Minnesota Food Charter Network
Shared Measurement Action Team

Phase 1 Working Paper: Preliminary Recommendations & Next Steps: Spring 2018
Introduction to the Minnesota Food Charter

The Minnesota Food Charter (http://mnfoodcharter.com/) is a roadmap to healthy, affordable, and safe food for all Minnesotans. It was developed through a broad-based public process, in which thousands of Minnesotans provided input. See Figure 1 for a review of the input process.

As a result of this robust input process, five themes emerged as challenges to accessing healthy, affordable and safe food in Minnesota: Food Affordability, Food Availability, Food Accessibility, Food Skills, and Food Infrastructure. The Minnesota Food Charter defines each theme as follows:
Food Affordability:
People can buy most or all of the healthy foods they want with the money they have available.¹

Food Availability:
There are an adequate number of convenient food sources, offering a sufficient number and variety of healthy options in a community.²

Food Accessibility:
Sources for healthy food are easy to get to at a manageable distance from home or work, using affordable and convenient personal or public transportation.³

Food Skills:
Growing food; planning, selecting, and budgeting for healthy food; preparing safe, healthy food from scratch; trying new foods; and understanding the food system, including agriculture and cultural dimensions of food.⁴

Food Infrastructure:
Food infrastructure is the underlying physical, policy, and organizational structure needed for our food supply’s operation, services, and facilities.⁵

Food Environment:
This is not one of the emergent themes documented in the Minnesota Food Charter, but is a term used to collectively refer to the themes of Food Affordability, Food Availability, and Food Accessibility. These three themes are what create the conditions for consumers to purchase food.

Within each theme, this report describes challenges faced by Minnesotans and strategies to tackle these challenges. Many of the challenges described emphasize the cultural and structural barriers that Minnesotans face on a daily basis. Proposed strategies focus on changing policies, systems, and environments supporting the Minnesota food system infrastructure, as well as increasing food skills of Minnesotans.

The Minnesota Food Charter Health Equity Guide takes the challenges described in the Minnesota Food Charter one level deeper, emphasizing the structural barriers that are the root causes of lack of access to healthy, safe, and affordable food, including income, transportation, housing, language, and illness. Further evidence for these challenges can be found in the Minnesota Department of Health’s 2014 Legislative Report, entitled Advancing Health Equity in Minnesota. This report describes how in Minnesota, people of color and American Indians, people with disabilities, people living in poverty, and members of the LGBTQ community have less opportunity

for health, less access to affordable, safe, and healthy food, and experience worse health outcomes. Food can also be a unifying change agent to advance health equity in communities. In the Minnesota Food Charter Health Equity Guide, Vayong Moua, Health Equity Advocacy Director at the Center for Prevention at Blue Cross Blue Shield of Minnesota, notes, “For coalitions and organizations striving to advance health equity, food can be a unifier, and a powerful way to make change.”

**Minnesota Food Charter Network: Shared Measurement Action Team (SMAT)**

The [Minnesota Food Charter Network](http://www.health.state.mn.us/divs/che/reports/ahe_leg_report_020114.pdf) is the connections between people, organizations, and communities that support and implement the food charter strategies. It was created in tandem with the Minnesota Food Charter. The Network is guided by the input from local communities implementing the strategies within the community as well as action teams focused on achieving the charter’s vision of providing affordable, safe, and healthy food where people live, work, learn, and play. Action teams are teams focused on advancing specific aspects of the Minnesota Food Charter. The Shared Measurement Action Team (SMAT) is one such Action Team, which is focused on providing leadership and guidance around monitoring the changes in the Minnesota Food System.

**Charge & Accomplishments**

Between August 30th, 2016 and January 15th, 2018 SMAT held 15 meetings and accomplished the following:

- Recruited a team of 11 members
- Identified primary and secondary audiences of the documents developed by the SMAT
- Developed a draft Theory of Change for the 5 themes of the Minnesota Food Charter
- Proposed indicators related to Food Availability, Food Accessibility, and Food Affordability that would help to monitor changes in the Minnesota food system
  - SMAT decided to only focus on 3 of the 5 themes for the first year
- Developed recommendations for next steps
- Explored platforms for communicating and sharing data
- Presented the shared measurement process and draft indicators at the American Public Health Association Conference in Atlanta Georgia, in October 2017

**2016-2017 SMAT Members**

- **Allison Anfinson**
  Senior Healthcare Analyst, Center for Prevention at Blue Cross & Blue Shield of Minnesota
- **Kristen Boelcke-Stennes**
  EAESD Research Unit, Minnesota Department of Human Services
- **Fernando Burga**

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Abby Gold
Department of Public Health, North Dakota State University

Tim Jenkins
Produce Safety Program, Minnesota Department of Agriculture

Mary Marczak
Urban Family Development and Evaluation, University of Minnesota Extension

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Amy Shanafelt
Clinical and Translational Science Institute, University of Minnesota

Di Vang
Minnesota Department of Human Services

Ann Zukoski
Office of Statewide Health Improvement Initiatives, Minnesota Department of Health
How to Use This Paper

Preliminary recommendations are summarized in this document. The SMAT plans on continuing to discuss these and other measures to include in a measurement strategy. This report can be used as a catalyst for discussion about metrics that best indicate and monitor changes in the food system.

Limitations and a Call to Action

Advancing health equity was a consideration in all SMAT discussions of metrics. Health disparities and health equity are complex and multifaceted constructs. SMAT was unable to identify robust metrics to capture health equity using public data currently available in Minnesota. This limitation creates a caveat within the SMAT recommendations for measuring the food system changes because it may exclude unmeasured populations.

In addition to acknowledging a lack of a robust metric(s) that capture equity in the food system, the SMAT also understands that using a deficit lens to capture health inequities can perpetuate inequities. The SMAT discussed the importance of including community assets and strengths, such as community member empowerment and leadership, in measurement conversations. Similarly, statewide data do not exist that monitor community assets and strengths. The ideal surveillance system to monitor the food system would incorporate metrics that capture health inequities along with community assets. This gap represents an opportunity for future exploration and development by food system researchers and the field of public health more broadly.

The following report represents the current state of the evaluation in measuring food systems, while also attempting to uncover health inequities and highlight community assets. These preliminary recommendations represent a first attempt to uncover metrics that describe the state of the food system in Minnesota. They can serve as a springboard for discussion and should be refined over time as metrics advancing health equity in the food system are developed.
Theory of Change

The development of the theory of change was the first step in establishing indicators to monitor changes in the Minnesota food system as related to the Minnesota Food Charter. A theory of change describes the conditions and processes that have to occur to achieve a long-term goal. The SMAT developed this theory based on the stated goal of the Minnesota Food Charter, “…to have affordable, safe, and healthy food where people live, work, learn, and play” and on each theme’s strategies. The framework used was based on the Aspen Institute’s “The Community Builder’s Approach to Theory of Change: A Practical Guide to Theory of Change Development.” See Figure 2 for the theory of change proposed by SMAT during 2016-2017. Appendix A also has the theory of change.

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This theory of change is best read from right to left. The goal of the Minnesota Food Charter is listed on the right, middle side of the page. To the left are the themes in the Minnesota Food Charter, as these are the factors that influence the ability to accomplish the goal. Food infrastructure is listed at the top of the theory of change to indicate that the underlying policies, systems, and environments created by food infrastructure impact all of the other factors that make accomplishing the goal possible.

One factor that was not listed as a theme in the Minnesota Food Charter is consumer demand. The SMAT decided that consumer demand is an essential factor to accomplishing the Minnesota Food Charter’s goal. Without desire from consumers to have a food system that provides affordable, safe, and healthy food where they live, work, and play, building such a food system would fail. Therefore, the SMAT decided that consumer demand was an essential component in the theory of change.

To the right of the goal is the accountability ceiling, which are factors outside the scope of what the Minnesota Food Charter can accomplish. For example, childhood and adult obesity might be impacted by working on the Minnesota Food Charter strategies, but the factors that influence obesity, such as physical activity, are not addressed in the Minnesota Food Charter. Another example is poverty; an issue greater than the food system. Addressing strategies listed in the Minnesota Food Charter may impact poverty, but issues such as housing and income are outside of the scope of the Minnesota Food Charter. The SMAT did not include factors outside of the purview of the food charter as indicators for monitoring the food system.

**Indicators**

**Criteria for Proposing Indicators**

Before selecting indicators, the SMAT discussed what criteria to use in order to select the indicators. The SMAT chose to use the criteria for indicators described in the “From Vision to Action: Additional Information on the Culture of Health Measures” report, by the Robert Wood Johnson Foundation as a starting point. This report recommended two levels of criteria: 1) Individual Indicator Level Criteria and 2) Entire Set of Indicators Criteria. The Individual Indicator Level Criteria focuses on each indicator as a distinct entity, while the Entire Set of Indicator Criteria focuses on all of the indicators at one time. There was also group consensus around selecting only 1 to 3 indicators for each theme.

Below is criteria the SMAT modified from the Robert Wood Johnson Foundation’s report to select the proposed indicators.

**Individual Indicator Criteria**

*Not in any order*

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• Ability to monitor change
• Feasibility to collect data
• Potential to lead to an index
• Accessibility/understandable by a range of audiences
• Relevant to many areas
• Preference for secondary data
• Specific to Minnesota
• Relevant statewide and locally
• Longevity – ability to contribute to a long term surveillance system
• Aligns with the Theory of Change and Minnesota Food Charter strategies
• Can be disaggregated to capture health disparities

**Entire Set of Indicators Criteria**

*Not in any order*

• Mix of both resilience and risk factors
• Balance between long-term and short-term indicators/change
• Collectively tell a comprehensive story

**Selection of Proposed Indicators for Food Environment Factors**

To focus the scope of work in 2016 to 2017, the SMAT decided to focus on proposing indicators for the three themes within the Food Environment: Food Affordability, Food Availability, and Food Accessibility. Figure 3 is the Food Environment section of the [Theory of Change](#). The SMAT divided into three groups and assigned one factor to each group. During meetings, each group extensively brainstormed and discussed potential indicators based on literature and their knowledge. Groups presented their ideas to the entire team for continued discussion. Indicators were selected using consensus decision making and the individual indicator criteria. Some of the proposed indicators did not have systematically collected secondary data sources, highlighting that there are gaps in the current data landscape for food systems (see [call to action](#) section).
Food Affordability

The Minnesota Food Charter defines Food Affordability as people being able to buy most or all of the healthy foods they want with the money they have available and defines success as healthy food for all people regardless of income.\textsuperscript{10}

The factors identified to impact food affordability include (see Figure 4):

- Resources to purchase food
- Infrastructure
- Incentives and programs to help with food purchases
- Income to purchase food

**Definitions**

**Incentives and Programs:** Incentives and programs assist people to obtain food. Examples of incentives and programs include the Minnesota Food Assistance Program (MFAP), Emergency Food Assistance Program (TEFAP), Supplemental Nutrition Assistance Program (SNAP), Women, Infant, and Children (WIC) program, Child and Adult Care Food Program (CACFP), National School Lunch Program (NSLP), farmers market incentive programs, food shelves, and Meals on Wheels.\(^{11}\)

**Infrastructure:** As defined in the Minnesota Food Charter, food infrastructure is the underlying physical, policy, and organizational structure needed for our food supply’s operation, services, and facilities.\(^{12}\)

**Income to purchase food:** This is the amount of money that people have available to purchase food. The higher your income level, the smaller percent of the budget is spent on basic needs. Low-income families are estimated to spend about 15% of their budget on food, compared to about 13% and 11% for middle and high-income families, respectively.\(^{13}\)

**Resources to obtain food:** Resources to obtain food include having resources, such as money, financial aid, or program assistance to facilitate purchasing healthy food. Examples of resources to obtain food include WIC fruit and vegetable vouchers; accepting SNAP at farmers market, market bucks usage; and SNAP redemption. In 2016, WIC served 42% of all infants born in Minnesota and every year, Minnesota WIC distributes over $10.1 million worth of vouchers for fruit and vegetables.\(^{14}\) In early 2018, 96 farmers markets accepted SNAP for payment.\(^{15}\)

**Food Affordability Indicators**

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**Indicator 1:** County Percent Adult and Child Food Insecurity

Food insecurity can be defined as a household that does not have enough food for each individual to live an active, healthy life. Families, including working families that do not qualify for food assistance, may have to choose between paying the heating bills or purchasing groceries. Food insecurity can have an impact on individuals' health and the healthy development of children. Inconsistent access to food and consumption of poor quality/low nutritive food can have a direct impact on health, and has been associated with poor health outcomes in children. Factors that predict food insecurity include poverty, unemployment, household assets, individual demographics and local food prices. Feeding America has developed county level predictions of food insecurity for all persons and children only, using information from the U.S. Census, and local market basket food costs.

**Data Source:** Feeding America; [http://map.feedingamerica.org/county/2016/overall/minnesota](http://map.feedingamerica.org/county/2016/overall/minnesota)

**Indicator 2:** County Percent of Individuals Receiving SNAP out of Total Individuals Income Eligible for SNAP

The Supplemental Nutrition Assistance Program (SNAP) is a federal program, administered in Minnesota by counties and local agencies. The SNAP benefit to individuals is provided through a debit card that can be used to buy food in stores, farmers markets and senior dining sites that accept SNAP transactions. The monthly benefit is intended to supplement a household's food budget and does not cover all food expenses. In Minnesota, persons with incomes below 165 percent of the federal poverty level (FPL) are income eligible to receive SNAP. One million Minnesotans are estimated to be income eligible for food assistance but not all are receiving SNAP benefits. When households receive SNAP benefits they are less likely to be food insecure and this is particularly true for families with children. Providing food assistance that improves diet quality remains an important public health goal. SNAP benefits increase individuals ability to purchase healthy foods.

**Data Source:** Minnesota Department of Human Services

**Indicator 3:** County Percent of WIC Vouchers Redeemed

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) is a federal program that is administered by county public health clinics in Minnesota. Pregnant women, breastfeeding women, and children under the age of five in households with incomes below 185 percent of the federal poverty level are eligible for vouchers that can be redeemed at many grocery stores for fruits vegetables.

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whole grains, dairy, lean protein and other healthy foods. In rural, low-income Minnesota communities, WIC has also been identified as a facilitator of healthy eating and helpful for affording healthy food.\textsuperscript{22,23}

\textbf{Data Source:} Minnesota WIC Information Systems:  
http://www.health.state.mn.us/divs/fh/wic/localagency/reports/foodbenefits/annual/2016wcounty.pdf \textsuperscript{24}

\textbf{Factors to Monitor:}
In addition to the food affordability indicators proposed, the SMAT proposes to monitor several additional factors that impact food affordability including:

- Minimum wage
- Market basic price of food
- Local cost of food

\section*{Food Availability}

The Minnesota Food Charter defines \textit{food availability} as an adequate number of convenient food sources, offering a sufficient number and variety of healthy options in a community and defines success as, “a diverse variety of healthy food are more available and unhealthy foods are less available where people work, live, learn and play.”\textsuperscript{25}

The factors identified to impact food availability include (see Figure 5):

- Community Nutrition Environment
- Consumer Nutrition Environment
- Infrastructure

\begin{thebibliography}{99}
\end{thebibliography}
Figure 5: Food Availability Theory of Change

Definitions

**Community Nutrition Environment:** The type and location of food outlets where people can obtain food. Food outlets include places such as stores, restaurants, farmers markets, and schools.

**Consumer Nutrition Environment:** What consumers encounter while in a food outlet. This includes factors such as the product, price, placement, and promotion of food available in these food outlets.

**Infrastructure:** As defined in the Minnesota Food Charter, food infrastructure is the underlying physical, policy, and organizational structure needed for our food supply’s operation, services, and facilities.

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Food Availability Indicators

Community Nutrition Environment:

**Indicator 1:** County percentage of food retail locations with produce
Number of food retail locations with produce per county per 1,000 people
Metric created from the following:
- Number of Farmers markets ([Minnesota Grown](https://www.mngrown.org/))
- Number of CSAs ([Minnesota Grown](https://www.mngrown.org/))
- Number of Supermarkets/grocery ([USDA Food Environment Atlas; definitions](https://www.ars.usda.gov/ncahd/nea/foodenv/))
- Number of Supercenters ([USDA Food Environment Atlas; definitions](https://www.ars.usda.gov/ncahd/nea/foodenv/))
- Number of Co-ops ([National Co-op Grocers; no downloadable data](http://www.co-ops.org/))

**Limitations:** Measuring food availability at a county level can perpetuate geographic disparities because neighborhood level changes may or may not be evident at the county level. If the county level rate changed, it would be unclear as to where specifically that change happened and thus, community members may not see their progress reflected in this indicator. It would also be helpful for county level officials to be able to identify areas lacking in food outlets, so that action steps could be taken to ameliorate this problem. Furthermore, this indicator does not include all types of cultural food outlets, such as Somali and Hmong markets. See the [call to action](#) statement for more about applying a strong equity lens to this indicator.

**Potential Data Source:**
Based on the limitations mentioned above, one data source that could be used is Policy Map through the University of Minnesota server, which contains the location of food outlets, by specific type, at the zip code level. This data is available from Trade Dimensions, and may need to be purchased. This data still may not contain all types of food outlets, such as cultural food outlets. Policy map is available to the public, but the public version does not include the data that proposed for this indicator.

Consumer Nutrition Environment

**Indicator 1:** None Identified

**Primary Data Collection:**
Currently, there are no secondary data sources available. However, primary data collection tools are available.

- The Nutrition Environment Measurement Survey (NEMS)

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29 [https://www.policymap.com/](https://www.policymap.com/)
These observational tools assess the produce, price, and quality of food available in a food outlet. There are 4 types of food outlets that NEMS has assessments for: 1) Restaurants (R); 2) Stores (S); 3) Corner Stores (CS); 4) Vending Machines (V).

The NEMS also has a Perceived Nutrition Environment Survey to measure individual’s perceptions of the food environment. This is different from the other NEMS tools, as the individual completes this survey versus an objective observer.

- **MN-EATs**
  - The Office of Statewide Health Improvement Initiatives of Minnesota Department of Health has developed the MN-EATs, which is a suite of tools that helps to assess the food retail environment in the community.
  - This suite of tools contains assessments of the following retail venues:
    - Corner/convenience stores
    - Grocery stores
    - Restaurants, including kids menus
  - Using this suite of tools to produce an indicator would require local public health agencies to conduct these assessments as a requirement for the healthy eating strategy of the Statewide Health Improvement Partnership (SHIP) grant.

- **Risk Level of Food Outlet**
  - All grocery stores, corner stores, restaurants, and cafes are categorized according to the food they serve and how they prepare it. This categorization is called “Risk Level” and is used by the Minnesota Department of Agriculture (MDA), the Minnesota Department of Health (MDH) and local agencies at the city and county level.
  - Since fresh foods are at a higher risk of causing a food-related illness, the higher the “Risk Level”, the more fresh foods are available. For example, high risk restaurants/cafes generally cook from scratch and use fresh produce. Medium risk restaurants/cafes may heat and serve food only. Low risk restaurants/cafes may only sell pre-packaged foods. This data does not indicate healthfulness of the food, but could help to better illustrate the environment of the food outlet.
  - This indicator would require a collaboration between MDA, MDH, and local agencies at the city and county level and could involve changing the protocols that food inspectors follow.

- **National Collaborative on Childhood Obesity Research (NCCOR): Measures Registry**
  - As of April 2018, the NCCOR Measures Registry contains 97 environmental observations to assess the food environment, including the NEMS tools.

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Tools available range from vending machines on college campuses, to grocery store surveys. Many tools were developed in an urban setting and may or may not apply to rural contexts.

- This site also provides the validity and reliability of tools, if available.

**Food Accessibility**

The Minnesota Food Charter defines food accessibility as “sources for healthy food are easy to get to at a manageable distance from home or work, using affordable and convenient personal or public transportation” and has described success as:

- Stores selling healthy food are located near all communities
- Cities and towns provide adequate, safe options to bike or walk to places where they can buy or grow healthy food
- Communities offer widely available, and more affordable public, private, and non-profit transportation and delivery options to make it easier to get healthy food

The factors identified to impact food accessibility include (see Figure 6):

- Local Infrastructure
- Transportation Systems
- Policy
- Distribution

*Figure 6: Food Accessibility Theory of Change*

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Definitions

**Local Infrastructure:** The structural design of a city or town, including the placement of roads, bridges, walking and biking paths, commercial areas, and residential areas.

Municipal planning of local infrastructure facilitates various, easier ways to access healthy food. Examples include having a bus stop or bike lane outside of a supermarket to allow access for bussers and bikers; designing a crosswalk to allow foot traffic across busy streets; or designing a food delivery service for individuals who have limited transportation options. In rural areas, this means having access to rural transportation, reliable vehicles, rural grocery stores, and convenience stores that sell healthy food. Local planning, comprehensive planning, zoning, food safety, and building laws, codes, or policies can reduce or reinforce structural barriers that prevent our food supply from being as healthy, equitable, affordable, and resilient as we would like it to be.

**Transportation Systems:** Systems set up to support travel from one area to another. This includes systems such as public transportation, dial a ride services, and infrastructure that supports walking and biking.

**Policy:** Policies related to local infrastructure can include laws and regulations such as zoning laws, public transit policies, and food safety regulations. These policies can reduce or reinforce structural barriers to affordable, safe, healthy food system.

**Distribution:** The Food and Agriculture Organization of the United Nations defines food distribution as “…the post-harvest activities that happen to food such as processing, transportation, storage, packaging and marketing of food…”34

Food Accessibility Indicators

**Indicator 1:** County percentage of people living in a food desert

A food desert is defined as an area where there are no grocery stores or supercenters within 1 mile of neighborhood Census block groups (urban areas) or 10 miles of neighborhood Census block groups (rural areas), it is a low income area (defined as where 40% of the households are 200% of the poverty level), and there is low access to personal vehicles. A 2009 Congressional report used the USDA food desert measure as a proxy for food access.35

**Limitations:** Literature suggests that low-income residents often shop outside of their neighborhoods to purchase food, suggesting that food deserts may not accurately describe food access, since they do not

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adequately consider transportation systems.\textsuperscript{36} Food desert calculations only take supermarkets and supercenters into consideration as food retail outlets. There are many other food retail outlets, such as corner stores and culturally specific food outlets that are not taken into consideration. Additionally, the term “food deserts” is deficit based, which can lead to a negative portrayal of this area. Through community input, Baltimore has proposed the term “Healthy Food Priority Areas” to be used instead of “Food Desert”.\textsuperscript{37} Another metric that may account for some of these limitations, such as retail leakage (defined as the amount of retail sales lost to stores in another geographic area), is the Limited Supermarket Access Status data, which is available on Policy Map.\textsuperscript{38} Furthermore, another emerging concept, “Food Swamps,” defined as “areas with a high-density of establishments selling high-calorie fast food and junk food, relative to healthier options,” also plays a role in food accessibility.\textsuperscript{39}

**Data Source:** USDA Food Desert Map


- Use the “LI & LA 1 + 20 miles” and the “LI & LA using vehicle access” layers of the food desert map. LI is low income and LA is low access.


Recommendations

The Shared Measurement Action Team has identified four recommendations to advance the measurement of the Food Charter Network.

**Recommendation 1:** Hire a Research Director

The Minnesota Food Charter Network would like to demonstrate how network activities relate to both the implementation of food charter strategies and potential changes observed in the Minnesota food system. One person is needed coordinate evaluation efforts, aligning all evaluation activities to help create a coherent story about the “impact” and “magnitude” of the efforts related to Minnesota Food Charter Strategy Implementation and the Minnesota Food Charter Network.

The SMAT does not have the capacity to gather, analyze, monitor, and report on the data collected through a shared measurement system. This level of work requires a 1.0 FTE staff position that would be responsible for shared measurement and evaluation of the Network. Appendix C contains a draft position description with recommended qualifications.

**Recommendation 2:** Invest in an online data management platform

To make the indicators accessible to all Minnesotans, the SMAT recommends that the Network invest in an online, dynamic platform to display the indicators and potentially collect and map data. The SMAT spoke with individuals from Minnesota Compass, Community Commons, and InsightFormation. Appendix D contains a summary of discussions between the SMAT and a representative from each platform. After all indicators have been identified, we also recommend working with a web designer to help create the interface on the website so that it can be easily navigated and accessed by the public.

**Recommendation 3:** Continue communication between the Minnesota Food Charter Network Evaluation Project team and Shared Measurement Action Team

The SMAT and the MFCN Evaluation project team have overlapping members and goals. Thus, it is the recommendation of this team that they continue to work together, to align work and reduce duplication of efforts.

**Recommendation 4:** Work with Public Health Law

Local, state, and federal policy that directly or indirectly effect the food system need to be monitored through both primary and secondary data collection. The Public Health Law Center is a potential partner to help the Minnesota Food Charter Network track policies that could affect the food environment over time. The Public Health Law Center has collaborated with other national leaders in food policy to develop the Healthy Food Policy Project (HFPP). “The HFPP identifies and elevates local laws that seek to promote access to healthy food, and also contribute to strong local economies, an improved environment, and health equity, with a focus on socially disadvantaged and marginalized groups. HFPP is a four-year collaboration of the Center for Agriculture and Food System and the Rudd Center for Food Policy and Obesity. This project is funded by the National Agricultural
Next Steps

Next steps for the SMAT in 2018 include:

1. Recruit and onboard new members to the SMAT
2. Identify indicators for Food Infrastructure
3. Continue to discuss and think about primary data collection, data management, data sharing, and communication
## Appendix B. Detailed Information for Each Indicator

### Food Affordability

County Percent of Food Insecurity in the Adult and Child Population

*See page 15*

<table>
<thead>
<tr>
<th>Indicator Information</th>
<th>Description</th>
</tr>
</thead>
</table>
| Population and unit of analysis | **adults:**  
Population: Number of adults in food insecure households per county  
Unit: Total number of adults per county  

**children:**  
Population: Number of children in food insecure households per county  
Unit: Total number of children in the county  |

Brief evidence-based rationale for inclusion of indicator for this domain


- Schanzenbach DW, Nunn R, Bauer L, Mumford M. Where Does All the Money Go: Shifts in Household Spending Over the Past 30 Years. The Hamilton Project.  

<table>
<thead>
<tr>
<th>Data source(s) used to create this indicator</th>
<th>Data sources: 1) weighted information from the Food Security portion of the Community Population Survey; 2) weighted data from the U.S. Census American Community Survey (ACS) – county level poverty, median income, home ownership, race and ethnicity; 3) Bureau of Labor Statistics (BLS) unemployment rate; 4) local costs of market basket.</th>
</tr>
</thead>
</table>
| How are data sources accessed?            | Food Insecurity Report Available Annually from Feeding America.  
http://map.feedingamerica.org/county/2016/overall/minnesota |
| How is the indicator created from the data source(s)? | The Current Population Survey (CPS) survey contains questions that directly ask families about their food security status. This survey cannot produce local insecurity measures at the local level. The Feeding America methodology takes factors that predict food insecurity on the survey and uses those to predict food insecurity at the county level for Minnesota. Information on these factors is obtained from the ACS, BLS, and local market-basket food costs and weighted according to the county population count. More detailed information on this methodology is available here:  
| Year of data source(s) used to develop indicator. Most recent year of data collected; intervals of data collection? | 2017 report utilizes 2015 data with some exceptions – for detailed information on those exceptions see  
## County Percent of Individuals Receiving SNAP who are Income Eligible for SNAP

*See page 15*

<table>
<thead>
<tr>
<th>Indicator Information</th>
<th>Description</th>
</tr>
</thead>
</table>
| Population and unit of analysis | Population: Number of individuals receiving SNAP per county  
Unit: Number of individuals who appear income eligible for SNAP based on Census data |
<p>| Data source(s) used to create this indicator | Minnesota Department of Human Services |
| How are data sources accessed? | Data provided by the Minnesota Department of Human Services. As of May 2018, the contact person is Kristen Boelcke-Stennes, <a href="mailto:Kristen.boelcke-stennes@state.mn.us">Kristen.boelcke-stennes@state.mn.us</a>. |
| How the indicator is created from the data source(s)? | A percentage is derived through an annual unduplicated count of individuals receiving SNAP in each county over a denominator of count of persons at incomes of 150% of the federal poverty level in each county. Families with children, seniors and disabled individuals are eligible for SNAP at incomes up to 165% of the federal poverty level. Able bodied single adults are also eligible for a limited time period. |</p>
<table>
<thead>
<tr>
<th>Indicator Information</th>
<th>Description</th>
</tr>
</thead>
</table>
| Population and unit of analysis | Population: Number of WIC cash vouchers redeemed per county  
Unit: Total number of WIC cash vouchers distributed per county |
| Data source(s) used to create indicator | Minnesota WIC Information System |
| How is indicator created from the data source(s)? | Number of vouchers redeemed by county / Total number of vouchers issued by county |
| Year of data source(s) used to develop indicator. Most recent year of data collected; intervals of data collection? | 2016. Data is collected throughout the year and is reported annually. |

**County Percent of Women, Infants and Children (WIC) Vouchers Redeemed**

*See page 15*
## Food Availability

### County Percent of Food Retail Locations with Produce

*See page 18*

<table>
<thead>
<tr>
<th>Indicator Information</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population and unit of analysis</td>
<td>Population: Number of food retail locations with produce per county Unit: Per 1,000 people in each county</td>
</tr>
</tbody>
</table>
| Data source(s) used to create indicator | Locations for Food Retail with produce  
- Number of Farmers Markets (currently 188 statewide; [Minnesota Grown](#))  
- Number of CSAs (currently 85 statewide; [Minnesota Grown](#))  
- Number of Supermarkets/grocery ([USDA Food Environment Atlas; definitions](#))  
- Number of Supercenters ([USDA Food Environment Atlas; definitions](#))  
- [Number of Co-op](#) - no downloadable data |
| How are data sources accessed? | CSA and Farmers Market data can be found on Minnesota Grown and is mapped. Supermarket/grocery & Supercenter retail data can both be mapped, and downloaded from the USDA Food Environment Atlas. |
| How is this indicator created from the data source(s)? | We propose creating an index that summarizes all the locations for food retail with produce. This is something to be developed with a statistician. |
| Year of data source(s) used to develop indicator. Most recent year of data collected; intervals of data collection? | MN Grown: unknown  
USDA atlas: 2014  
Co-ops: unknown |
# Food Accessibility

## County Percent of Individuals Living in Food Deserts

*See page 21*

<table>
<thead>
<tr>
<th>Indicator Information</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population and unit of analysis</td>
<td>Population: Number of people living in a food desert in each county Unit: Per 1,000 people in each county</td>
</tr>
<tr>
<td>How is an indicator created from the data source(s)?</td>
<td>We will use the “Li &amp; LA 1 + 20 miles” and the “LI &amp; LA using vehicle access” layers of the food desert map. Li = Low income; LA = Low Access. We recommend working with a statistician to create this variable.</td>
</tr>
<tr>
<td>Year of data source(s) used to develop indicator. Most recent year of data collected; intervals of data collection?</td>
<td>Estimates in the Atlas for 2015 are based on a 2015 list of supermarkets, the 2010 Decennial Census, and the 2010-14 American Community Survey (ACS). The estimates for 2010 are based on a 2010 list of supermarkets, the 2010 Decennial Census, and the 2006-10 ACS.</td>
</tr>
</tbody>
</table>
Appendix C. Research Director/Manager Job Description - Draft

CONTEXT
The Minnesota Food Charter serves as roadmap for increasing access to healthy food for all Minnesotans. The Food Charter outlines five major food system areas: skills, affordability, availability, accessibility, and infrastructure.

SCOPE OF WORK
Facilitate and manage the data infrastructure, collection, storage, analysis, and communication of the evaluations of the Minnesota Food Charter Network, Minnesota Food System, and Minnesota Food Charter Strategy implementation.

Qualifications.
- Master’s degree – Public Health, Epidemiology, Social/Behavioral Sciences, or related degree
- 4+ years of experience with mixed methods social science research and evaluation methods
- Demonstrated experience tailoring messages to specific audiences
- Strong facilitation and presentation skills before multiple, diverse audiences
- Experience with complex project management and stakeholder management and collaborating with a multidisciplinary team
- Ability to communicate complex issues to a variety of audiences
- Advanced strategy and planning skills, including an ability to think strategically on both organizational and systemic levels over multi-year horizons
- Strong data acumen and ability to oversee complex shared-measurement systems
- Facility with applications common in social science research, analysis, and dissemination (e.g., SPSS, Qualtrics, Microsoft Office Suite, and online data platforms)
- Skill using both primary and secondary data.
- Ability to work independently with minimal direct supervision
- Comfortable with ambiguity and ability to thrive in a fluid, entrepreneurial environment

Planning.
- Develop and implement a work plan to produce annual baseline and results reports.

Baseline and Results Reports.
- Develop initial baseline report, including collecting and analyzing data, drafting text, and identifying key gaps in conjunction with Steering Committee
- Negotiate and draft data sharing agreements with relevant institutions and facilitate data collection as needed.

Data to Drive Communications.
- Deliver data content that can be used for group seminars, forums and public communications and presentations.
Appendix D. Data and Information Sharing Platforms

Development of Online Platform Recommendations

Insightformation is a Minnesota organization. President, Bill Barberg gave a compelling overview to SMAT on how their system could serve the Food Charter Network. Discussions have also occurred between Liana Schreiber, Jared Walhowe and Community Commons which proved to demonstrate their platform as a viable and promising option for the network as well.

Insightformation and Community Commons are well versed and knowledgeable about the Minnesota Food Charter and Minnesota Food Charter Network model, philosophy, approach, and vision and food systems work nationally. The organizations have collaborated with each other and have an existing relationship which means they could each potentially have a role in serving the Minnesota Food Charter Network’s data management and sharing needs.

Jared Walhowe, Liana Schreiber, and Tim Jenkins created a comparison of the two organizations found at the link below but further investigation is needed and that would be best achieved through direct contact with these parties.

Comparison: Insightformation and Community Commons
https://docs.google.com/spreadsheets/d/1i4wmpkczzqshicmFjprqgOzgYOLJH2lWsx0RgXO19A/edit#gid=0

Insightformation Presentation to SMAT by Bill Barberg
https://drive.google.com/open?id=17n_UKIJWhWa-POjBHIToeAXs_aD3NkmLS

Jared Walhowe and Tim Jenkins also met with Allison Liuzzi, Project Director of Minnesota Compass who would like to meet with Minnesota Food Charter Network representatives to discuss incorporating Food Charter indicators into the set of Minnesota Compass indicators and also discuss Food Charter Network representation in Minnesota Compass advisory activities.

Community Commons

https://www.communitycommons.org/about/

Community Commons is a place where data, tools, and stories come together to inspire change and improve communities. The Community Commons provide public access to thousands of meaningful data layers that allow mapping and reporting capabilities so people can thoroughly explore community health.

As a mission driven organization, the technology and resources that the Community Commons develop directly provide innovation for the future. Community Commons aims to make custom tools publicly available whenever possible and the organization’s partners understand and support this public-good mission.
The goal of Community Commons is to increase the impact of those working toward healthy, equitable, and sustainable communities. Community Commons believe this happens when the Community Commons users access our tools to gain a deeper understanding of community assets and opportunities and then use data visualizations to convey that knowledge through partnerships and collaboration. The Community Commons works best when those collaborations then create and implement plans of action and return the knowledge of what works and what doesn’t back to the greater Community Commons’ community.

This is why Community Commons was created — to bring change-makers together to connect with thought-leaders and peers, share stories and strategies, and use the latest technology and tools to make lasting change.

Contact: Institute for People, Place, and Possibility (IP3)
Address: 501 Fay Street, Suite 206 Columbia, MO 65201
Phone: 573-442-2307
Email: support@communitycommons.org

Insightformation

https://www.insightformation.com/

Insightformation’s award-winning InsightVision strategy management software enables organizations and multi-stakeholder coalitions to articulate, communicate, and improve performance by translating strategy into specific and measurable prioritized objectives and actions. InsightVision is a secure, cloud-based, easy-to-use, effective, and affordable shared measurement and collaboration platform. In addition, Insightformation works with other high-value technologies that can support coalitions’ work to address complex social issues.

- Improve collaboration and team engagement: Simplify the complex task of total community cooperation; share measurement systems, mutual objectives, and communications that make it easy to coordinate collective impact.
- Harvest shared wisdom for Collective Impact: Our user-friendly interface allows all participants to share progress and insights, provide transparency and accountability, and maximize stakeholder engagement to drive progress.
- Reduce waste, redundancy, and fragmentation: Track strategy effectiveness easily and in real time with our strategy management system.
- Empower strategic plans to meet evolving challenges: Our easily adaptable Strategy Maps make it simple to modify your plan of action as you see fit, ensuring you meet unforeseen obstacles head on.

Alignment: With interactive Strategy Maps, contextual project information, and presentation ready views, your organization is on the fast track to the outcomes you deserve.

Scorecard: With an agreed upon system for keeping score, you can rest easy knowing the status of the priority objectives and actions for your organization or community coalition.

Line-of-Sight: Community Commons is a place where data, tools, and stories come together to inspire change and
improve communities. We provide public access to thousands of meaningful data layers that allow mapping and reporting capabilities so you can thoroughly explore community health.

As a mission driven organization, the technology and resources that we develop directly provide innovation for the future. Insightformation aims to make custom tools publicly available whenever possible and the organization’s partners understand and support this public-good mission.

Contact:
Bill Barberg
Email: bill.barberg@insightformation.com
Business: 763-331-8361
Mobile: 612-719-9700

Minnesota Compass

http://www.mncompass.org/

Minnesota Compass is a social indicators project that measures progress in Minnesota, its seven regions, 87 counties and larger cities. Compass tracks trends in topic areas such as education, economy and workforce, health, housing, public safety, and a host of others.

Compass gives everyone in Minnesota – policymakers, business and community leaders, and concerned individuals who live and work here – a common foundation to identify, understand, and act on issues that affect communities. It does this by:

- Providing unbiased, credible information.
- Tracking trends and measuring progress on issues that impact Minnesotans’ quality of life.
- Identifying disparities by including trend data by race, age, gender and income whenever possible.
- Providing additional resources for addressing issues.

Contact: Allison Liuzzi, Project Director, allison.liuzzi@wilder.org. Allison leads Minnesota Compass. She also works on related projects, including the STEM section of Minnesota Compass, North Dakota Compass, South Dakota Dashboard, and Black Hills Knowledge Network.

SMAT members, Jared Walhowe and Tim Jenkins, met with Allison and she’s very interested in collaborating with the Minnesota Food Charter to create a Food Charter related indicator to incorporate into the MN Compass set of indicators.
Appendix E. List of Discussed Indicators

The Shared Measurement Action Team discussed many indicators and choose indicators based on the Robert Wood Johnson criteria presented above, with indicators having secondary data available at multiple levels being preferred. The following are other indicators that we discussed, but did not meet criteria for Food Availability, Affordability, or Accessibility.

- **Number of people in poverty by county**
- **County unemployment rates**
- **Cost of Living Calculator**
- **Stores with WIC - whole state**
- **Stores with SNAP - whole state**
- **Stores with SNAP - whole state**
- **Farmers markets with SNAP whole state**
- **Percent of SNAP Program Access by County**
- **Income eligible population receiving services in federal food related programs**
- **HEAH vouchers redeemed**
- **Child Care CACFP Reimbursement (County and City)**
- **State or local minimum wage**
- **Unemployment/underemployment by county**
- **Number Households living in poverty**
- **Number of food insecure households**
- **Percent of income spent of food**
- **Number of SNAP and WIC authorized retailers in low-income, low access areas, including farmers markets**
- **Tax incentives for improving healthy foods and/or donation of healthy items (e.g. food shelves)**
- **Number of Farmer’s Markets that accept SNAP/EBT**
- **Number of Farmers Markets that accept Market Bucks**
- **Grocery Store Expenditures**
- **Limited Supermarket Access**
- **Neighborhood Safety**
- **Availability of Public Transportation**
- **Cultural Food Retailers**
- **Walkability**
- **Food Access Language in Comprehensive Plans**
- **Food Swamps**
- **Number of Food Networks**
- **Number of worksite wellness programs**
- **Nutrition Related Policies and Practices in schools (from the School Health Profile)**
- **Nutrition and dietary behavior topics taught in schools (from the School Health Profile)**
- **School Health Index**
- **Farm to School Census Data**
  - Money invested in local foods
  - Percent of school district budget invested in local food
- Money received for federal food programs (MN)
- Number Small Scale Distribution Services
- Number Acres for specialty crops
- Agriculture Census (State and County Level Data)
  - Number of Farms
  - Land in Farms (acres)
  - Average Size of Farm
  - Market Value of Products Sold
  - Government Payments
  - Market Value of Agricultural Products Sold
  - Value of Sales by Commodity Group
  - Top Crop Items (acres)
  - Top Livestock Inventory Item (count)