Sustaining the change over time)

The gold standard for behavior change is for individuals to be in the action or maintenance/relapse prevention stages. [Appendix B Figure 10](#) shows what stage Iowans are in with regard to changing to eating a healthy diet.

Appendix B Figure 10. Stages of Change – Healthy Diet



Barriers to Eating a Healthy Diet – Affordable Food/Economic Insecurity

The survey included five questions related to food insecurity, specifically being able to afford the cost of food. They included:

- 1) In the last 12 months, how often would you say that the food you bought just didn't last and you didn't have money to get more? [Never, Sometimes, or Often]
- 2) In the last 12 months, how often would you say that you couldn't afford to eat balanced meals? [Never, Sometimes, or Often]
- 3) In the last 12 months, how often would you say that you or other adults in your household cut the size of your meals or skipped meals because there wasn't enough money for food? [Never, Sometimes, or Often]
- 4) In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money to buy food? [Yes or No]

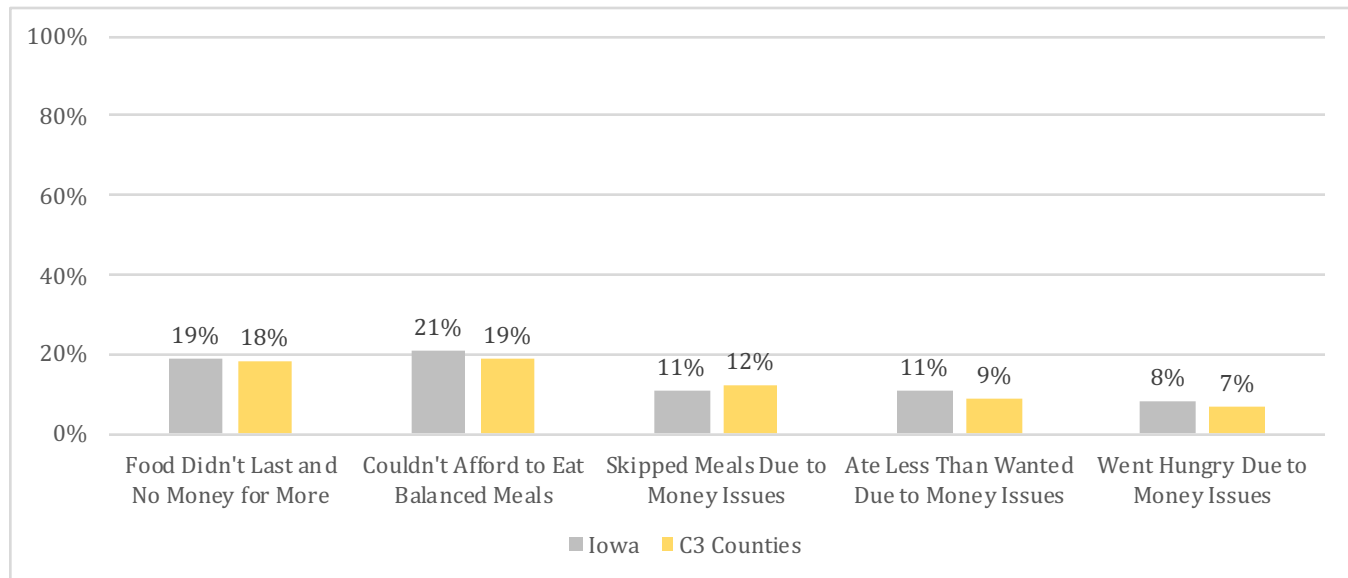
23 Prochaska JO, Velicer WF, Rossi JS, Goldstein MG, Marcus BH, et al. Stages of Change and Decisional Balance for 12 Problem Behaviors. *Health Psychology*. 1994;13(1):39-46.

24 Zimmerman GL, Olsen CG, Bosworth MF. A 'Stages of Change' Approach to Helping Patients Change Behavior. *Am Fam Physician*. 2000;61(5):1409-1416.

- 5) In the last 12 months, were you ever hungry but didn't eat because there wasn't enough money for food? [Yes or No]

Appendix B Figure 11 shows the percentage of Iowans who experience these types of economic food insecurities.

Appendix B Figure 11. Economic Food Insecurity



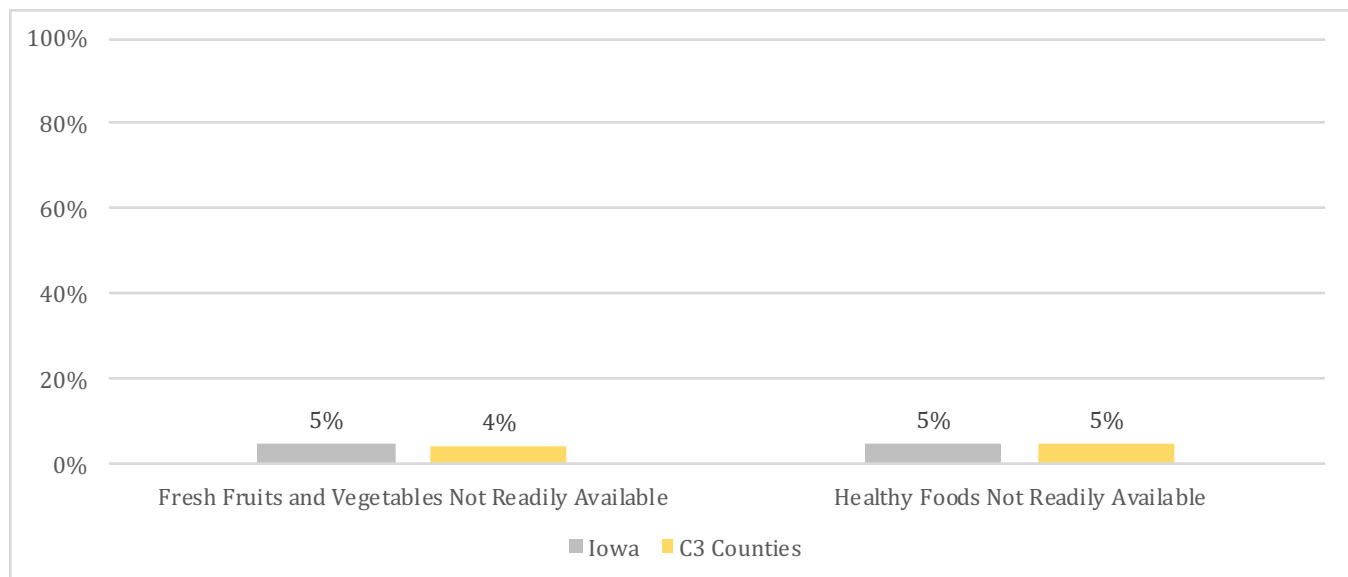
Barriers to Eating a Healthy Diet – Availability of Food Choices

Two questions on the survey were used to assess the availability of food within their community:

- 1) In my community, fresh fruits and vegetables are readily available for purchase. [Strongly disagree, Disagree, Agree, or Strongly Agree]
- 2) In my community, healthy foods are readily available for purchase. [Strongly disagree, Disagree, Agree, or Strongly Agree]

Appendix B Figure 12 shows the percentage of Iowans who experience limitations in food availability in their community.

Appendix B Figure 12. Availability of Food in the Community



Physical Activity

Along with eating a healthy diet, physical activity is also important for health and wellness and increased physical activity is often recommended for those with diabetes and/or weight issues. There were several questions in the survey to address physical activity that can be broadly organized into three areas – 1) Current Status of Physical Activity Levels, 2) Stage of Behavior Change specific to physical activity, and 3) Potential Barriers to Physical Activity (specific to walking and biking).

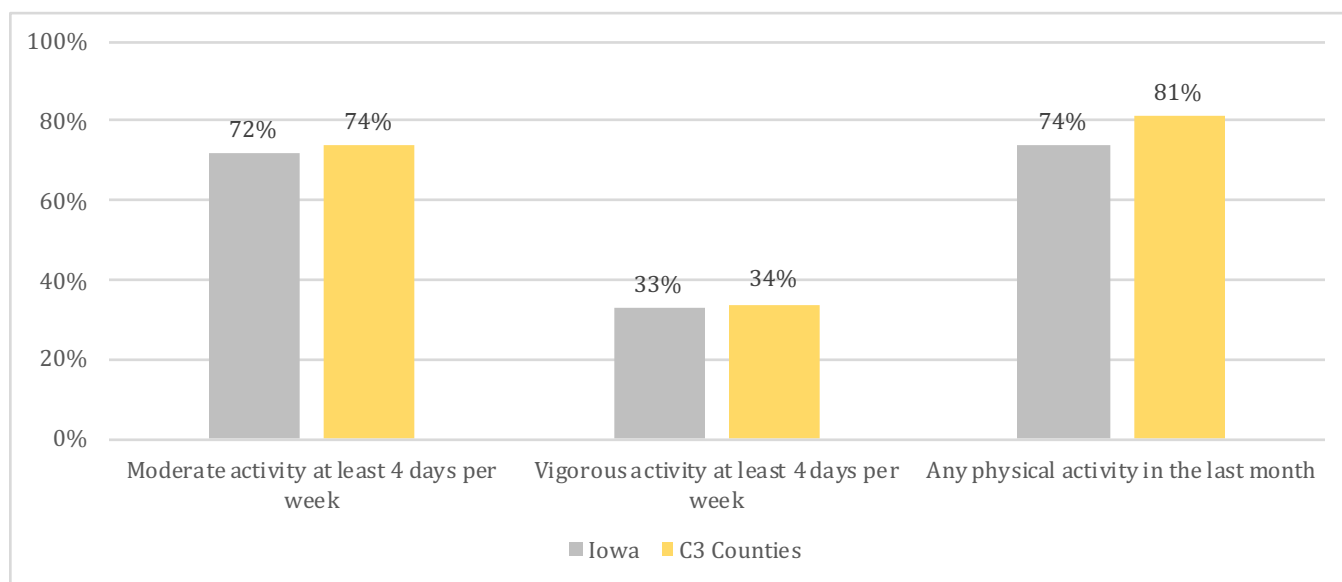
Physical Activity Levels

The survey included three questions specific to understanding how much Iowans are exercising. They were:

- 1) How many days per week do you do MODERATE activities for at least 10 minutes at a time, such as brisk walking, vacuuming, gardening, or anything else that causes some increase in your breathing or heart rate?
- 2) How many days per week do you do VIGOROUS activities for at least 10 minutes at a time, such as running, aerobics, heavy yard work, or anything else that causes large increases in your breathing or heart rate?
- 3) During the last month, other than during a regular job, did you participate in ANY physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise? [Yes or No]

[Appendix B Figure 13](#) shows the levels of physical activity engaged in by Iowans.

Appendix B Figure 13. Self-Reported Physical Activity



Stages of Behavior Change – Increasing Physical Activity

As with diet change, we evaluated the status of Iowans with regard to their physical activity (defined as exercises such as running, brisk walking, or swimming, and other activities such as golf, gardening, or housekeeping) based on the Stages of Change model of behavior change.^{25,26} We assessed respondents' status regarding their physical activity by scoring them on a five-point scale of behavior change:

- 1 = Precontemplation (Not considering a change)
- 2 = Contemplation (Thinking about the benefits and barriers to change)
- 3 = Preparation (Preparing to make a change)
- 4 = Action (Actively making the change)
- 5 = Maintenance and Relapse Prevention (Sustaining the change over time)

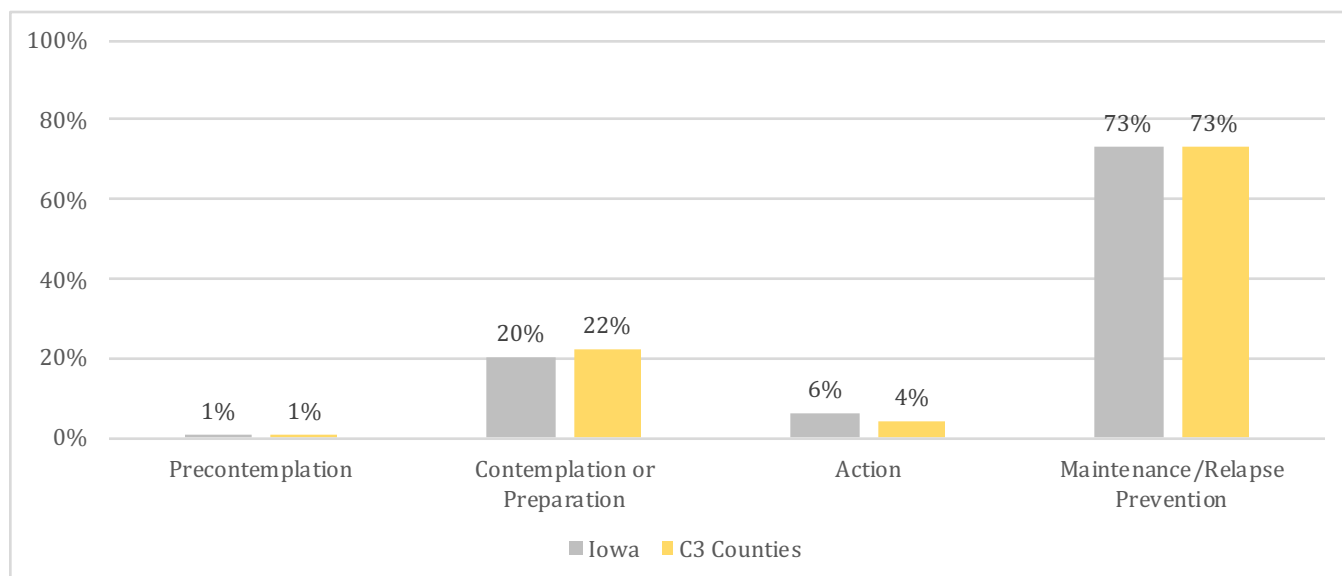
The gold standard for behavior change is for individuals to be in the action or maintenance/relapse prevention stages.

[Appendix B Figure 14](#) shows what stage Iowans are in with regard to engaging in physical activity.

25 Prochaska JO, Velicer WF, Rossi JS, Goldstein MG, Marcus BH, et al. Stages of Change and Decisional Balance for 12 Problem Behaviors. *Health Psychology*. 1994;13(1):39-46.

26 Zimmerman GL, Olsen CG, Bosworth MF. A 'Stages of Change' Approach to Helping Patients Change Behavior. *Am Fam Physician*. 2000;61(5):1409-1416.

Appendix B Figure 14. Stages of Change – Physical Activity



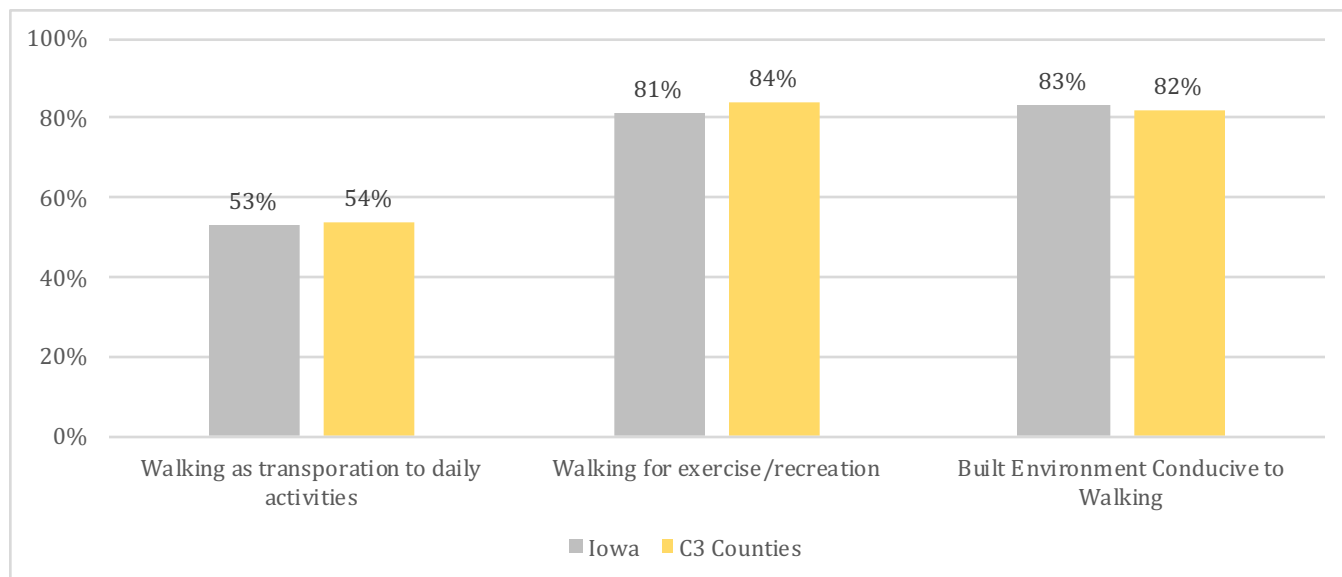
Potential Barriers to Increased Physical Activity (Walking and Biking)

In the survey, we focus on two particular ways to increase physical activity, namely through the promotion of walking and biking not only for targeted exercise and recreation but for transportation to daily activities as a way to increase physical activity levels. The following questions were asked about walking:

- 1) Does your community have adequate sidewalks and protected crosswalks or trails that could be used to walk to the grocery store, bank, or other public locations? [Built environment accessibility]
- 2) In the last 12 months, have you walked to stores, businesses or other public locations? [Walking for transportation]
- 3) In the last 12 months, have you walked for exercise or recreational purposes? [Walking for exercise/recreation]

Appendix B Figure 15 shows the percentage of Iowans who walk for physical activity and a potential barrier to walking as transportation to daily activities.

Appendix B Figure 15. Walking to Increase Physical Activity



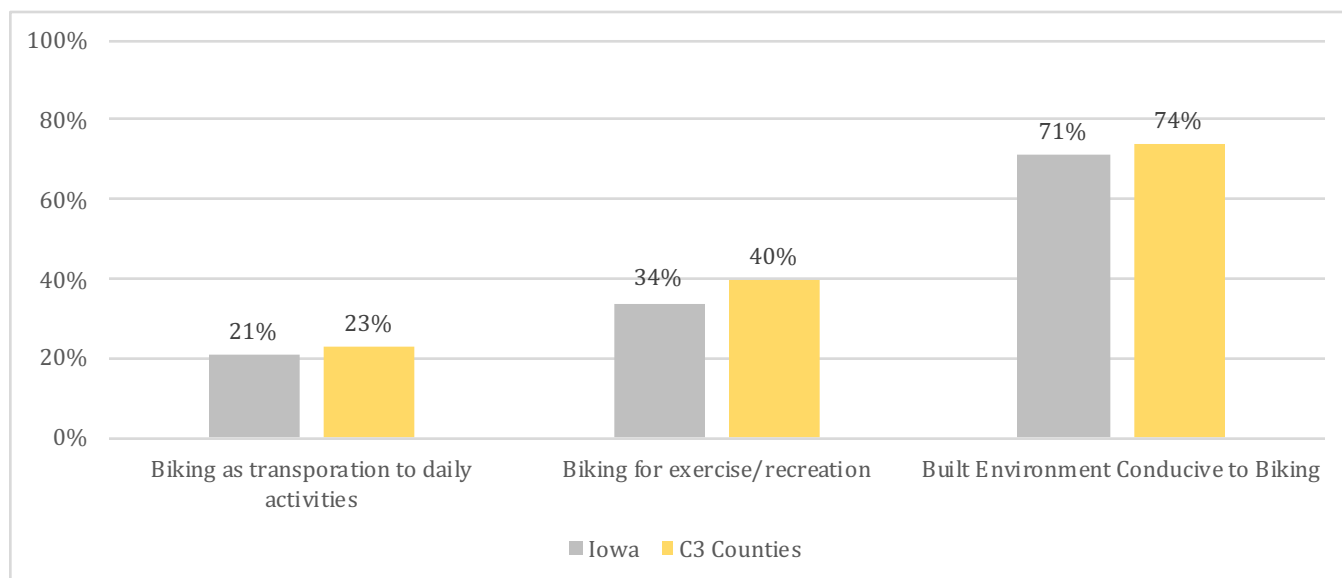
The survey included the following questions about biking:

- 1) Does your community have on-street bikeways or trails that could be used to bike to the grocery store, bank, or other public locations? [Built environment accessibility]

- 2) In the last 12 months, have you biked to stores, businesses or other public locations? [Walking for transportation]
- 3) In the last 12 months, have you biked for exercise or recreational purposes? [Walking for exercise/recreation]

[Appendix B Figure 16](#) shows the percentage of Iowans who bike for physical activity and a potential barrier to biking as transportation to daily activities.

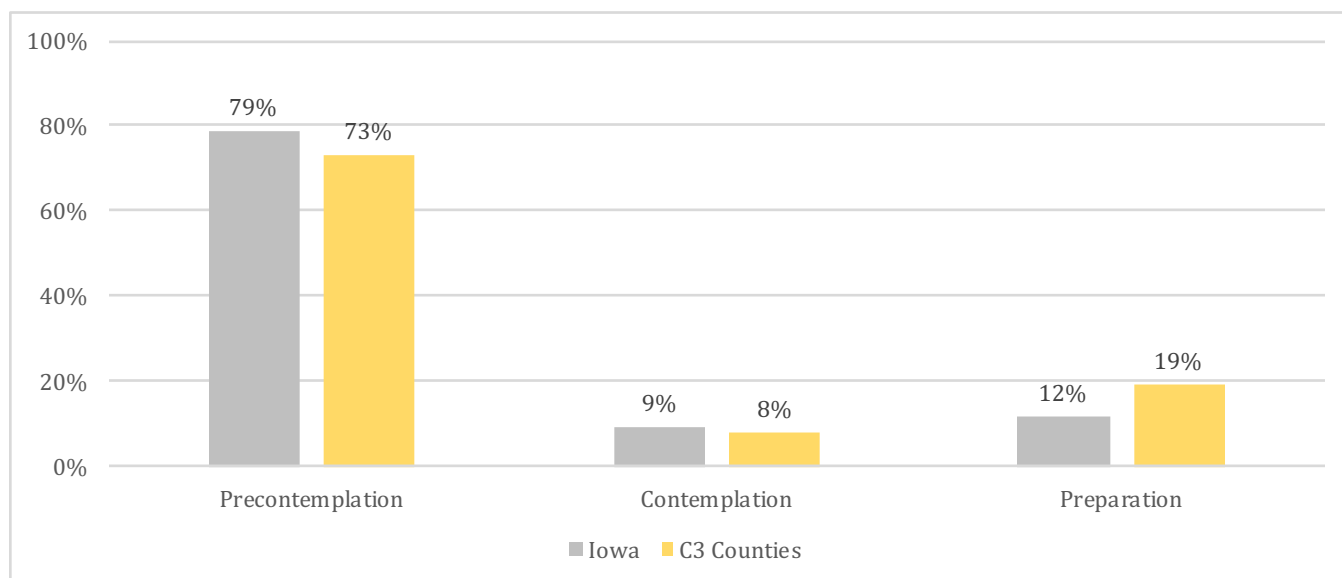
Appendix B Figure 16. Biking to Increase Physical Activity



Tobacco Cessation

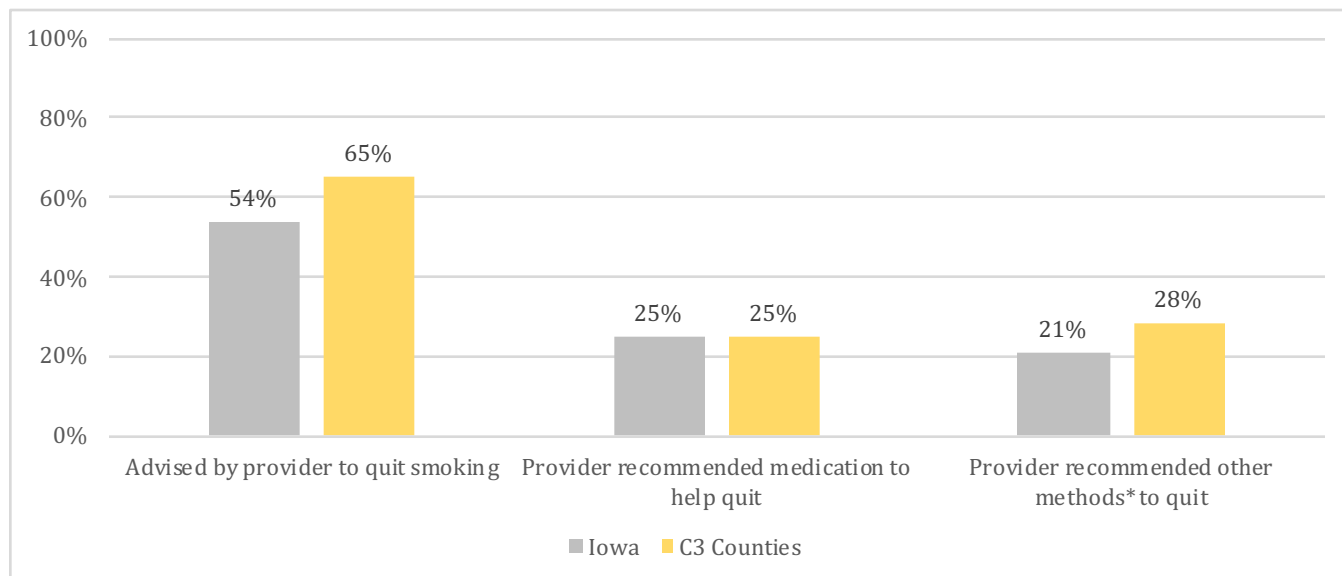
Around 23% of those surveyed reported smoking cigarettes or using tobacco at least some days (17% every day; 6% some days). For those who reported any smoking, the survey included several questions to assess the stages of change for quitting (readiness to quit) and three questions to assess how often health care providers encouraged tobacco cessation strategies. For the 471 respondents who were smokers, [Appendix B Figure 17](#) shows the stages of behavior change for quitting smoking (Precontemplation, Contemplation, Preparation) and [Appendix B Figure 18](#) shows the percentage who received cessation advice and/or treatment suggestions from their healthcare provider.

Appendix B Figure 17. Stages of Change – Tobacco Cessation



[Appendix B Figure 18](#) shows the strategies health care providers offered as methods for quitting.

Appendix B Figure 18. Healthcare Provider Advice for Tobacco Cessation



* Other non-medication methods suggested in the question included telephone hotline, individual or group counseling, or a cessation program.

Utilization of and Access to Health Care Services

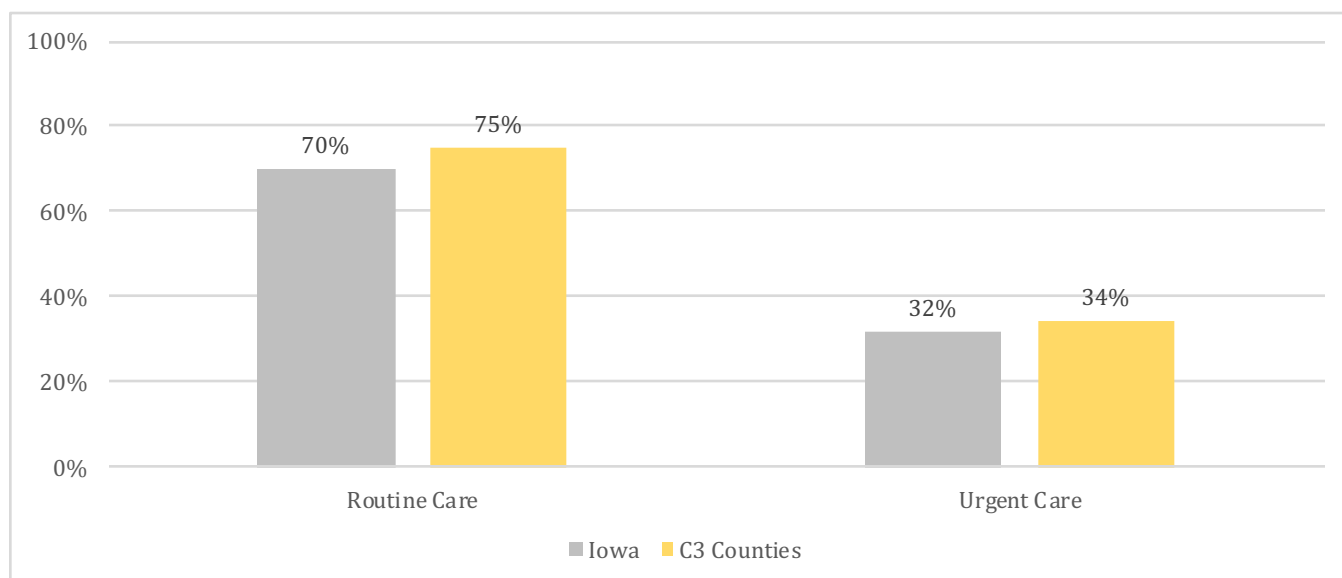
The surveys included questions about members' use of and access to a variety of health care services in the past twelve months including: primary care, specialty care, and hospital-based services.

Use of Primary Care Services

Primary care related services included care at a doctor's office or clinic for a) routine care such as a wellness visit or preventive care (i.e., yearly physical or immunizations) or b) urgent care for an illness, injury, or condition that needed care right away.

Appendix B Figure 19 provides the percentage of Iowans who used primary care (routine and urgent) services.

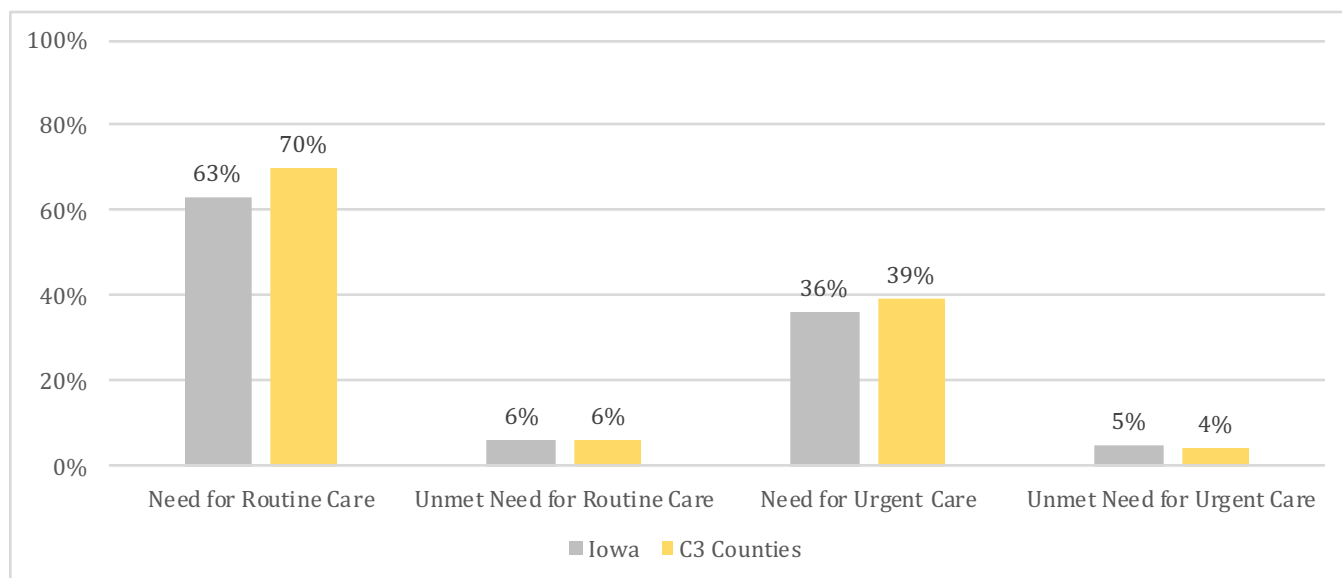
Appendix B Figure 19. Primary Care-Related Service Use



Need and Unmet Need for Primary Care Services

In the survey, participants were asked if they had a need for routine or urgent care in the past twelve months and if there was any time when they needed care but could not get it for any reason (unmet need). Appendix B Figure 20 shows the percentage of need and unmet need for routine and urgent care.

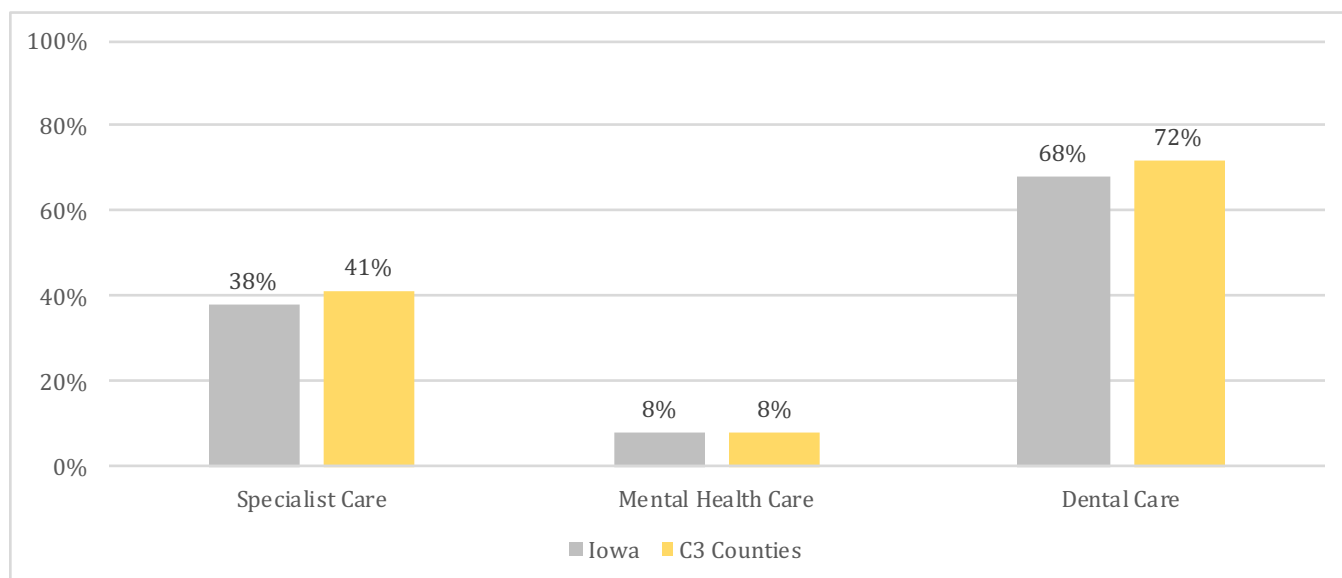
Appendix B Figure 20. Need and Unmet Need for Primary Care Services



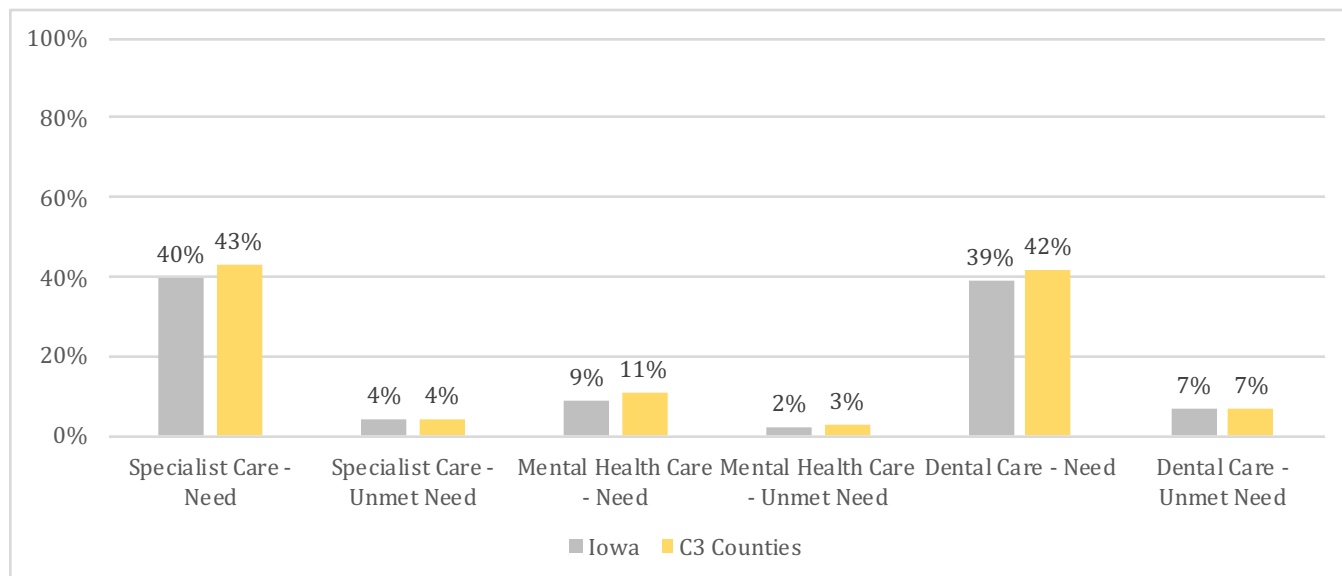
Use of Specialty Care

Specialty care in the twelve months prior to the survey included any appointments with a specialist (defined as doctors like surgeons, heart doctors, allergy doctors, skin doctors, and others who specialize in one area of health care), treatment or counseling for a mental or emotional health problem, and receipt of dental care (dental check-up within the last year). [Appendix B Figure 21](#) shows the use of these types of specialty care services. [Appendix B Figure 22](#) shows the need and unmet need for these specialty care services.

Appendix B Figure 21. Specialty Care-Related Services



Appendix B Figure 22. Need and Unmet Need for Specialty Care



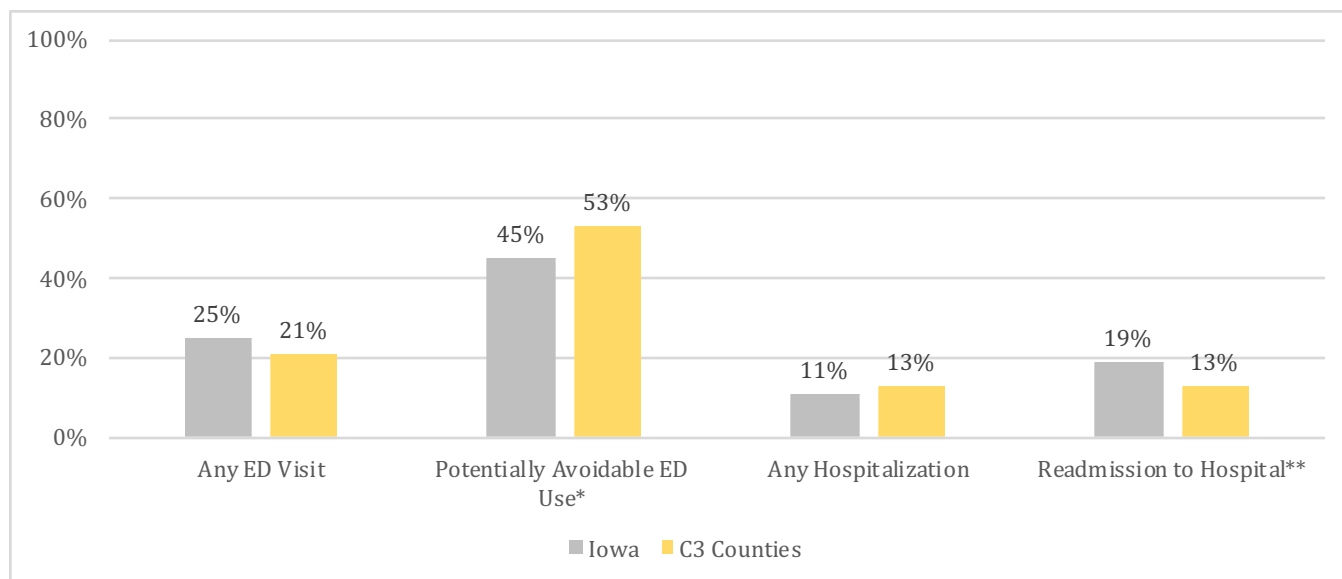
Hospital-Based Services: Emergency Department Use and Hospitalizations

The survey included questions to assess the use of hospital emergency departments (EDs) for care within the past twelve months and “potentially avoidable” ED visits. For those with at least one ED visit, a “potentially avoidable” ED visit was defined as a response that the care from their most recent ED visit could have been provided in a doctor’s office or clinic.

Two questions were asked about hospital stays. The first asked how many nights the respondent spent in the hospital because of a health problem in the twelve months prior to the survey. The second was used to get a sense of potentially “avoidable” readmissions to the hospital and asked respondents who had reported a hospitalization if they ever had to go back into the hospital within 30 days of being allowed to go home because they were still sick or had a problem. [Appendix B Figure 23](#) provides the ED and hospitalization experiences of these Iowans.

The top 3 reasons for going to an ED instead of a doctor’s office for the 200 respondents with at least one “potentially avoidable” ED visit included: (1) The doctor’s office/clinic was not open when care was needed (59%), (2) The doctor’s office/clinic was open, but could not get an appointment (13%), and (3) The health problem was too serious for the doctor’s office or clinic (10%).

Appendix B Figure 23. Emergency Department Use and Hospitalizations



* The percentage shown is the number of people with a potentially avoidable ED visit out of all people who had at least one ED visit (n=516 total respondents; n=94 respondents from C3 counties)

** The percentage shown is the number of people with a hospital readmission out of all people who had at least one hospitalization (n=272 total respondents; n=58 respondents from C3 counties)

Access to Health Care: Transportation Issues

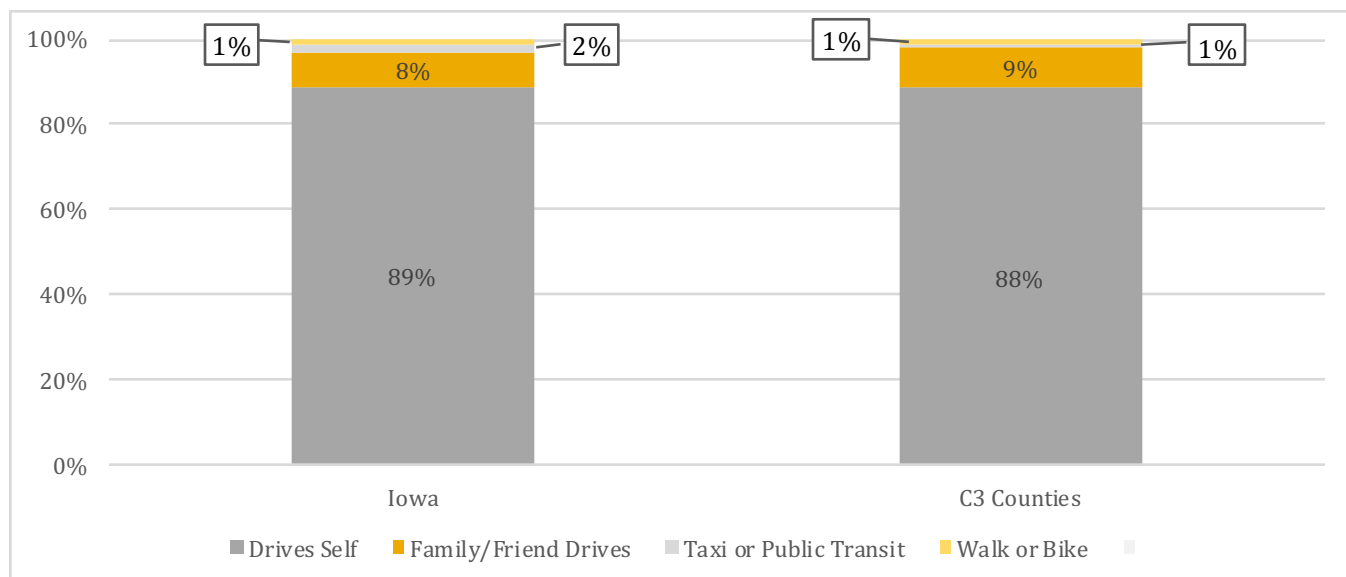
In 2016, access to transportation ranked 7th as a priority area in the CHNAs with 49 counties identifying transportation issues as a community health need. Perhaps because of this fact, in the SIM Operational Plan, one of the social determinant of health interest areas is transportation. To evaluate healthcare related transportation issues, the survey covered the following topics:

- The enrollees' mode of traveling for health care
- The number of vehicles available to the household for transportation purposes
- Frequency of needing assistance getting to and from health care visits in the last 12 months
- Unmet need for transportation to or from health care visits in the last 12 months
- Concern about costs associated with NEMT in the last 6 months

Mode of Transportation to Health Care Visits

The vast majority (93%) of Iowans surveyed are licensed drivers. In the surveys, members were asked: "When you need to get health care, what is the type of transportation you use most often to get to your visit?" [Appendix B Figure 24](#) provides a summary of the responses to this question.

Appendix B Figure 24. Types of Transportation to Health Care Visits



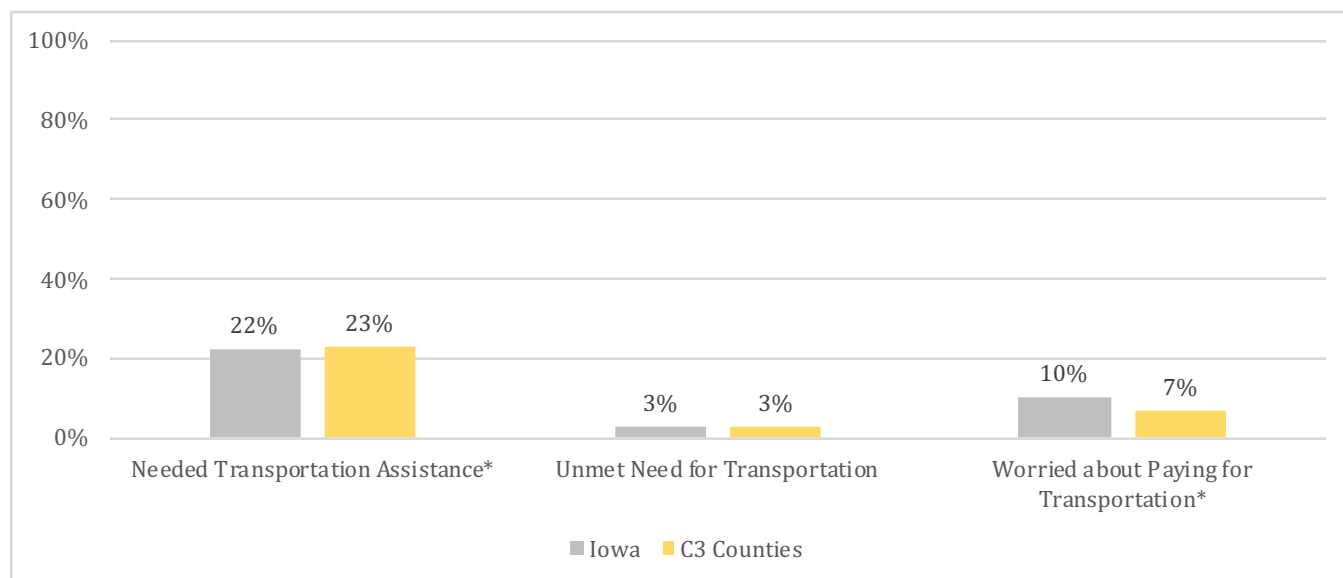
Transportation as a Potential Barrier to Health Care

Three questions were specific to transportation assistance issues:

- 1) In the last 12 months, how often did you need assistance from other sources (such as friends, family, public transportation, etc.) to get to your health care visit?
- 2) In the last 12 months, was there any time when you needed transportation to or from a health care visit but could not get it for any reason?
- 3) In the last 12 months, how much, if at all, have you worried about your ability to pay for the cost of transportation to or from a health care visit?

[Appendix B Figure 25](#) summarizes the responses to these questions.

Appendix B Figure 25. Healthcare Related Transportation Issues Experienced by Iowans



* Respondents reported need or worry at least sometime in the past 12 months.

Addendum 1 – Survey Instrument

Section 1. Health Services Need/Utilization/Unmet Need

The first set of questions will be about your need for and use of health care in the past year.

AN1. In the last 12 months, was there any time when you or a doctor thought you needed routine wellness or preventive care, such as a yearly physical or immunizations, at a doctor's office or clinic?

1. Yes

2. No

7. DON'T KNOW

9. REFUSED

AN2. In the last 12 months, did you get any routine wellness or preventive care from a doctor's office or clinic?

1. Yes

2. No

7. DON'T KNOW

9. REFUSED

AN3. In the last 12 months, was there any time when you needed routine wellness or preventive care but could not get it for any reason?

1. Yes

2. No

7. DON'T KNOW

9. REFUSED

AN4. In the last 12 months, did you have an illness, injury, or condition that needed care right away in a doctor's office or clinic?

1. Yes

2. No

[SKIP TO AN7]

7. DON'T KNOW

[SKIP TO AN7]

9. REFUSED

[SKIP TO AN7]

AN5. Did you get that care at a doctor's office or clinic?

1. Yes

2. No

7. DON'T KNOW

9. REFUSED

AN6. In the last 12 months, was there any time when you needed care for an illness, injury, or other condition right away but could not get it for any reason?

1. Yes

2. No

7. DON'T KNOW

9. REFUSED

AN7. During the last 12 months, how many times did you go to a hospital emergency room to get care for yourself?

- 1. 1 time
- 2. 2 to 4 times
- 3. 5 to 9 times
- 4. 10 or more times

8. NONE [SKIP TO AN11]

7. DON'T KNOW [SKIP TO AN11]

9. REFUSED [SKIP TO AN11]

AN8. Thinking about your most recent ER visit, did a doctor, nurse, or other health care provider tell you to go to the ER for this care?

- 1. Yes
- 2. No
- 7. DON'T KNOW**
- 9. REFUSED**

AN9. Do you think the care you received at your most recent visit to the ER could have been provided by a doctor's office or clinic?

- 1. Yes
- 2. No [SKIP TO AN11]
- 7. DON'T KNOW** [SKIP TO AN11]
- 9. REFUSED** [SKIP TO AN11]

AN10. What was the main reason you did not go to a doctor's office or clinic for this care?

[DO NOT READ, SELECT ONLY ONE]

- 11. Could not afford the care or have no insurance
- 12. Insurance/HMO coverage was inadequate
- 13. I did not have a doctor or clinic to go to
- 14. Distance or transportation problems
- 15. My doctor's office/clinic was open, but could not get an appointment
- 16. My doctor's office/clinic was not open when I needed care
- 17. Could not get off work
- 18. Doctor/Nurse sent me to the ER
- 19. My health problem was too serious for the doctor's office or clinic
- 20. OTHER [SPECIFY]
- 77. DON'T KNOW**
- 99. REFUSED**

AN11. During the last 12 months, how many nights did you spend in the hospital because of a health problem?

- 1. 1 night
- 2. 2 nights
- 3. 3 nights
- 4. 4 or more nights
- 8. NONE [SKIP TO AN13]
- 7. DON'T KNOW [SKIP TO AN13]
- 9. REFUSED [SKIP TO AN13]

AN12. In the last 12 months, did you ever have to go back into the hospital within 30 days after being allowed to go home because you were still sick or still had a problem?

- 1. Yes
- 2. No
- 7. DON'T KNOW
- 9. REFUSED

Specialists are doctors like surgeons, heart doctors, allergy doctors, skin doctors, and others who specialize in one area of health care. When you answer the next few questions about specialist care, do not include dental visits or care you got when you stayed overnight in a hospital.

AN13. In the last 12 months, was there any time when you or a doctor thought you needed care from a specialist?

- 1. Yes
- 2. No [SKIP TO AN16]
- 7. DON'T KNOW [SKIP TO AN16]
- 9. REFUSED [SKIP TO AN16]

AN14. How many specialists have you seen in the last 12 months?

- 1. 1
- 2. 2
- 3. 3
- 4. 4 or more
- 8. NONE
- 7. DON'T KNOW
- 9. REFUSED

AN15. In the last 12 months, was there any time when you needed care from a specialist but could not get it for any reason?

- 1. Yes
- 2. No
- 7. DON'T KNOW
- 9. REFUSED

AN16. In the last 12 months, did you or a health care provider believe you needed any treatment or counseling for a mental or emotional health problem?

- 1. Yes
- 2. No [SKIP TO AN19]
- 7. DON'T KNOW [SKIP TO AN19]
- 9. REFUSED [SKIP TO AN19]

AN17. In the last 12 months, did you get any treatment or counseling for a mental or emotional health problem?

- 1. Yes
- 2. No
- 7. DON'T KNOW
- 9. REFUSED

AN18. In the last 12 months, was there any time when you needed treatment or counseling for a mental or emotional health problem but could not get it for any reason?

- 1. Yes
- 2. No
- 7. DON'T KNOW
- 9. REFUSED

The next few questions are about your dental care.

AN19. When was your last dental check-up?

- 1. Within the last year
- 2. 1 to 2 years ago
- 3. More than 2 years ago
- 4. I've never been to a dentist
- 7. DON'T KNOW
- 9. REFUSED

AN20. In the last 12 months, was there any time when you or a dentist thought you needed dental care for any reason?

- 1. Yes
- 2. No [SKIP TO HS1]
- 7. DON'T KNOW [SKIP TO HS1]
- 9. REFUSED [SKIP TO HS1]

AN21. What kinds of dental care did you or a dentist think you needed?

[DO NOT READ. SELECT ALL THAT APPLY]

- 11. Tooth pulled (extraction)
- 12. Filling(s)
- 13. Root canal or other emergency dental care
- 14. Checkup and cleaning
- 15. Full dentures that replace all upper and/or lower teeth
- 16. Tooth replacements, such as bridges or partial dentures
- 17. Crowns/Caps
- 18. Braces
- 19. OTHER [SPECIFY]

77. DON'T KNOW

99. REFUSED

AN22. In the last 12 months, was there any time when you needed dental care but could not get it for any reason?

- 1. Yes
- 2. No
- 7. DON'T KNOW**
- 9. REFUSED**

Section 2. Health Status

The next set of questions ask about your health.

HS1. In general, how would you rate your overall physical health now?

Would you say ...

- 1. Excellent,
- 2. Very good,
- 3. Good,
- 4. Fair, or
- 5. Poor
- 7. DON'T KNOW**
- 9. REFUSED**

HS2. Have you been diagnosed with a chronic physical health condition or disease that has lasted or is expected to last for at least 12 months?

- 1. Yes
- 2. No
- 7. DON'T KNOW**
- 9. REFUSED**

HS3. In general, how would you rate your overall mental or emotional health now? Would you say ...

- 1. Excellent,
- 2. Very good,
- 3. Good,
- 4. Fair, or
- 5. Poor?

7. DON'T KNOW

9. REFUSED

HS4. Have you been diagnosed with a chronic mental or emotional health condition that has lasted or is expected to last for at least 12 months?

- 1. Yes
- 2. No

7. DON'T KNOW

9. REFUSED

HS5. Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?

___ ___ NUMBER OF DAYS

88. NONE

77. DON'T KNOW

99. REFUSED

HS6. Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?

___ ___ NUMBER OF DAYS

88. NONE

77. DON'T KNOW

99. REFUSED

[IF HS5 ANS HS6 = 88, SKIP TO HS8]

HS7. During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?

___ ___ NUMBER OF DAYS

88. NONE

77. DON'T KNOW

99. REFUSED

The next questions are about physical, mental, or emotional problems or limitations you may have in your daily life.

HS8. Are you LIMITED in any way in any activities because of any impairment or health problem?

- 1. Yes
- 2. No [SKIP TO OB1]
- 7. DON'T KNOW [SKIP TO OB1]
- 9. REFUSED [SKIP TO OB1]

HS9. What is the MAJOR impairment or health problem that limits your activities?

[DO NOT READ. SELECT ONLY ONE]

- 11. Arthritis/rheumatism
- 12. Back or neck problem
- 13. Fractures, bone/joint injury
- 14. Walking problem
- 15. Lung/breathing problem
- 16. Hearing problem
- 17. Eye/vision problem
- 18. Heart problem
- 19. Stroke problem
- 20. Hypertension/high blood pressure
- 21. Diabetes
- 22. Obesity
- 23. Cancer
- 24. Depression/anxiety/emotional problem
- 25. Other impairment/problem
- 77. DON'T KNOW
- 99. REFUSED

HS10. For HOW LONG have your activities been limited because of your major impairment or health problem?

- 1 ____ ____ Days
- 2 ____ ____ Weeks
- 3 ____ ____ Months
- 4 ____ ____ Years
- 777. DON'T KNOW
- 999. REFUSED

HS11. Because of any impairment or health problem, do you need the help of other persons with your PERSONAL CARE needs, such as eating, bathing, dressing, or getting around the house?

- 1. Yes
- 2. No
- 7. DON'T KNOW
- 9. REFUSED

HS12. Because of any impairment or health problem, do you need the help of other persons in handling your ROUTINE needs, such as everyday household chores, doing necessary business, shopping, or getting around for other purposes?

- 1. Yes
- 2. No
- 7. **DON'T KNOW**
- 9. **REFUSED**

Section 3. Obesity & Diabetes

The next questions are about some other specific health problems.

OB1. Compared to other people of your age and height, do you think you weigh...

- 1. the right amount,
- 2. Too much, or
- 3. Too little? **[SKIP TO DB1]**
- 7. **DON'T KNOW** **[SKIP TO DB1]**
- 9. **REFUSED** **[SKIP TO DB1]**

OB2. In the last 12 months, were you ever advised by a doctor or other health professional to lose weight?

- 1. Yes
- 2. No
- 7. **DON'T KNOW**
- 9. **REFUSED**

OB3. Have you ever been told by a health professional that you are obese?

- 1. Yes
- 2. No
- 7. **DON'T KNOW**
- 9. **REFUSED**

OB4. In the last 12 months, did a doctor or health professional ever recommend that you change your diet, meaning what you eat, to help you to lose weight?

- 1. Yes
- 2. No
- 7. **DON'T KNOW**
- 9. **REFUSED**

OB5. In the last 12 months, did a doctor or health professional ever recommend that you increase your level of physical activity to help you to lose weight?

- 1. Yes
- 2. No
- 7. **DON'T KNOW**
- 9. **REFUSED**

DB1. Since you have been an adult, has a doctor, nurse, or other health care professional EVER told you that you have diabetes?

[IF “YES” AND RESPONDENT IS FEMALE, ASK “WAS THIS ONLY WHEN YOU WERE PREGNANT?”]

[IF RESPONDENT SAYS PRE-DIABETES OR BORDERLINE DIABETES, USE RESPONSE CODE 4]

- 1. Yes
- 2. Yes, female told only during pregnancy [SKIP TO TB1]
- 3. No [SKIP TO TB1]
- 4. No, pre-diabetes or borderline [SKIP TO TB1]
- 8. Yes, but no longer have diabetes [SKIP TO TB1]
- 7. DON'T KNOW [SKIP TO TB1]
- 9. REFUSED [SKIP TO TB1]

DB2. Were you told that you had Type 1 or Type 2 diabetes?

[IF NEEDED, SAY: “TYPE 1 DIABETES RESULTS FROM THE BODY’S FAILURE TO PRODUCE INSULIN AND IS USUALLY DIAGNOSED IN CHILDREN AND YOUNG ADULTS. TYPE 2 DIABETES RESULTS FROM INSULIN RESISTANCE AND IS THE MOST COMMON FORM OF DIABETES.”]

- 1. Type 1
- 2. Type 2
- 3. Another type
- 7. DON'T KNOW
- 9. REFUSED [SKIP TO TB1]

DB3. About how many times in the last 12 months have you seen a doctor, nurse, or other health professional for your diabetes?

_____ NUMBER OF TIMES {0-76}

- 76. 76 OR MORE
- 88. NONE
- 77. DON'T KNOW
- 99. REFUSED

DB4. During the last 12 months, have you had to visit a hospital emergency room because of your diabetes?

- 1. Yes
- 2. No
- 7. DON'T KNOW
- 9. REFUSED

DB5. During the last 12 months, were you admitted to the hospital overnight or longer for your diabetes?

1. Yes

2. No

7. DON'T KNOW

9. REFUSED

DB6. Have your doctors or other health care professionals worked with you to develop a plan so that you know how to take care of your diabetes?

1. Yes

2. No

7. DON'T KNOW

9. REFUSED

DB7. Have you ever taken a course or class in how to manage your diabetes yourself?

1. Yes

2. No

7. DON'T KNOW

9. REFUSED

DB8. How confident are you that you can control and manage your diabetes? Would you say you are...

1. Very confident,

2. Somewhat confident,

3. Not too confident, or

4. Not at all confident?

7. DON'T KNOW

9. REFUSED

Living with diabetes can sometimes be tough. You may experience problems and hassles concerning your diabetes. The next series of questions are about potential problem areas that people with diabetes may experience.

For the following statements, consider the degree to which each statement may have been a problem for you DURING THE LAST MONTH.

DB. On a scale from 1 to 6, where 1 is "Not a problem at all" and 6 is "A very serious problem," how much of a problem is...:

9. Feeling that diabetes is taking up too much of your mental and physical energy every day.

_____ [1 – 6]

7. DON'T KNOW

9. REFUSED

10. Feeling that your doctor doesn't know enough about diabetes and diabetes care.

11. Feeling angry, scared, and/or depressed when you think about living with diabetes.

12. Feeling that your doctor doesn't give you clear enough directions on how to manage your diabetes.

13. Feeling that you are not testing your blood sugars frequently enough.

14. Feeling that you are often failing with your diabetes routine.

15. Feeling that your friends or family are not supportive enough of your self-care efforts (such as planning activities that conflict with your schedule, encouraging you to eat the "wrong" foods, etc.).

16. Feeling that diabetes controls your life.

17. Feeling that your doctor doesn't take your concerns seriously enough.

18. Not feeling confident in your day-to-day ability to manage your diabetes.

19. Feeling that you will end up with serious long-term complications from your diabetes, no matter what you do.

20. Feeling that you are not sticking closely enough to a good meal plan.

21. Feeling that friends or family don't appreciate how difficult living with diabetes can be.

22. Feeling overwhelmed by the demands of living with diabetes.

23. Feeling that you don't have a doctor who you can see regularly enough about your diabetes.

24. Not feeling motivated to keep up your diabetes self-management.

25. Feeling that friends or family don't give you the emotional support that you would like.

Section 4. Tobacco Use

The next questions are about your use of tobacco. Please consider smoking cigarettes, cigars, pipes, or using smokeless tobacco as using tobacco.

[DO NOT COUNT VAPING / E-CIGARETTES]

TB1. Do you CURRENTLY smoke cigarettes or use tobacco every day, some days, or not at all?

- 1. Every day
- 2. Some days
- 3. Not at all **[SKIP TO NP1]**
- 7. **DON'T KNOW**
- 9. **REFUSED**

TB2. Do you want to quit smoking or using tobacco for good?

- 1. Yes
- 2. No **[SKIP TO TB4]**
- 7. **DON'T KNOW**
- 9. **REFUSED**

TB3. Do you have a time frame in mind for quitting?

- 1. Yes
- 2. No **[SKIP TO TB4]**
- 7. **DON'T KNOW** **[SKIP TO TB4]**
- 9. **REFUSED** **[SKIP TO TB4]**

TB3a. Would that be...

- 1. In the next 7 days,
- 2. In the next 30 days,
- 3. In the next 6 months,
- 4. In the next year, or
- 5. More than 1 year from now?
- 7. **DON'T KNOW**
- 9. **REFUSED**

TB4. In the last 12 months, how often were you advised to quit smoking or using tobacco by a doctor or other health provider? Would you say...

- 1. Never,
- 2. Sometimes,
- 3. Usually, or
- 4. Always?
- 7. **DON'T KNOW**
- 9. **REFUSED**

TB5. In the last 12 months, how often was medication, such as nicotine gum, patch, nasal spray, inhaler, or prescription medicine, recommended or discussed by a doctor or health provider to assist you with quitting smoking or using tobacco? Would you say...

- 1. Never,
- 2. Sometimes,
- 3. Usually, or
- 4. Always?
- 7. **DON'T KNOW**
- 9. **REFUSED**

TB6. In the last 12 months, how often did your doctor or health provider discuss or provide methods and strategies other than medication such as a telephone hotline, individual or group counseling, or a cessation program to assist you with quitting smoking or using tobacco? Would you say...

- 1. Never,
- 2. Sometimes,
- 3. Usually, or
- 4. Always?
- 7. **DON'T KNOW**
- 9. **REFUSED**

Section 6. Nutrition

The next set of questions are about the food that you eat.

A healthy diet is one that is low in fat, low to moderate in salt, contains whole grains, and five or more servings of fruit and vegetables per day.

NP1. Do you CURRENTLY eat a healthy diet...

- 1. Regularly,
- 2. Once in a while, but not regularly, or [SKIP TO NP6]
- 3. Not at all? [SKIP TO NP3]
- 7. **DON'T KNOW** [SKIP TO NP6]
- 9. **REFUSED** [SKIP TO NP6]

NP2. When did you begin eating a healthy diet? Would you say...

- 1. Within the last six months, or [SKIP TO NP6]
- 2. More than six months ago? [SKIP TO NP6]
- 7. **DON'T KNOW** [SKIP TO NP6]
- 9. **REFUSED** [SKIP TO NP6]

NP3. Did you ever eat a healthy diet in the past but not now?

- 1. Yes
- 2. No
- 7. **DON'T KNOW** [SKIP TO NP6]
- 9. **REFUSED** [SKIP TO NP6]

NP4. Are you thinking about trying to eat a healthy diet?

- 1. Yes
- 2. No [SKIP TO NP6]
- 7. **DON'T KNOW** [SKIP TO NP6]
- 9. **REFUSED** [SKIP TO NP6]

NP5. In what time frame are you thinking about trying to eat a healthy diet? Would you say...

- 1. Within the next 30 days,
- 2. Within the next 6 months, or
- 3. More than 6 months from now?
- 7. **DON'T KNOW**
- 9. **REFUSED**

The next few questions are about the food eaten in your household in the last 12 months and whether you were able to afford the food you needed.

NP6. In the last 12 months, how often would you say that the food you bought just didn't last and you didn't have money to get more? Would you say...

- 1. Never,
- 2. Sometimes, or
- 3. Often
- 7. **DON'T KNOW**
- 9. **REFUSED**

NP7. In the last 12 months, how often would you say that you couldn't afford to eat balanced meals? Would you say...

- 1. Never,
- 2. Sometimes, or
- 3. Often?
- 7. **DON'T KNOW**
- 9. **REFUSED**

NP8. In the last 12 months, how often would you say that you or other adults in your household cut the size of your meals or skipped meals because there wasn't enough money for food? Would you say...

- 1. Never,
- 2. Sometimes, or
- 3. Often?
- 7. **DON'T KNOW**
- 9. **REFUSED**

NP9. In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money to buy food?

- 1. Yes
- 2. No
- 7. **DON'T KNOW**
- 9. **REFUSED**

NP10. In the last 12 months, were you ever hungry, but didn't eat because there wasn't enough money for food?

1. Yes

2. No

7. **DON'T KNOW**

9. **REFUSED**

The next few questions are about the food available in your community.

NP11. Please tell me how much you agree with the following statements.

In my community, fresh fruits and vegetables are readily available for purchase. Do you...

1. Strongly agree,

2. Agree,

3. Disagree, or

4. Strongly disagree?

7. **DON'T KNOW**

9. **REFUSED**

NP12. In my community, healthy foods are readily available for purchase. Do you...

1. Strongly agree,

2. Agree,

3. Disagree, or

4. Strongly disagree?

7. **DON'T KNOW**

9. **REFUSED**

Section 7. Physical Activity

The next set of questions are about your physical activity. Physical activity can include exercises such as running, brisk walking, or swimming, and other activities such as golf, gardening, or housekeeping.

PA1. Do you CURRENTLY engage in any physical activity?

- 1. Yes, regularly
- 2. Once in a while, but not regularly [SKIP TO PA5]
- 3. No [SKIP TO PA3]
- 7. DON'T KNOW [SKIP TO PA5]
- 9. REFUSED [SKIP TO PA5]

PA2. When did you start being physically active? Was it...

- 1. Within the last six months, or [SKIP TO PA5]
- 2. More than six months ago? [SKIP TO PA5]
- 7. DON'T KNOW [SKIP TO PA5]
- 9. REFUSED [SKIP TO PA5]

PA3. Did you ever engage in any physical activity in the past but not now?

- 1. Yes
- 2. No
- 7. DON'T KNOW
- 9. REFUSED

PA4. Do you plan on becoming physically active within the next six months?

- 1. Yes
- 2. No [SKIP TO PA8]
- 7. DON'T KNOW [SKIP TO PA8]
- 9. REFUSED [SKIP TO PA8]

PA5. How many days per week do you do MODERATE activities for at least 10 minutes at a time, such as brisk walking, vacuuming, gardening, or anything else that causes some increase in your breathing or heart rate?

____ NUMBER OF DAYS PER WEEK {1-7}

- 88. NONE
- 77. DON'T KNOW
- 99. REFUSED

PA6. How many days per week do you do VIGOROUS activities for at least 10 minutes at a time, such as running, aerobics, heavy yard work, or anything else that causes large increases in your breathing or heart rate?

____ NUMBER OF DAYS PER WEEK {1-7}

88. NONE

77. DON'T KNOW

99. REFUSED

PA7. During the last month, other than during a regular job, did you participate in ANY physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?

1. Yes

2. No

7. DON'T KNOW

9. REFUSED

PA8. Does your community have adequate sidewalks and protected crosswalks or trails that could be used to walk to the grocery store, bank, or other public locations?

1. Yes

2. No

7. DON'T KNOW

9. REFUSED

PA9. In the last 12 months, have you walked to stores, businesses, or other public locations?

1. Yes

2. No

7. DON'T KNOW

9. REFUSED

PA10. In the last 12 months, have you walked for exercise or recreational purposes?

1. Yes

2. No

7. DON'T KNOW

9. REFUSED

PA11. Does your community have on-street bikeways or trails that could be used to bike to the grocery store, bank, or other public locations?

1. Yes

2. No

7. DON'T KNOW

9. REFUSED

PA12. In the last 12 months, have you biked to stores, businesses, or other public locations?

1. Yes

2. No

8. DON'T HAVE A BIKE/RIDE A BIKE

7. DON'T KNOW

9. REFUSED

PA13. In the last 12 months, have you biked for exercise or recreational purposes?

1. Yes

2. No

8. DON'T HAVE A BIKE/RIDE A BIKE

7. DON'T KNOW

9. REFUSED

Section 8. Determinants of Health – Transportation Issues

The next set of questions ask you about issues related to your use of transportation.

TP1. Are you a licensed driver?

1. Yes

2. No

7. DON'T KNOW

9. REFUSED

TP2. How many licensed vehicles were owned or available for regular use by members of your household during the last 12 months?

____ NUMBER OF VEHICLES {0-66}

77. DON'T KNOW

99. REFUSED

TP3. When you need to get health care, what is the type of transportation you use MOST OFTEN to get to your visit?

[IF MORE THAN ONE TYPE, PROMPT FOR THE ONE USED MOST OFTEN]

11. Drive myself, using my own vehicle

12. Drive myself, using someone else's vehicle

13. Someone else drives me, using my own vehicle

14. Someone else drives me, using their vehicle

15. Takes a taxi or cab

16. Takes public transportation

17. Bikes or walks

18. Other [SPECIFY]

88. DOES NOT HAVE A RELIABLE WAY TO GET TO VISITS

77. DON'T KNOW

99. REFUSED

TP4. In the last 12 months, how often did you need assistance from other sources, such as friends, family, public transportation, and so forth, to get to your health care visit? Would you say...

- 1. Never,
- 2. Sometimes,
- 3. Usually, or
- 4. Always?
- 7. **DON'T KNOW**
- 9. **REFUSED**

TP5. In the last 12 months, was there any time when you needed transportation to or from a health care visit but could not get it for any reason?

- 1. Yes
- 2. No [SKIP TO TP7]
- 7. **DON'T KNOW** [SKIP TO TP7]
- 9. **REFUSED** [SKIP TO TP7]

TP6. Thinking of the most recent time you could not get to a health care visit because of transportation, what was the MAIN reason you could not get there?

[DO NOT READ. SELECT ONLY ONE]

- 1. Transportation cost too much
- 2. My car had broken down
- 3. The person who usually takes me was unavailable
- 4. The transit system was not available
- 5. OTHER [SPECIFY]
- 7. **DON'T KNOW**
- 9. **REFUSED**

TP7. In the last 12 months, how often have you worried about your ability to pay for the cost of transportation to or from a health care visit? Would you say...

- 1. Never,
- 2. Sometimes,
- 3. Usually, or
- 4. Always?
- 7. **DON'T KNOW**
- 9. **REFUSED**

Section 9. Demographics

DM1. Now I have just a few background questions and we'll be finished. How do you identify yourself? Is it...

1. Male
2. Female, or
3. In another way – please specify, if you wish **[SPECIFY]**

9. PREFER NOT TO ANSWER

DM2. What is your current age?

[_ _ _] [18-150]

999. REFUSED

DM3. What is the highest grade or level of school that you have completed?

1. 8th grade or less
2. Some high school (Grades 9 – 11), but did not graduate
3. High school graduate (Grade 12) or GED
4. Some college (1 – 3 years) or technical school
5. 4-year college graduate
6. More than 4-year college degree

7. DON'T KNOW

9. REFUSED

DM4. Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicaid or Medicare?

1. Yes
2. No

7. DON'T KNOW

9. REFUSED

DM5. Which of the following best describes where you live? Do you live...

11. On a farm,
12. In a rural setting, not on a farm,
13. In a rural subdivision outside of city limits,
14. In a small town of less than 5,000 people,
15. In a large town of 5,000 to less than 25,000 people,
16. In a city of 25,000 to less than 50,000 people,
17. In a city of 50,000 to less than 150,000 people, or
18. In a city of 150,000 or more people?

77. DON'T KNOW

99. REFUSED

DM6. Are you currently...

- 11. Employed for wages,
- 12. Self-employed,
- 13. Out of work for more than 1 year,
- 14. Out of work for less than 1 year,
- 15. A Homemaker,
- 16. A Student,
- 17. Retired, or
- 18. Unable to work?

99. REFUSED

DM7. What is your annual gross household income from all sources before taxes? Is it...

- 11. Less than \$15,000,
- 12. \$15,000 to less than \$25,000,
- 13. \$25,000 to less than \$35,000,
- 14. \$35,000 to less than \$50,000,
- 15. \$50,000 to less than \$75,000,
- 16. \$75,000 to less than \$100,000,
- 17. \$100,000 to less than \$150,000, or
- 18. \$150,000 or more?

77. DON'T KNOW

99. REFUSED

[IF DM7 < 77, SKIP TO DM9]

DM8. Can you tell me if your annual gross household income is less than, equal to, or greater than \$50,000?

- 1. Less than \$50,000
- 2. Equal to \$50,000
- 3. More than \$50,000

7. DON'T KNOW

9. REFUSED

DM9. Are you of Hispanic, Latino, or Spanish origin?

- 1. Yes
- 2. No

7. DON'T KNOW

9. REFUSED

DM10. Which one or more of the following would you say is your race?

[SELECT ALL THAT APPLY]

Would you say...

1. White,
2. Black or African American,
3. Asian,
4. Native Hawaiian or Other Pacific Islander,
5. American Indian or Alaska Native, OR
6. SOMETHING ELSE? **[SPECIFY]**
7. **DON'T KNOW**
9. **REFUSED**

CATI NOTE: IF MORE THAN ONE RESPONSE TO DM10; CONTINUE. OTHERWISE, GO TO DM12.

DM11. Which one of these groups would you say BEST represents your race?

1. White
2. Black or African American
3. Asian
4. Native Hawaiian or Other Pacific Islander
5. American Indian or Alaska Native
6. SOMETHING ELSE **[SPECIFY]**
7. **DON'T KNOW**
9. **REFUSED**

DM12. How many children, that is people under the age of 18, live in your household?

____ NUMBER OF CHILDREN

77. **DON'T KNOW**

99. **REFUSED**

DM13. What county do you live in?

_____ County

DON'T KNOW

REFUSED

DM14. What is your ZIP Code?

[]

77777 **DON'T KNOW**

99999 **REFUSED**

DM15. During the time we've been on the phone, in what other activities, if any, were you engaged, such as watching TV or watching kids?

[DO NOT READ – SELECT UP TO 3]

- 11. Working
- 12. Watching kids
- 13. Watching TV
- 14. Cooking
- 15. Driving
- 16. Surfing Internet or Social Media
- 66. OTHER [SPECIFY]
- 88. NO OTHER ACTIVITIES

77. DON'T KNOW

99. REFUSED

[NOTE: IF TALKING TO RESPONDENT ON CELL PHONE, SKIP TO DM17]

DM16. Do you have a cell phone or can you also be reached via cell phone?

[Read only if necessary: Do you have a cell phone for personal or business use?]

- 1. Yes
- 2. No
- 7. DON'T KNOW
- 9. REFUSED

[NOTE: IF TALKING TO RESPONDENT ON LANDLINE, SKIP TO D18]

DM17. Does the house you live in also have a residential landline telephone?

- 1. Yes
- 2. No
- 7. DON'T KNOW
- 9. REFUSED

[IF DM16 or DM17>1, SKIP TO CLOSING]

DM18. How many RESIDENTIAL LANDLINE telephone NUMBERS do you have in your home? Do not include cell phone numbers or fax numbers.

[] RESIDENTIAL PHONE LINES [1-10]

77. DON'T KNOW

99. REFUSED

DM19. Thinking about all the phone calls that you RECEIVE on your landline and cell phone, what percent, between 0 and 100, are received on your CELL PHONE?

_ _ _ Enter percent (1 to 100)

- 888 Zero
- 777 DON'T KNOW
- 999 REFUSED

That's my last question. Everyone's answers will be combined to see what Iowan's perceptions of healthcare are. I want to thank you for your time and cooperation today.

Good-bye.

ENTER FIPS CODE

___ ___ ___ = FIPS

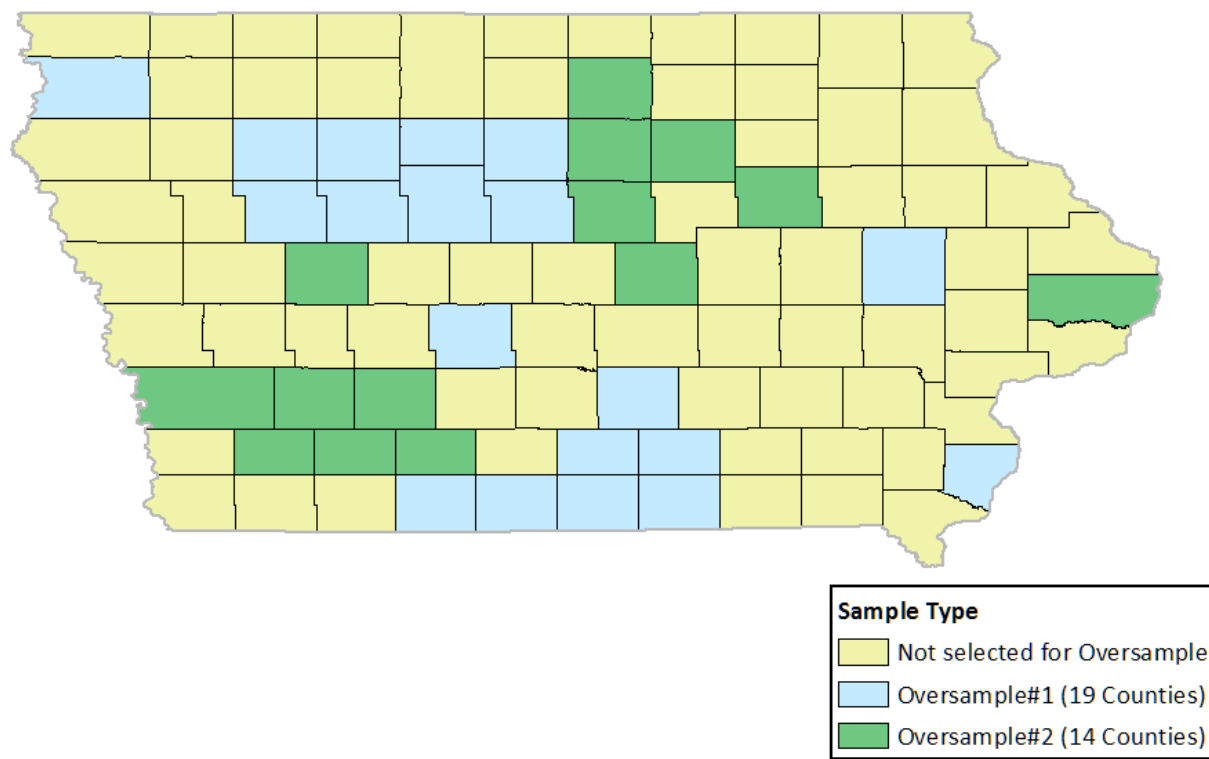
COMMENTS / REMARKS

Addendum 2 – Weighting Methodology

Design Overview:

This study has secured a total of 2,132 interviews with adults 18 or older residing in Iowa. In order to provide a probability-based sample representative of all adults in Iowa, a dual-frame random digit dial (RDD) sampling methodology was used, whereby both landline and cellular telephone numbers were included in the sample. First of all, 10,000 landline and 25,000 cellular telephone numbers were sampled from their respective universe of 3,459,600 and 4,821,000 numbers throughout the entire state of Iowa. Next, oversampling was performed (four times: w2, w3, w4, and w5) to recruit additional sample from selected counties that can be grouped into two geographical areas for further analyses; please see Figure 1 below for illustration. Of the total 2,132 interviews, 1,862 of which were obtained from the cell phone frame while the remaining 270 were obtained from the landline frame.

Figure 1: Sample Type by county. Indicates which counties were selected for inclusion (or not) into the oversample.



Weighting:

Virtually, all survey data are weighted before they can be used to produce reliable estimates of population parameters. While reflecting the selection probabilities of sampled units, weighting also attempts to compensate for practical limitations of a sample survey, such as differential nonresponse and undercoverage. The weighting process for this survey essentially entailed two major steps. The first step consisted of computation of *base weights* to reflect unequal selection probabilities for respondents in different sampling frames and waves (cell phone vs landline; county-oversample waves vs county-not-oversample wave). Base weights were first calculated and adjusted with respect to the oversample to account for multiple paths into survey. For example, respondents with telephone numbers within geographic areas containing the oversample counties would receive higher probability to be selected that resulted in lower base weights compared to others. Base weights were also adjusted for the increased chance of being selected for adults with both landline and cell phones, and the decreased chance of being selected if there is more than one adults per household.

In the second step, base weights were further calibrated to match the distribution of known characteristics of the target population. In other words, the resulting final weights will aggregate to reported totals for the target population. The variables chosen for this calibration step (a.k.a., post-stratifications step) include gender by age, race/ethnicity, gender by education, household income, employment status, place of residence, sample type and telephone status. In addition, for the post-stratification step, we used the self-reported county to control for sample type. This strategy was chosen because it preserves the base weight calculation according to how the sample was pulled (helpful if this study is to be replicated) while also adjusting the final weights to known population controls based on the self-reported residence of

the respondent (helpful for doing comparisons with respect to oversampled counties or not).

For the second step, weights were computed (raked) simultaneously along several dimensions listed above using the *WgtAdjust* procedure of SUDAAN. The requisite population totals for weighting were obtained from the 2016 Current Population Survey March Supplement. Two exceptions were telephone status, which was obtained from the 2015 National Health Interview Survey on Wireless Substitution and place of residence which came from the American Community Survey 5-year estimates. It should be noted that survey data for a number of demographic questions, such as race, age, and education, included missing values. All such missing values were first imputed using a *hot-deck* procedure before construction of the survey weights. As such, respondent counts reflected in the following tables correspond to the post-imputation step.

Table 1. First raking dimension for weight adjustments by gender and age

Age	Males				Females			
	Respondents		Population		Respondents		Population	
18-24	87	8.0%	137,631	11.8%	65	6.2%	140,494	11.7%
25-34	159	14.8%	220,377	18.9%	135	12.8%	208,812	17.3%
35-44	129	12.1%	192,228	16.5%	139	13.2%	180,073	15.0%
45-54	180	16.6%	173,702	14.9%	180	17.0%	210,382	17.5%
55-64	252	23.4%	212,716	18.2%	226	21.4%	208,582	17.3%
65+	270	25.1%	231,382	19.8%	310	29.4%	255,360	21.2%
Total	1,077	100.0%	1,168,036	100.0%	1,055	100.0%	1,203,703	100.0%

Table 2. Second raking dimension for race/ethnicity

Race / Ethnicity	Respondents		Population	
White, Non-Hispanic	1,948	91.4%	2,073,110	87.4%
Black, Non-Hispanic	49	2.3%	53,980	2.3%
Other, Non-Hispanic	48	2.3%	99,881	4.2%
Hispanic	87	4.0%	144,768	6.1%
Total	2,132	100.0%	2,371,739	100.0%

Table 3. Third raking dimension for weight adjustments by gender and education

Education	Males				Females			
	Respondents		Population		Respondents		Population	
Less than High School	61	5.7%	106,509	9.1%	36	3.4%	96,550	8.0%
High School or GED	323	30.0%	401,294	34.4%	248	23.5%	327,026	27.2%
Some College / Tech.	338	31.4%	358,267	30.7%	397	37.6%	402,645	33.5%
College Graduate	221	20.5%	217,763	18.6%	242	23.0%	283,130	23.5%
Post Grad or more	134	12.4%	84,203	7.2%	132	12.5%	94,352	7.8%
Total	1,077	100.0%	1,168,036	100.0%	1,055	100.0%	1,203,703	100.0%

Table 4. Fourth raking dimension for weight adjustments by income

Household Income	Respondents		Population	
Under \$25,000	418	19.6%	296,982	12.5%
\$25,000 to \$49,999	520	24.4%	534,898	22.6%
\$50,000 to \$74,999	417	19.6%	427,337	18.0%
\$75,000 to \$99,999	327	15.3%	354,539	14.9%
\$100,000 to \$149,999	286	13.4%	473,716	20.0%
\$150,000 or more	164	7.7%	284,267	12.0%
Total	2,132	100.0%	2,371,739	100.0%

Table 5. Fifth raking dimension for weight adjustments by employment status

Employment Status	Respondents		Population	
Currently Employed	1,321	62.0%	1,582,892	66.70%
Unemployed/NILF	811	38.0%	788,847	33.3%
Total	2,132	100.0%	2,371,739	100.0%

Table 6. Sixth raking dimension for weight adjustments by place of residence

Place of Residence	Respondents		Population	
Farm or Rural Subdivision	610	28.6%	469,367	19.8%
Small Town (<5,000)	495	23.2%	511,110	21.6%
Large Town (5,000 - 25,000)	334	15.7%	448,733	18.9%
Small City (25,000 - 150,000)	543	25.5%	786,706	33.2%
Large City (>150,000)	150	7.0%	155,823	6.5%
Total	2,132	100.0%	2,371,739	100.0%

Table 7. Seventh raking dimension for weight adjustments by sample type

Sample Type	Respondents		Population	
Not selected for Oversample	1,185	55.6%	1,579,718	66.6%
Oversample#1 (19 Counties)	487	22.8%	436,126	18.4%
Oversample#2 (14 Counties)	460	21.6%	355,895	15.0%
Total	2,132	100.0%	2,371,739	100.0%

Table 8. Eighth raking dimension for weight adjustments by telephone status

Telephone Status	Respondents		Population	
Cell-only	1,151	54.0%	1,338,093	56.4%
Others	981	46.0%	1,033,646	43.6%
Total	2,132	100.0%	2,371,739	100.0%

Variance Estimation for Weighted Data:

Survey estimates can only be interpreted properly in light of their associated sampling errors. Since weighting often increases variances of estimates, use of standard variance calculation formulae with weighted data can result

in misleading statistical inferences. With weighted data, two general approaches for variance estimation can be distinguished. One method is *Taylor Series linearization* and the second is *replication*. There are several statistical software packages that can be used to produce design-proper estimates of variances using linearization or replication methodologies, including:

SAS: <http://www.sas.com>

SUDAAN: <http://www.rti.org/sudaan>

WesVar: http://www.westat.com/westat/statistical_software/wesVar

Stata: <http://www.stata.com>

An Approximation Method for Variance Estimation can be used to avoid the need for special software packages. Researchers who do not have access to such tools for design-proper estimation of standard errors can approximate the resulting variance inflation due to weighting and incorporate that in subsequent calculations of confidence intervals and tests of significance. With w_i representing the final weight of the i^{th} respondent, the inflation due to weighting, which is commonly referred to as *Design Effect*, can be approximated by:

$$\delta = 1 + \frac{\sum_{i=1}^n (w_i - \bar{w})^2}{n - 1} \bar{w}^2$$

For calculation of a confidence interval for an estimated percentage, \hat{p} , one can obtain the conventional variance of the given percentage $S^2(\hat{p})$, multiply it by the approximated design effect, δ , and use the resulting quantity as adjusted variance. That is, the adjusted variance $\hat{S}^2(\hat{p})$ would be given by:

$$\hat{S}^2(\hat{p}) \approx \frac{\hat{p}(1 - \hat{p})}{n - 1} \left(\frac{N - n}{N} \right) \times \delta$$

Subsequently, the (100- α) percent confidence interval for P would be given by:

$$\hat{p} - z_{\alpha/2} \sqrt{\frac{\hat{p}(1 - \hat{p})}{n - 1} \left(\frac{N - n}{N} \right) \times \delta} \leq P \leq \hat{p} + z_{\alpha/2} \sqrt{\frac{\hat{p}(1 - \hat{p})}{n - 1} \left(\frac{N - n}{N} \right) \times \delta}$$

Summary Information for the Weighted Data:

An overall histogram illustrating the design weights computed from the first step as well as the final, calibrated weights from the second are shown in Figures 2 and 3, respectively. Based on the UWE equation in the previous sample, the value computed for this study based on the final weights is 1.605. The UWE for the first stage weight (without calibration to population totals) is 1.237. The increase in the UWE is expected as the calibration process potentially decreases coverage/nonresponse bias at the expense of increases in the variability of the sampling weights. However, in this case the increase is rather small. The UWE of 1.605 can be used in the computation of confidence intervals for estimates derived using the final sampling weights as described in the previous section.

Figure 2: Distribution of the Base Design Weights computed from Step 1 of the overall weight computation (including base weight-probability of selection as well as multiplicity for within household selection of one adult).

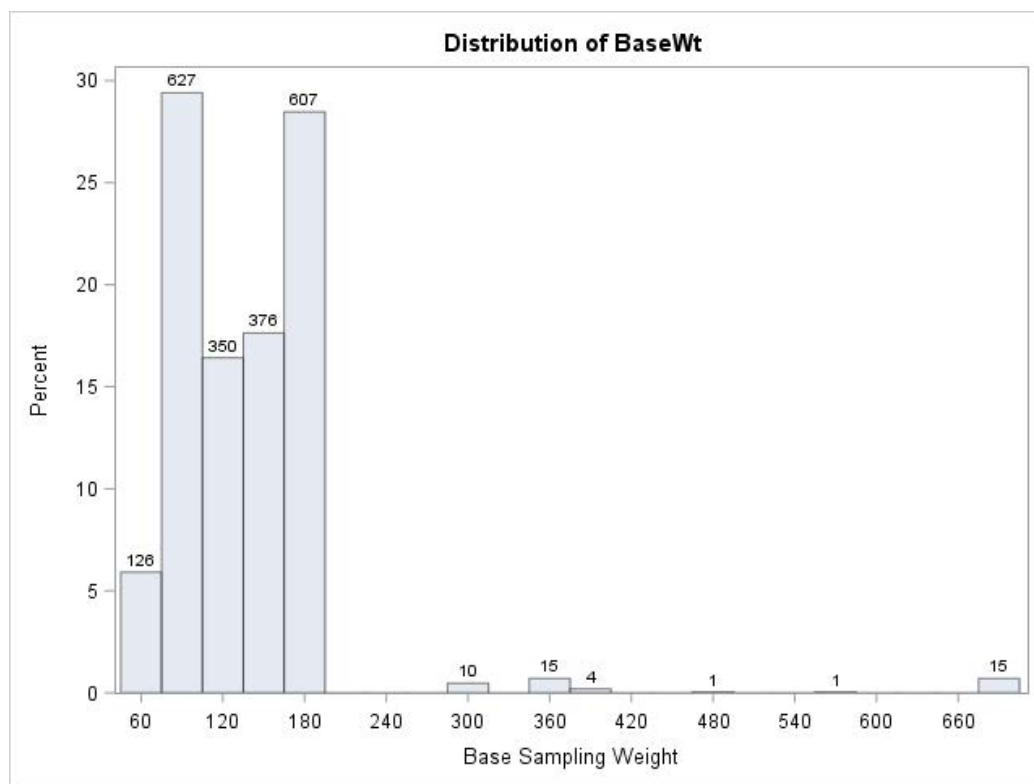
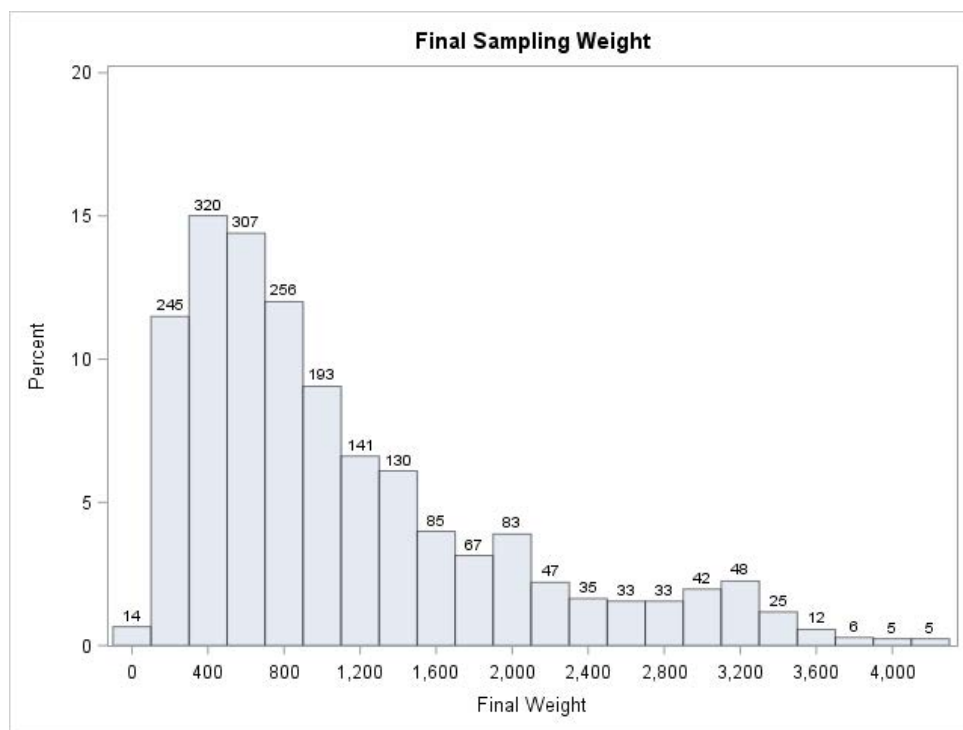


Figure 3: Distribution of the final calibrated sampling weights. These weights should be used in all analyses.



Appendix B - Addendum 2 References

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Appendix C. Diabetes Programming

Community Evidence-Based Programs To Support Self-Management For People With Diabetes And Prediabetes In Iowa

Diabetes Self-Management Education/Training (DSME/T) ADA-recognized/AADE-accredited (most also state-certified)	Stanford Chronic Disease Self-Management Program/Education (CDSMP/E); In Iowa – Better Choices, Better Health (BCBH)	National DPP Lifestyle Change Program (NDPP, DPP) (YDPP – programs at/conducted by Ys)
Specific to diabetes	Addresses all chronic conditions	Specific to those with prediabetes or at high risk for type 2 diabetes
Participants all have diabetes; family members welcome; physician referral required	Participants have a variety of self-reported chronic conditions; family and others who assist can attend	Participants have a diagnosis of prediabetes, or are at high risk for type 2 diabetes; criteria in notes*
Focuses on knowledge/skills	Focuses on action planning/problem solving	Focuses on nutrition, physical activity, stress management; goal is 5-7% weight loss
Licensed Health Professional (Nurse, dietitian, pharmacist and/or a certified diabetes educator)	2 Lay Leaders (at least one who has a chronic condition)	Lifestyle Coach, can be a lay leader or Licensed Health Professional
Focuses on the medical management of the disease and 7 self-care behaviors: healthy eating, being active, monitoring, taking medication, problem solving, healthy coping, and reducing risks	Focuses on management of lifestyle behaviors and emotional management	Focuses on lifestyle change (nutrition, physical activity)
10 hours (typically 1-2 hours individual counseling; 8-9 hours in a group)	15 hours, all in group (2.5 hours/week for 6 weeks)	Year-long program consisting of 16 sessions (1 hour/week) during the first phase and 6 follow up sessions (1 hour/month) during the second phase
Reimbursed by Medicare, Medicaid (in Iowa) and other third-party payers; insurance co-pay can apply	Usually minimal cost or no fee; currently not reimbursed	Cost varies – usually between \$429-500/person for the year; a few worksites and insurance companies cover the cost – check with the worksite or insurance company
Variation among ADA-recognized/AADE-accredited DSME/T program content	Scripted and timed content and processes for each session; random control trial tested	Follows a CDC-approved curriculum
Content areas include: <ul style="list-style-type: none"> • Diabetes disease process and treatment options • Incorporating nutrition management, physical activity, and utilizing medications • Monitoring blood glucose and using results to improve control • Preventing, detecting, and treating acute and 	Content areas include: <ul style="list-style-type: none"> • Techniques to deal with problems such as fatigue, pain, difficult emotions • Physical activity • Appropriate use of medications • Communicating effectively with family, friends, and health professionals • Healthy eating, weight management 	Content areas include: <ul style="list-style-type: none"> • Fat/Kcal • Healthy eating • Physical activity • Problem solving • Taking charge of your environment • Difficulties of lifestyle change • Stress management

DSME/T continued chronic complications <ul style="list-style-type: none"> • Goal setting and problem solving • Integrating psychosocial adjustment • Preconception care and management during pregnancy (if applicable) 	CDSMP/BCBH continued <ul style="list-style-type: none"> • Decision making 	NDPP/DPP/YDPP continued <ul style="list-style-type: none"> • Staying motivated
ADA recognized and AADE accredited DSME/T programs must the National Standards for Diabetes Self-Management Education and Support; selected data submitted to ADA or AADE, and by state-certified programs to the Iowa Department of Public Health for reporting/evaluation (IAC 641-9)	Uniform content and processes allow for evaluative data aggregation across programs in different geographic areas; data inputted into National Data Repository - National Council on Aging can be retrieved for reporting/evaluation	Participant data, including weight and physical activity minutes, are tracked and reported to the Centers for Disease Control and Prevention (CDC) Diabetes Prevention Recognition Program (DPRP); organizations applying for CDC-recognition must achieve participant outcomes as outlined in the DPRP National Standards
http://www.idph.iowa.gov/diabetes	http://www.idph.iowa.gov/betterchoicesbetterhealth	http://www.idph.iowa.gov/diabetes

Notes:

DSME/T addresses more content in fewer hours, typically engaging people soon after diabetes is diagnosed. DSME/T provides disease-specific knowledge and skills along with practical problem-solving and action planning. CDSMP can complement DSME/T. Compared to diabetes “support” groups, the CDSMP has more structure and accountability. CDSMP has not been evaluated for impact on prediabetes. The National DPP lifestyle change program is not designed for people with a diagnosis of diabetes. It is an evidence-based program for people with prediabetes (*documented blood-based diagnostic test – blood glucose or A1c), a history of gestational diabetes, or those at high risk for type 2 diabetes identified through a self-administered Prediabetes Screening Test.

Supported by Cooperative Agreement Number 6NU58DP004807-03-01 from the Centers for Disease Control and Prevention (CDC)

Adapted for Iowa from Vermont Department of Health, Diabetes Community Action Coalition of Fulton County,
and National Association of Chronic Disease Directors documents

Iowa 12.2015

Appendix D. C3 Survey and Interview

- Steering Committee Member Survey
- Healthcare Provider Survey
- Clinic Manager Interviews

Steering Committee Member Survey

A web-based survey was conducted of all six C3s and their 127 committee members. The survey's aggregate response rate was 55 percent, as shown in Table 1 below. The steering committee survey included a brief overview of why the survey was being conducted and for those that needed additional information about the Iowa SIM and C3s, additional information was made available electronically as well; however, few survey respondents (5.9%) requested additional information about the Iowa SIM and C3s, an indication that respondents are aware of both.

Table 1. Number of C3 Steering Committee Members and Survey Response Rate by C3

C3	# of Steering Committee Members	Survey Response Rate
Implementation Site 1 (I1)	18	78%
Implementation Site 2 (I2)	12	50%
Implementation Site 3 (I3)	15	80%
Developmental Site 1 (D1)	37	32%
Developmental Site 2 (D2)	27	56%
Developmental Site 3 (D3)	18	61%

The survey asked questions about the survey respondent's role in the C3 and representation on the steering committee, as well as questions about awareness and knowledge of the local C3, participation in C3 activities, and satisfaction with C3 initiatives. Two sets of survey questions were used: one set for developmental grantees and one set for implementation grantees. Each C3 steering committee received a survey for their C3 resulting in six C3 steering committee surveys. This approach allowed the survey instruments to be consistent while including introductions that reflected the names and geographic areas of each C3.

Although two survey instruments were used, there were minimal differences between the implementation and developmental surveys. The developmental survey instrument included questions reflecting programs being designed that "will" address needs as compared to implementation programs that "are" already addressing needs – these differences are reflected in Table 3 and 4 below. Using a Likert scale, survey respondents were asked to rate their agreement with various statements, using the ratings: "strongly disagree", "disagree", "neither agree nor disagree", "agree", and "strongly agree".

When asked to report their role on the C3 steering committee, survey respondents indicated they are public health providers (29%), hospital leaders (20.5%), community members (20.5%), clinic leaders (16%), healthcare providers (11%), and others (25%). When the survey asked respondents if they were aware of the C3's role in their community, they reported they "strongly agree" (54.7%), "agree" (42.2%), or "strongly disagree" (3.1%). The two survey respondents that "strongly disagreed" serve on two different steering committees and both "agree" that they participate in the local C3's planning and development. When the survey stated, "I am aware of the C3 initiatives underway in my community", 50% "strongly agree", 45.3% "agree", and 4.7% "neither agree nor disagree". When the survey stated, "I participate in local C3 initiative planning and development", 35.4% "strongly agree", 45.3% "agree", 12.3% "neither agree nor disagree", and 1.4% "disagree". One developmental C3 (D3) had all steering committee members indicating they "agree" or "strongly agree" that they participate in C3 planning and development. These responses indicate C3 steering committee members are aware of and participate in the planning and development of the local C3.

C3 steering committee members were asked to rate their agreement that the C3 uses its community health needs assessment/health improvement plan to guide C3 planning and development; they "strongly agree" (32.3%), agree (56.9%), or "neither agree nor disagree" (10.8%). As indicated in Table 2 below, steering committee members were most in agreement with, "in the past year, community partners/social services have been working more/better together to meet patients' needs", followed by "care coordination needs in my community will be addressed by the local C3 initiatives". Considering the differences between developmental and implementation grantees, developmental grantee steering committee members were more likely to report they participate in C3 initiative planning and development and they are more likely to "strongly agree" or "agree" that community member' diabetic, obesity, and smoking cessation needs will be addressed because of the C3. Meanwhile, implementation grantee steering committee members are more likely to "strongly agree" or "agree" that care coordination needs will be addressed through the C3 and that community partners/

social services agencies have been working more/better together to meet patient needs.

When C3 steering committee members were asked about satisfaction with the C3 and the initiatives underway in their communities, they reported: 44.6 percent are “very satisfied”, 40 percent are “satisfied”, 13.9 percent are “neither satisfied nor dissatisfied”, and 1.5 percent are “dissatisfied”. There was a correlation between role/representation on the committee: clinic leaders were the most likely to be “very satisfied” (63.6%).

Considering the responses of C3 developmental grantees as compared to C3 implementation grantees as shown in Tables 2 and 3 below, there is agreement across both groups in terms of “meeting needs”; however, there appears to be more confidence with implementation C3s. This isn’t surprising given that their project plans are already underway/being implemented.

Table 2: Agreement with Activities and Outcomes of All C3 Initiatives Meeting Community Member Needs

Activities and Outcomes of the C3 Initiatives	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Community members’ needs related to social determinants of health will/are be(ing) addressed because of the local C3 initiatives.	41.5%	44.6%	10.8%	3.1%	0%
Community members’ diabetic needs will/are be(ing) addressed because of the local C3 initiatives.	38.5%	43.1%	15.9%	3.1%	0%
Community members’ obesity related issues will/are be(ing) addressed because of the local C3 initiatives.	29.2%	41.5%	24.6%	4.6%	0%
Community members’ smoking cessation needs will/are be(ing) addressed because of the local C3 initiatives.	20%	46.2%	26.2%	7.7%	0%
Care coordination needs in my community will/are be(ing) addressed through the local C3 initiative.	40%	49.2%	10.8%	0%	0%
In the past year, community partners/social services have been working more/better together to meet patient needs.	46.2%	43.1%	10.8%	0%	0%

Table 3. Agreement with Activities and Outcomes of Developmental C3 Initiatives Meeting Community Member Needs

Activities and Outcomes of the Developmental C3 Initiatives	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Community members’ needs related to social determinants of health will be addressed because of the local C3 initiatives.	35.2%	54.1%	10.8%	0%	0%
Community members’ diabetic needs will be addressed because of the local C3 initiatives.	37.8%	48.7%	13.5%	0%	0%
Community members’ obesity related issues will be addressed because of the local C3 initiatives.	27%	51.4%	18.9%	2.7%	0%
Community members’ smoking cessation needs will be addressed because of the local C3 initiatives.	16.2%	56.8%	21.6%	5.4%	0%
Care coordination needs in my community will be addressed through the local C3 initiative.	37.8%	46%	16.2%	0%	0%
In the past year, community partners/social services have been working more/better together to meet patient needs.	48.7%	37.8%	15.5%	0%	0%

Table 4. Agreement with Activities and Outcomes of Implementation C3 Initiatives Meeting Community Member Needs

Activities and Outcomes of the Implementation C3 Initiatives	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Community members' needs related to social determinants of health are being addressed because of the local C3 initiatives.	50%	32.2%	10.7%	7.1%	0%
Community members' diabetic needs are being addressed because of the local C3 initiatives.	39.3%	35.7%	17.9%	7.1%	0%
Community members' obesity related issues are being addressed because of the local C3 initiatives.	32.1%	28.6%	32.1%	7.1%	0%
Community members' smoking cessation needs are being addressed because of the local C3 initiatives.	25%	32.1%	32.1%	10.7%	0%
Care coordination needs in my community are being addressed through the local C3 initiative.	43%	54%	4%	0%	0%
In the past year, community partners/social services have been working more/better together to meet patient needs.	43%	50%	7%	0%	0%

Healthcare Provider Survey – Implementation Site 2

A mailed healthcare provider survey was conducted of those healthcare providers participating in the C3 at Implementation site 2. The survey was mailed to 42 nurse practitioners, physicians, physician assistants, psychiatrists, and two registered nurses. The survey response rate was 18%, with six respondents reporting they are physicians, one reporting they are a nurse practitioner, and one not stating their profession.

The survey asked questions about C3 awareness and knowledge, participation in C3 initiatives, C3 satisfaction overall, and background information on the survey respondent. For the awareness, knowledge, and participation questions, the respondents were asked to use a Likert scale ranging from “strongly disagree” to “strongly agree” (the same used in the steering committee survey) to rate the 17 statements provided. When asked about awareness of: the Iowa SIM, C3's role in the community, C3 activities underway, and support for clinic's collaboration in the C3 initiative and activities, two of the healthcare providers reported they “agree” while all others reported they “strongly disagree” or “disagree” they are aware. When asked if they are aware of the local and regional health and social services available to patients, all but two of the survey respondents reported they “agree” or “strongly agree” and when asked if they support their clinic's collaboration with the C3 initiatives and activities, five respondents reported they were “neutral” or “agree”, two reported they “strongly disagree” and one was unsure.

When asked about participation in the C3 at Implementation site 2, one survey respondent consistently reported participation, using the C3 to learn about and support patients' social determinants of health, diabetes and care coordination needs. All but one health care provider reported they “agree” or “strongly agree” that social needs and social determinants of health impact patients. In addition, one health care provider reported they “agree” that care coordination has improved for their patients and they are working more/better with community partners/social services to meet patient needs because of the C3.

When asked about satisfaction with the local C3 initiative and their role in the local C3, one health care provider reported they are “very satisfied” while all others report they are “neither satisfied nor dissatisfied”. When given an opportunity to make comments about the C3 at the end of the survey, three survey respondents stated they are not aware of the C3 and/or the survey was the first time they learned of the C3. No other comments were made.

Although the survey response rate was low and survey respondents reported a lack of awareness of the C3 initiative at Implementation site 2, it is possible that their clinic is participating and their patients are being served as a result of interacting with the C3. This could be attributed to the nature of the C3 activities being imbedded in activities and operations without attributing that work to the C3 and its goals. It could also be due to referrals into the C3 are being made from the clinic's care coordinators, limiting the healthcare provider's contact with the C3 as whole. A follow-up survey in 2018 may determine whether these connections have been made and if C3 activities are impacting services and care coordination at the healthcare provider level. As other C3s further engage their healthcare providers, surveys of these groups may reflect these system changes/awareness as well.

Clinic Manager Interviews

Two clinic manager telephone interviews were conducted of clinic managers participating in the Implementation site 1 and Implementation site 3 C3 counties. Interview 1 included the clinic manager and Interview 2 included a clinic director as well as a care manager. Clinic 1 is an independent, stand-alone clinic with extensive wrap-around services, approximately 9,000 patient visits per year, and serving a predominantly low income, Hispanic population. Clinic 2 is part of a larger physician-owned clinic with primary care and specialty care services, over 450,000 visits per year at 10 locations, and a primarily Medicare and commercially insured population. Both clinics were providing care coordination services to patients prior to the Iowa SIM C3.

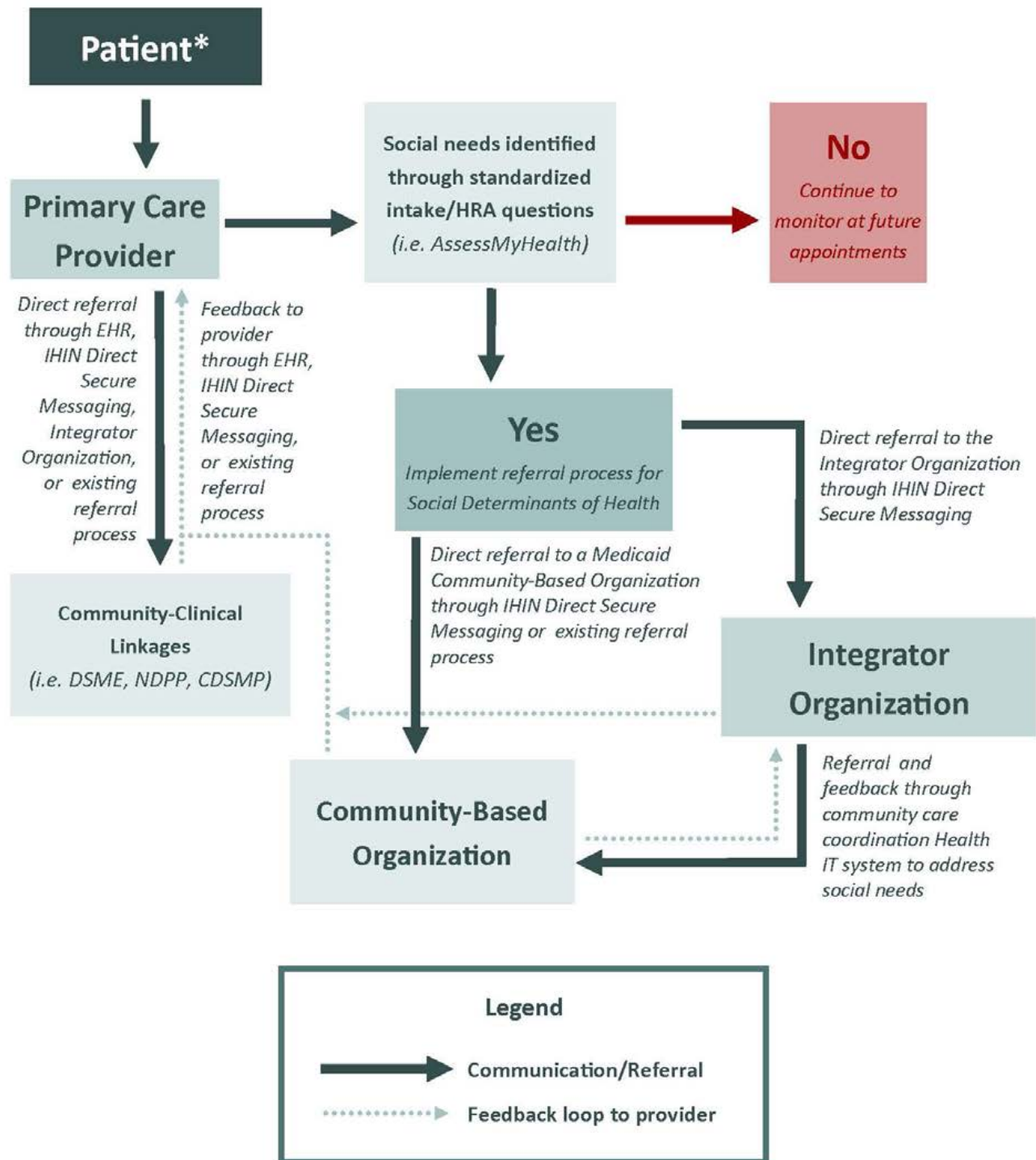
Clinic 1 and 2 managers agreed that their operations have not changed because of the C3; however, roles and operations are constantly changing due to Medicare, other insurers, and health policy in general. Both also agree that physicians are in tune with patients' social determinants of health needs and referrals are being made to internal care coordinators and external services as needed to meet those needs. Clinic managers also agree that no data sharing is occurring between the C3s, clinics, and other social/health services organizations outside of referral forms that are faxed or entered electronically.

Clinic 2 explained how the C3 is impacting their patients: if the clinic's internal care coordinator consults with a patient on identified needs and determines that needs are not being met and/or they have questions about needs being met, the care coordinator may go back and consult with the physician, recommending a home visit by a C3 team member. If a home visit is deemed appropriate, the care coordinator will complete an e-referral for a C3 home visit. After the home visit and as services are provided, the clinic receives updates on patient needs and services provided. Clinic management noted that clinic staff do not make home visits and therefore, they are often unable to determine a patient's "real" needs. Having access to this home visit information has reportedly been "instrumental" in meeting several patient's needs. Additionally, clinic staff believe it would be helpful if these same services were available in the neighboring, more urban county, where most of their patient receive care and reside.

Clinic management at both clinics report that because of the C3, they are: 1) more aware of and updated on local health and social services and 2) aware of improved patient outcomes that can be directly attributed to the work of the C3 and improved care coordination.

Community and Clinical Care (C3) Initiative

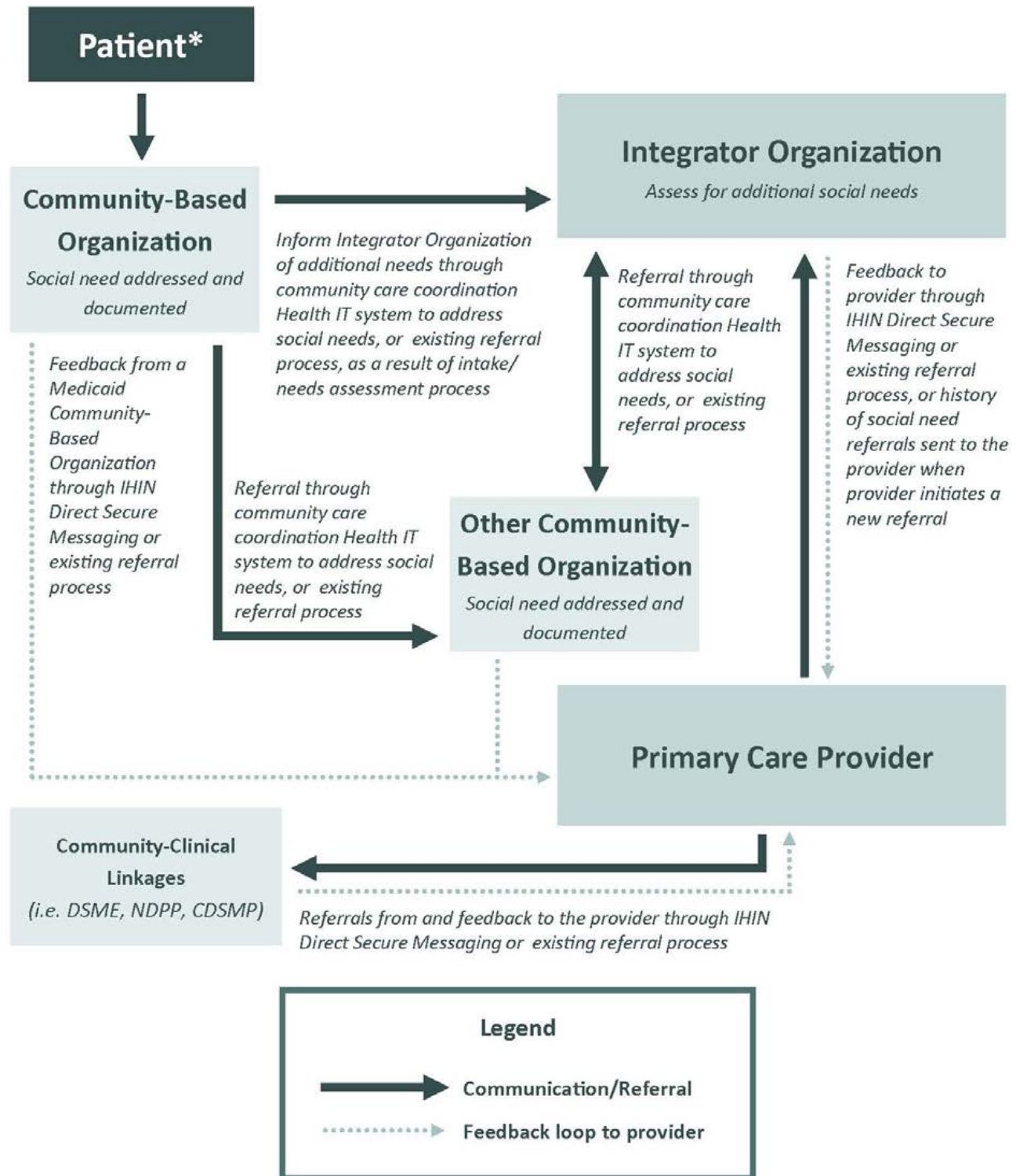
Referral Process Resulting From Patient Visit to Primary Care Provider



**Initial SIM test includes only individuals in the target population or preventable ED visits and/or readmissions*

Community and Clinical Care (C3) Initiative

Referral Process Resulting From Patient Visit to Community-Based Organization



*Initial SIM test includes only individuals in the target population or preventable ED visits and/or readmissions

Appendix F. C3 RFP SSP Objectives, Tactics, and Measurement Targets

Objective 1. Identify target population by risk (3 tactics)

Objective 2. Improve diabetes management (1 tactic)

Objective 3. Link to community resources and clinical-community programs and services (3 tactics)

Objective 4. Improve healthcare transitions (4 tactics)

Objective 5. Decrease the incidence of diabetes (2 tactics)

Objective 6. Address community-wide prevention (1 tactic)

Objective 7. Develop and maintain the C3 structure (4 tactics)

Objective 1: Identify target population by risk				
Required Tactic Source		Measure		
		Description	Frequency	
1.1	Develop or improve systems to identify high-risk patients (HbA1C>9) - Educate and equip providers to address diabetes risk factors and screening with patients (Diabetes SSP 2.3-B*)	NQF 59 [PQRS 1]	Diabetes: Hemoglobin A1c Poor Control Collected by clinics within the C3	Quarterly
1.2	Identify comorbidities including vascular diseases, tobacco use, etc. (Diabetes SSP 2.2-A)	NQF 0729 & NQF 59	Optimal Diabetes Care: A1c, LDL, blood pressure, tobacco non-use, daily aspirin usage Collected by clinics within the C3	Quarterly
1.3	Promote the implementation of AssessMyHealth, a comprehensive and high quality health risk assessment that identifies patient clinical, social, and community needs (Care Coordination SSP – 1.1-F)	Process Measures	Total number of HRAs completed by C3 partners (to be collected by IME on behalf of each C3)	Monthly

Objective 2: Improve diabetes management				
Required Tactic Source		Measure		
		Description	Frequency	
2.1	Implement evidence-based interventions to enhance diabetes management (Diabetes SSP 3.1-A)	NQF 0729	Collected by clinics within the C3	Quarterly
		Adverse Drug Events	Collected through the HIIN by IHC	
		Readmission s/ ED visits	Provided by the IME	

Objective 3: Link to Community Resources and Clinical-Community Programs and Services				
Required Tactic Source		Measure		
		Description	Frequency	

3.1	Maximize effectiveness and use of diabetes self-management education and training (DSME), and the Chronic Disease Self-Management Program (CDSMP) (Diabetes SSP 3.4-B)	Process Measures	<ul style="list-style-type: none"> • Total number of available DSME programs in the service area • Total number of available CDSMPs in the service area • Total number of referrals to each program 	Quarterly
3.2	Promote care coordination across a community of providers (Diabetes SSP 3.2-A)	Process Measures	Number of referrals to: <ul style="list-style-type: none"> • Food assistance • Housing/rent • Education • Healthcare access (including insurance, pharmacy, mental health, dental) • Transportation • Social and community support 	Quarterly
3.3	Ensure providers are aware of and refer patients to appropriate resources to address social determinants of health barriers to management and treatment (Diabetes SSP 3.2-C and 3.2-D) (includes tactics 1.3-A and 1.3-B from the Care Coordination SSP)			

Objective 4: Improve healthcare transitions

Required Tactic Source		Measure		
		Description	Frequency	
4.1	Designate defined care coordination roles and/or responsibilities within the clinic, practice, or organization (Care Coordination SSP 1.2-C)	Process Measures	QI Work Plan	Quarterly
4.2	Engage providers and patients in glycemic management and best practices (Diabetes SSP 3.1-B)	NQF 59	Collected by clinics within the C3	Quarterly
		Admissions, readmissions & ED visits	Collected by the IME	
4.3	Promote use of available HIT resources to allow mutual access to patient care information from all appropriate members of the patient care team, i.e. Iowa Health Information Network (IHIN), shared Electronic Health Records (EHR) view and messaging functionalities (Care Coordination SSP 2.2-A)	Process Measures	<ul style="list-style-type: none">• # of hospitals in the service area connected to and using the IHIN (provided by IDPH)• # of LPH agencies in the service area using the IHIN for direct secure messaging• # of community-based organizations with access to care coordination software or HER view and messaging functionalities• # of eligible hospitals utilizing SWAN alerts for care coordination• # of hospitals sending ADT data to the SWAN	Quarterly
4.4	Align coordination among organizations that share responsibility for assuring or overseeing Healthcare Associated Infection (HAI) surveillance, prevention, and control (Healthcare Associated Infections SSP 1.1-A). Includes promoting better foot care to decrease infection rates in diabetes and assuring education and referral flow process for providers on preventing foot infections	Process Measures	<ul style="list-style-type: none">• Protocol exists or is under development by the end of the contract period	Yearly

Objective 5: Decrease the incidence of diabetes

Required Tactic Source		Measure		
		Description	Frequency	

5.1	Implement evidence-based interventions to enhance overweight and obesity identification and treatment, such as established treatment algorithms (Obesity SSP 3.2-A)	NQF 421 [PQRS 128]	Preventive Care and Screening: Body Mass Index Screening and Follow-Up Plan Collected by clinics within the C3	Quarterly
5.2	Increase participation in diabetes primary prevention programs, including National Diabetes Primary Program (NDPP) and YMCA Diabetes Prevention Program (YDPP) (Diabetes SSP 1.2-B)	Process Measures	<ul style="list-style-type: none"> • Number of re-ferrals to NDPP/YDPP • Number of NDPP/YDPPs • Number of patients who complete NDPP/YDPPs 	Quarterly

Objective 6: Address Community-Wide Prevention

Required Tactic Source		Measure		
		Description	Frequency	
6.1	Include a minimum of one tactic and supporting activity(ies) from the Diabetes or Obesity Statewide Strategy Plan to address Bucket 3: Community-Wide Prevention	Determined by Applicant		

Objective 7: Develop and maintain the C3 structure







Required Tactic Source		Measure		
		Description	Frequency	
7.1	Assure C3 alignment with the Accountable Communities of Health model	Process Measure	<ul style="list-style-type: none"> • Number of Steering Committee meetings • Meeting attendance by required members (%) • Total number of engaged coalition partners • Number of coalition members implementing tactics from the statewide strategy plans 	Quarterly
7.2	Align the hospital and Local BOH CHNA/HIP	Process Measures	<ul style="list-style-type: none"> • Number of same or similar priorities in each CHNA • Number of shared roles in each HIP 	Baseline and year-end
7.3	Prepare the delivery system for payment reform, including accessing VIS scores, etc.	Process Measures	Determined by applicant	Semi-annually
7.4	Participate in quality improvement activities, including performance improvement, participation in required trainings and evaluation	Process Measure	Completion of a QI plan by June 30, 2017	Monthly

Appendix G. SIM Data Portal Process and Outcome Measures

Diabetes Management
Comprehensive Diabetes Care: Blood Pressure Control: NQF #0061
Hemoglobin A1c Management: NQF #0059 (MIPS measure)
Optimal Diabetes Care Composite: NQF #0729
Comprehensive Diabetes Care: LDL-C Control: NQF #0064
DSME programs offered
Total referrals to DSME
Total number of individuals completing DSME
Total number of individuals completing CDSMP
Total number of available programs (NDPP/YDPP)
Referrals to a Diabetes Prevention Program
Medication Management
Adverse Drug Events
Adverse Drug Events Blood Glucose Less than 50
Readmission Prevention
Readmission (Potentially Preventable Readmissions - PPR)
ED Visits (Potentially Preventable ED Visits - PPV)
Use of the IHIN
Use of SWAN alerts
Hospitals sending Admissions, Discharge, and Transfer (ADT) data to the SWAN
SDH Screening and Referral
Economic Stability
Education
Health and health care
Transportation
Social and Community Context
Number of Closed SDH Referrals to Providers
Obesity Prevention
Preventive Care and Screening: Body Mass Index Screening and Follow-Up: NQF #0421 (MIPS measure)
Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents: NQF #0024 (MIPS measure)

Appendix H. Community Scorecard Prototype

Test Community - Scorecard

Focus Area	Measure	Baseline	C3 Performance Rate	Peer Performance Rate	Community Trend
Adverse Drug Event	Adverse Drug Event Rate	YES	6.00	5.00	
BMI Screening	BMI 18-64 y/o (Quality ID:128, NQF: 0421)	YES	6.00	9.00	
Diabetes	Diabetes: Hemoglobin A1c (HbA1c) Poor Control (>9%) (Quality ID:001, NQF:0059)	YES	9.00	7.00	
Social Determinants of Health Assessment	Economic Stability	NO	7.00	10.00	
Social Determinants of Health Assessment	Education	NO	9.00	9.00	
Social Determinants of Health Assessment	Health and Health Care	NO	9.00	8.00	
Healthcare Acquired Infections	Hospital-Acquired Conditions – Clostridium Difficile	YES	6.00	6.00	
Social Determinants of Health Assessment	Neighborhood and Built Environment	NO	9.00	4.00	
Care Coordination Inquiry	Referrals - Community Partner	YES	8.00	1.00	
Care Coordination Inquiry	Referrals - Provider	YES	2.00	1.00	
Care Coordination Inquiry	Referrals - Self	YES	5.00	4.00	
Social Determinants of Health Assessment	Social and Community Context	NO	1.00	6.00	
Provider Participation	Steering committee	YES	6.00	0.00	

SUMMARY

QIAs will input program information within this section.

Data Sources pulled: 6/22/2017
Performance Period: October - December 2016

Test Community and Clinical Care (C3)

