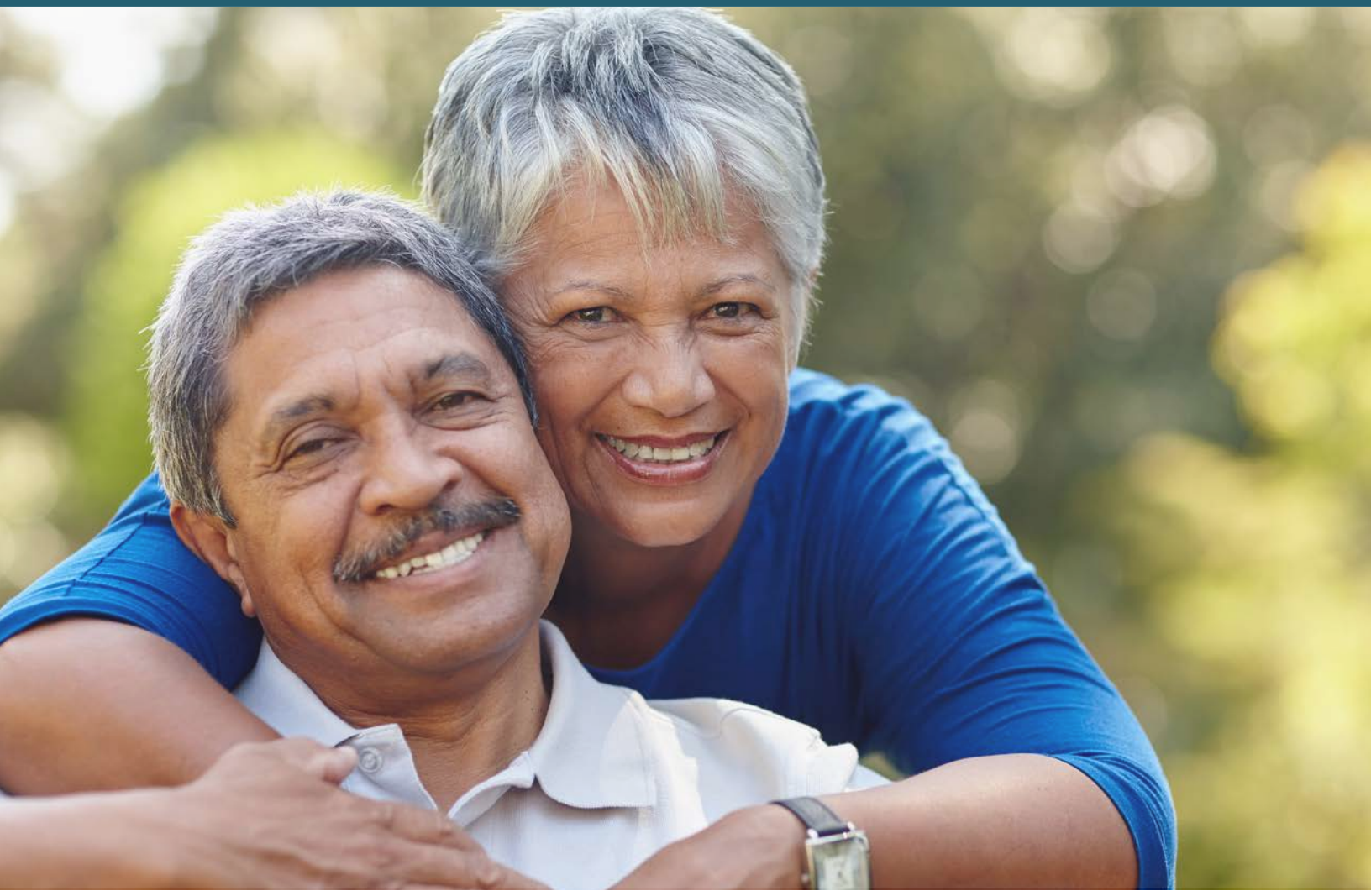
Health Equity Data Analysis

2022



Public Health
Prevent. Promote. Protect.

Meeker McLeod Sibley
Community Health Services

ship
statewide health
improvement partnership

Introduction

While we all may have our own personal definition of “health”, the World Health Organization’s (WHO) definition is often cited when attempting to describe health. According to WHO, health is “a state of physical, mental and social well-being and not merely the absence of disease or infirmity.” Minnesota is typically one of the overall healthiest states; however, it has significant and long-lasting health inequities that cannot be explained solely by genetic factors and personal choice.

The public health community has been increasingly focused on the social determinants of health (SDOH)—the factors apart from medical care that can be influenced by social policies and shape health in powerful ways. Our health is affected by many factors such as genetics, the environment, the existence or absence of relationships and social networks, where we live, our incomes, as well as our lifestyle. But while individual behaviors cannot be overlooked, it is the policies and processes that shape our daily circumstances that really create health.

Creating health equity requires a comprehensive solution that includes, but goes beyond, targeted grants and access to health care. Locally, Meeker-McLeod-Sibley Community Health Services (MMS CHS) needs to address SDOH and health disparities as part of a broad spectrum of public investments in housing, transportation, education, economic opportunity, and criminal justice so all persons, regardless of race, creed, income, sexual orientation, gender identification, age or gender can reach their full health potential.

Therefore, in 2016, MMS CHS staff conducted its first Health Equity Data Analysis (HEDA). HEDA is a process used to analyze health differences between two population groups using data. The process then continues by identifying and examining the causes of these population differences in health using both quantitative and qualitative data collection and analysis methods. A HEDA also intentionally engages the community, both in qualitative data collection and throughout the process.

Identifying The Need

In the 2016 HEDA process, a lack of data on the health of people of color in Meeker, McLeod, and Sibley Counties was identified. In lieu of this resource, data among those households with income less than $35,000 and those households with an income more than $35,000 were compared and disparities

were identified between these two groups. The data from the 2016 HEDA also showed that people of color in the tri-county region are more likely to be lower income. Across all three counties, 40% of non-white and/or Hispanic residents have an income of less than $35,000 while only 29% of white, non-Hispanic residents have an income of less than $35,000; a disparity that has since increased since.[1]

Furthermore, the Hispanic population is the largest and fastest growing non-white population in McLeod and Sibley Counties. From 2015 to 2021, the Hispanic population grew from 5.6% to 6.6% in McLeod County and from 8.6% to 9.3% in Sibley County. Because of these factors, health data on the Hispanic population was identified as a need. However, when the health behavior survey was repeated in 2018, less than 1% of respondents identified as Hispanic. Therefore, in 2019 MMS CHS conducted the same survey with a targeted convenience sample (n=102) of the Hispanic population. With a new set of health behavior data and a new data source specific to the Hispanic community, in 2021 MMS CHS staff decided to conduct a HEDA once again.

Process

To conduct the HEDA, a core group of MMS CHS staff met over several months to conduct the following steps:

- Identified the purpose of the HEDA
- Identified existing data sources for priority populations in MMS
- Conducted an initial analysis of the existing data
- Brainstormed both target populations and target topic areas of community need using the data and staff knowledge
- Determined additional information needs
- Conducted a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis to prioritize both the topic area and target population
- Created a plan for gathering qualitative data
- Analyzed the data and used the results to begin planning next steps

The core group of staff identified the following as the purpose for conducting the HEDA:

- Implement initiatives that better fit the needs of the community
- Improve relationships, community engagement and community empowerment
- Improve health outcomes and reduce health disparities
- Increase awareness, knowledge, support of health equity work
- Improve resource management for greatest impact
- Strengthen local data

1 Meeker McLeod Sibley Community Health Services. Community Health Assessment 2019. Retrieved from: MMS-Community-Health-Assessment-2019-FINAL-1.pdf (mmspublichealth.org)

Analyze Existing Data

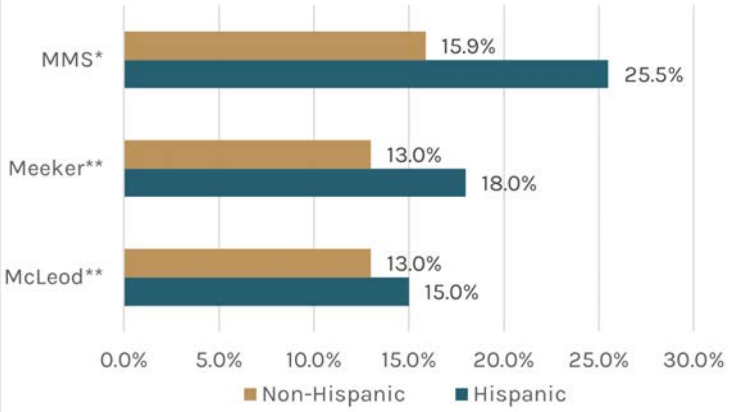
This section uses data from the 2018 Meeker McLeod Healthy Communities Survey random sample of the general population and from the separate 2019 convenience sample with the Hispanic population. These samples were collected using different methods and consequently it is important to note the results are not directly comparable. Nonetheless, these are the most comprehensive MMS health data sources available and when possible, we supplemented or used additional data sources.

DIFFERENCES: HEALTH DATA

Diabetes rates in Minnesota have been increasing since 2000 and hit an all-time high in Minnesota in 2020.[2] MMS is not an exception to this with rates even higher than in Minnesota. The 2018 MMS Healthy Communities Survey showed diabetes in MMS was significantly higher than in Minnesota (15.9% vs 10.4%). Moreover, national data indicate rates of diabetes are higher among Hispanic adults compared to non-Hispanic white adults.[3] Again, MMS is no an exception as results from the surveys show inequities between the MMS Hispanic and non-Hispanic populations for diabetes. Hispanic adult residents are disproportionately affected compared to adult residents overall. Data from PrimeWest for their adult members from 2016-2021 also show disparities in diabetes rates between Hispanic adults and non-Hispanic adults in Meeker and McLeod Counties. (Figure 1)

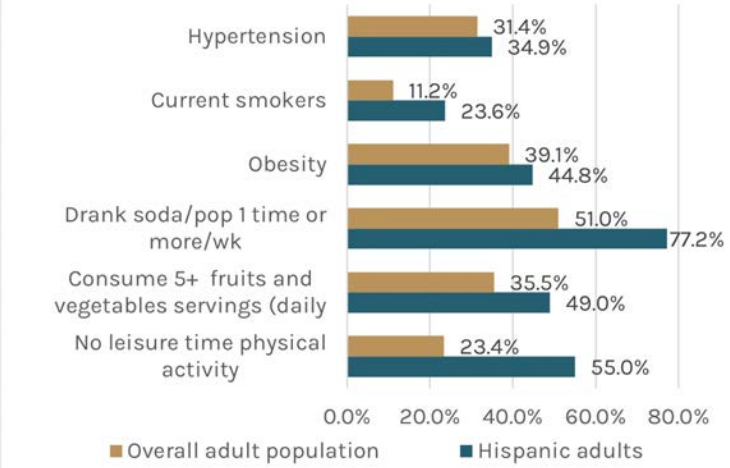
Furthermore, there are similar disparities in MMS for risk factors associated with diabetes, including obesity, unhealthy eating and lack of physical activity. Hypertension and smoking are comorbidities associated with diabetes and both have higher prevalence among the Hispanic population compared to the overall adult population. (Figure 2)

Figure 1: Adult diabetes prevalence in MMS



Source: 2018 MMS Healthy Communities Survey, 2019 MMS Hispanic Healthy Communities Survey, Personal communication with PrimeWest

Figure 2: Diabetes risk factors and comorbidities among MMS adults



Source: 2018 MMS Healthy Communities Survey and 2019 MMS Hispanic Healthy Communities Survey

2 Centers for Disease Control and Prevention. United States Diabetes Surveillance System. https://gis.cdc.gov/grasp/diabetes/DiabetesAtlas.html
3 American Diabetes Association. (July 28, 2022). Statistics About Diabetes. Retrieved from: https://diabetes.org/about-us/statistics/about-diabetes

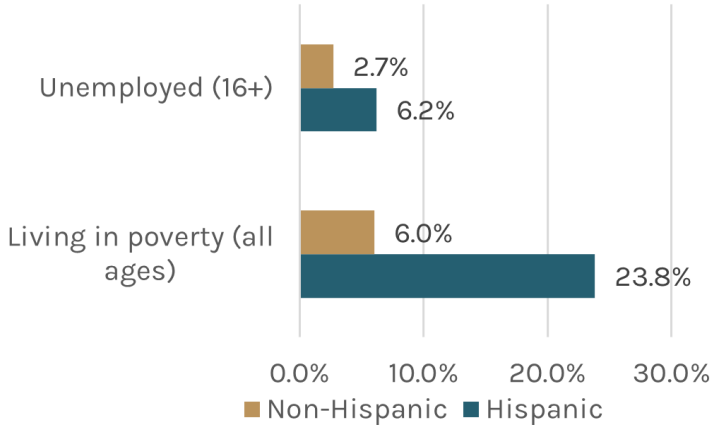
DIFFERENCES: SOCIAL AND ECONOMIC FACTORS

The inequities are not limited to health. Data related to the social determinants of health also show disparities when the Hispanic population in MMS are compared to the non-Hispanic population. Several of these key differences and how they impact health are discussed in the sections below.

Income And Health

Existing studies show that income is a strong predictor of health with those living in communities of poverty experiencing the worst outcomes. They are more likely than residents of higher-income communities to have unsafe housing, lack of access to nutritious foods, less leisure time or access to opportunities for physical activity, poorer education and more overall stress.[4] Because these living conditions lead to poorer health, populations with low-income are more likely than those with higher incomes to have more chronic conditions such as diabetes. For example, MDH found that those living with incomes less than $35,000 per year are two and half times as likely to report having diabetes as those with incomes higher than $35,000.[5] According to US Census data, Hispanic adults in Minnesota and MMS are more likely than non-Hispanic adults to have a family income of less than $35,000 and to be living in poverty.

Figure 3 : Employment and economic status in MMS



Source: 2016-20 American Community Survey 5-year estimates

4 Minnesota Department of Health, Center for Health Equity. (2014). White Paper on Income and Health. Retrieved from: https://www.health.state.mn.us/data/legislative/docs/2014incomeandhealth.pdf

5 Minnesota Department of Health. Income Employment and Diabetes in Minnesota. Retrieved from: https://www.health.state.mn.us/diseases/diabetes/docs/diabetesincome.pdf

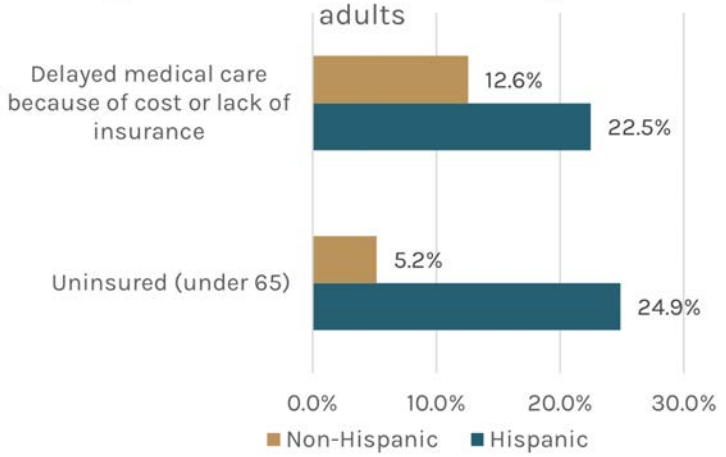
Education

A large body of evidence strongly links education with health, even when other factors like income are considered.[6] Similarly, the rates of diabetes in Minnesota are higher among adults who do not have a college degree compared to those who do, with those who did not graduate from high school having the highest rates.[7] There is a stark disparity in educational attainment among residents of MMS as non-Hispanics adults have more formal education; 20% have a bachelors degree or higher versus 3% for non-Hispanics adults.

Health Care

Access to health care is important for both preventing and particularly for managing diabetes: having health insurance is a strong predictor of whether adults with diabetes have access to diabetes and care.[8] If people don't have insurance, they are less likely to see a medical provider and get appropriate screenings, including screening for diabetes. Similarly, if they have diabetes, it is harder to manage without guidance from a provider or without the cost of medications being affordable. Without access to insurance, patients often delay/forgo care or make the difficult choice of paying out of pocket for their care and potentially not paying other bills.

Figure 4: Health care access among MMS adults



Source: 2018 MMSHealthy Communities Survey; 2019 MMS Hispanic Healthy Communities Survey; 2016-20 American Community Survey 5-year estimates

Local data show that Hispanics adults in Minnesota, are both less likely to have insurance and delay medical care because of cost or lack of insurance, than the non-Hispanic population. (Figure 4)

Additionally, optimal diabetes care measures show how well diabetes is managed among patients and is associated with reducing risks for health problems associated with diabetes. However, data from Minnesota Community Measurement show patients who are Hispanic are among those with significantly lower rates of optimal diabetes care compared to the race/ethnicity averages.[9]

6 Robert Wood Johnson, Commission to Build a Healthier America. (April 2011). Education and Health, Issue Brief #5, Exploring the Social Determinants of Health.

7 Minnesota Department of Health. (October 30, 2022). Diabetes in Minnesota. Retrieved from: https://www.health.state.mn.us/diseases/diabetes/data/diabetesfacts.html

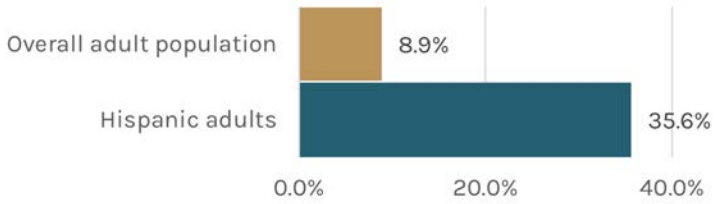
8 Felicia Hill-Briggs, Nancy E. Adler, Seth A. Berkowitz, Marshall H. Chin, Tiffany L. Gary-Webb, Ana Navas-Acien, Pamela L. Thornton, Debra Haire-Joshu; Social Determinants of Health and Diabetes: A Scientific Review. Diabetes Care 1 January 2021; 44 (1): 258–279. https://doi.org/10.2337/dci20-0053

9 Minnesota Community Measurement. (May 2021). Minnesota Health Care Disparities. Retrieved from: https://mncmsecure.org/website/Reports/Community%20Reports/Disparities%20by%20RELC/2020%20Disparities%20by%20RELC%20Chartbook%20-%20FINAL.pdf

Food Insecurity

Food security is important for preventing and particularly for managing diabetes. For those experiencing food insecurity, the problem often isn't getting enough calories, it's getting too many of the wrong kind. Typically, the cheapest and most readily available foods (fatty, fried takeout, high-sodium prepared meals, candy and soda/pop) provide enough calories, but they contribute to or make it hard to properly manage and prevent chronic conditions such as diabetes. Yet food insecurity - defined as lack of consistent access to enough food for an active, healthy life– is another social determinant of health where there are higher self-reported rates among the Hispanic population in MMS compared to the overall population. (Figure 5)

Figure 5: Food insecurity among MMS adults



Source: 2018 MMS Healthy Communities Survey and 2019 MMS Hispanic Healthy Communities Survey

Collect New Qualitative Data

To help further understand and identify factors related to the differences in both health and social determinants of health for the Hispanic population in MMS, staff conducted 22 interviews and one seven-person focus group. Overall, staff had conversations with 35 individuals, 63% of whom were Hispanic.

The primary goal was to learn more about 1) why the rates of diabetes in the Hispanic community in the Meeker-McLeod-Sibley region are higher when compared to the overall population and 2) how living and working conditions for the Hispanic community are different. Interview participants were primarily members of the Hispanic community, but also included professionals in public health, healthcare, local business and social workers who work directly with the Hispanic community. Interviewees were asked about:

- Health concerns in the Hispanic community,
- Supports for and barriers to prevention and management of diabetes,
- The living and working conditions that impact health and diabetes in the Hispanic community and
- Potential ways to address diabetes prevention and management in the Hispanic community.

Organized into CDC's SDOH categories (colored text box headings), the following themes emerged as to why rates of diabetes are higher in the Hispanic community, and what respondents believe is directly impacting diabetes prevention and treatment/management:

Economic stability	Education access and quality	Health care access and quality	Neighborhood and built environment	Social and community context
• Demanding jobs – long hours, too tired and/or not enough time to cook and exercise • Low pay contributing to lack of resources for healthy food and gym access • Workplaces not allowing time off to go to medical appointments	• Lack of education and knowledge around health affecting making better choices • Lack of information/ resources in Spanish language	• Few Spanish speaking providers • Lack of health insurance • Insurance not covering everything • High cost of insulin or other medication	• Inconsistent access to grocery stores • Fast food being easily accessible and plentiful • Cold weather, lack of places to walk indoors • Unhealthy food at schools and work • Limited transportation options to get to appointments	• Unhealthy eating habits; traditional food often is fried/greasy, sugar, carbs and alcohol • Racism • Immigration status • Struggles with mental health

Differences In Conditions And Causes

As part of the conversations, community member respondents were asked about ten specific social and environmental factors and whether they are affecting the ability of the Hispanic community to be healthy. See Appendix A for a table showing the results. For additional context, the following includes further description about the conditions that result in different health status with quotes from respondents:

When asked why they think rates of diabetes are higher among the Hispanic population, the most common theme was diet and nutrition, often mentioned in the context of Hispanic culture. Respondents talked about the traditional diet as delicious but also that it includes a lot of fat, sugars and carbs and that cultural norms include eating/providing sweets, drinking soda and eating processed food. They also discussed that eating all the food given to you is customary and that food is central in gathering.

> *"Hispanic food is also not the healthiest; it traditionally includes a lot of carbs like beans, rice, and tortillas which is too much of that one food category compared to the others. Hispanics are very generous with the food that we give. If we have people over, we're going to feed that person a lot of food because we don't want them going home hungry."*

Many respondents described working conditions as having a significant impact on their ability to be healthy. Many members of the Hispanic community are working long hours, sometimes 12-hour days, and perform manual labor. Either or both leaves them with little energy or time at the end of the day to engage in exercise or cooking healthy meals. This is especially true for parents with children under 18 as they have the added responsibility of caring for the needs of their children. Therefore, their own health often gets set aside for these other priorities. Additionally, they are not always allowed to take time off for medical appointments.

"...when someone works ten to twelve hours a day it will play a part...because now they are too tired to exercise or to cook a decent meal so instead, they will run to Burger King...because they have no energy left."

"They can't miss work and the system isn't set up for working parents."

Lower income impacts access to healthy food and exercise opportunities; 80% of respondents agreed income affects health. Furthermore, because many members of the Hispanic community are working at jobs that are lower paying, it can impact their ability to both access and pay for health care and access healthy food and recreation opportunities. This is because frequently convenient, less healthy food is cheaper and more accessible in the community and at work and school. Additionally, gym memberships are expensive, which is harder to afford for those with lower incomes.

"That's why I think a lot of people skip checkups because they are financially limited."

"If all your money is going to rent, you are not going to have money for a gym membership or buying appropriate food."

"A lot of unhealthy food at school – chocolate milk, jelly, etc. and birthday cakes and candy for holidays."

Education was another theme that rose as a barrier to health and managing diabetes; 85% believed education and job training were factors impacting health. This was discussed regarding both formal education and general education and knowledge on diabetes and health. Those who do not have as much formal education often are more limited in their employment options and have lower paying jobs, or jobs that do not offer health insurance. Some have also received less education on health and taking care of one's health and subsequently don't have the same knowledge on which to make healthier choices, to navigate health systems and resources or manage their diabetes. This is especially true for those who face a language barrier if services or resources are only offered in English.

"If a person isn't educated well enough they are not going to know how to make healthy food choices or even the effects that bad food can do to your body."

Access to health care is often a challenge for Hispanic residents and three-quarters of the interviewees think is a factor influencing health. Health care was discussed as a barrier to preventing diabetes but also as a barrier to managing diabetes. This is for a variety of reasons, including lack of access because insurance is not provided by an employer or because of legal status, lack of Spanish speaking providers, the high cost of medication (including insulin) and because insurance often does not cover the full cost of everything.

"Often people have to decide between the cost of insulin and feeding their family."

"Sometimes it's [healthcare] too expensive and the insurance doesn't cover everything I need, I end up in a lot of debt even though I have insurance..."

"There are not enough providers who speak Spanish to really relate the information to the patient."

The social and community environment was identified as a factor that is affecting health. **While a few thought racism didn't impact them, a large majority of interviewees (75%) agreed racism impacts their life in various ways and discussed that it exists everywhere, even between Hispanics.** Respondents discussed how they are often treated differently, hear comments about wanting things

for free and feel people won't try to understand them if they don't speak English well. This in turn affects their sense of safety and creates fear and stress, which ultimately impacts mental health and how much they go outside, socialize or seek help.

> *"I think there is a divide in our community. A lot of time it feels as though the Hispanic people are looked down upon….treated differently."*

> *"It's become the new norm that more Hispanics are moving into these communities and we are either accepted or tolerated and I think we deserve more than that."*

As is shown in the above discussion, these factors are all interconnected. They influence and often exacerbate each other. For example, lower educational attainment can limit employment opportunities with higher pay, employer provided health insurance and other benefits. One respondent from the community conversations summed:

> *"They all tie in together. No established care for migrant work leads to no history with local doctors, low income so don't take time off to go to the doctor, lack of education so don't understand all they should."*

In Summary

Essentially, existing research, local quantitative data and these community conversations all indicate the Hispanic community in MMS is experiencing barriers to health. They comprise lack of access to insurance, health care and medication but also go beyond factors we typically think of as directly linked to health including challenging working conditions, education/economic opportunity, racism and legal status. These barriers make it challenging for people to be as healthy as they would like to be.

Next Steps

The next step is to share these results with the community members and professionals who participated in the interviews and focus group, as well as with other stakeholders.

Additionally, local public health staff are using these results, in particular the ideas for how to prevent and address diabetes in the Hispanic community, to begin planning initiatives. A list of these suggestions is included in Appendix B. Further, MMS CHS staff are seeking grant opportunities from the Minnesota Department of Health to fund these initiatives. As part of the conversations, several partners who would like to be involved in this work were identified. To ensure appropriateness and inclusivity of the community it is serving, this work cannot move forward without their involvement.

For More Information, Contact:

Mary Bachman
Community Health Planner
507.237.4048
maryb@sibleycounty.gov

Kerry Ward
Health Educator
320.864.1512
kerry.ward@mcleodcountymn.gov

Emily Orocio (Spanish or English)
Community Health Worker
507.237.4037
emilyorocio@sibleycounty.gov

Appendix A: Quantitative results on factors impacting health

Community member respondents were asked about ten specific social and environmental factors and whether they are affecting the ability of the Hispanic community to be healthy. The following table shows the percent of respondents that said yes to each of the factors (social determinants of health):

Table 1: Percent who said yes to each social determinant of health as a factor that impacts the ability of the Hispanic community to stay healthy

Social Determinant of Health	% Yes
Support from others around you	95%
Education or job training	90%
Access to affordable housing	85%
Income	80%
Access to health care	75%
Employment	75%
Racism	74%
Belonging and Community	65%
Transportation	60%
Safety	37%

Appendix B: Suggestions to prevent and manage diabetes

EDUCATION

All respondents thought education was needed and discussed how education and information helps members of their community to be healthy.

Ideas on how to provide education

- Have in person, particularly important for those who do not use the internet
- Use social media
- Provide materials in both English and Spanish; materials in Spanish are better for older generations
- Provide diabetes management classes
- Start with educating kids
- Bring info to the community at churches, libraries, stores, schools, home visits from health nurses, etc.

Topics:

- Healthy eating was the most suggested topic
  - Cooking healthy meals - with less grease, salt and sugar
  - Information on calories, vitamins, and portion sizes
- Early signs and symptoms of diabetes
- Risk factors, including the benefits of healthy eating and exercise

OTHER SUGGESTIONS

- Events/gatherings – fun, cultural, information for kids/whole family
  - Community-wide wellness day
  - Biometric screenings at workplaces and schools
  - Sample healthy foods
  - Similar to what is done for Seneca orientation
- Activities
  - Zumba
  - Adult walking groups
  - For entire family, especially during colder months
  - Financial assistance for recreational offerings i.e. soccer
  - Offer specific opportunities such as a Michael Foods pool aerobics class
- Better access to healthcare
- People resources
  - Get more people connected to community health workers
  - Central resource office with people that speak Spanish
  - Cultural liaison/champion within the community
  - Providers that can really connect with community, including bilingual
  - Spanish educator, including breastfeeding educator and better communication and outreach to the Hispanic community