MICHIGAN FARMERS MARKET ASSOCIATION

THE CASE FOR PRODUCE PRESCRIPTION PROGRAMS IN MICHIGAN

Ninety percent of the U.S.'s $4.1 trillion annual healthcare expenditures go to treat chronic diseases and mental health conditions[1]. Research has shown that adequate fruit and vegetable consumption has a wide range of health benefits including reducing the risk of many of the costlier chronic diseases such as diabetes, heart disease and stroke, cancer, and depressive disorders[2].

In Michigan, too many individuals are living with chronic diseases and mental health conditions.

The COVID-19 pandemic has exposed disparities further highlighting the relationship between food insecurity, diet, and health. Lack of access to fruits and vegetables can prevent proper management of chronic diseases, perpetuating disparities and inequities across health outcomes. Additionally, People of Color are more likely than people who are white to have major long-term chronic health conditions.

Food security and the health improvements that can come with it can be achieved by targeting at-risk populations with interventions that respond to the critical link between nutrition access and health. Produce Prescriptions and other Food Is Medicine style programs allow those experiencing food insecurity and/or chronic disease diagnoses to address their disease through nutrition while receiving nutrition education guidance on healthy eating and choice.

Disparities in health and social determinants in Michigan include[3]:

- **Higher mortality rate for diabetes in Arab American and African American populations**
  (1.6x – 1.7x the state average)
- **Higher prevalence of cardiovascular disease in Native American and Hispanic/Latinx populations**
  (1.2x – 1.7x the state average)
- **Higher rates of poverty experienced by Arab American and African American populations**
  (2.4 – 2.9x the state average)

> **Michigan is also ranked above the 75% percentile** for annual statewide healthcare costs associated with **food insecurity totalling $1,801,282,000 per year[4].**

[1]Centers for Disease Control and Prevention. (n.d.). Health and Economic Costs of Chronic Diseases. Retrieved October 16, 2023. **https://www.cdc.gov/chronicdisease/about/costs/index.htm**

[2]Public Sector Consultants. (2021, January). Produce Prescription Programs: Health Impacts of Fruit and Vegetable Consumption. **https://mifma.org/wp-content/uploads/2021/05/Produce-Prescription-Program-Health-Impact-Analysis-1.pdf**

[3]Michigan Department of Health and Human Services Office of Equity and Minority Health. (n.d.) Addressing Health Disparities in Diverse Communities: A Systematic Review of the Literature. **https://www.michigan.gov/-/media/Project/Websites/mdhhs/Folder4/Folder33/Folder3/Folder133/Folder2/Folder233/Folder1/Folder333/SystemicReview-AddressingHealthDisparitiesInDiverseCommunities.pdf?rev=5797328813c3499994a6ea7f7609bcee**

[4]Governor's Food Security Council. (2022, February 7). Food Security Council Final Report. **https://www.michigan.gov/-/media/Project/Websites/mdhhs/Folder2/FSC_Final_Report1.pdf?rev=a649563170a9477892c247f254e4dac2**

THE OPPORTUNITY FOR PRODUCE PRESCRIPTION PROGRAMS

Produce Prescription (PPR) programs provide patients greater access to fruits and vegetables with the goals of improving their health outcomes and interactions with the Social Determinants of Health. With a continuous community-driven focus relying on strong partnerships between healthcare organizations, food retailers, and community-based organizations, each PPR program is designed by the community, for the community.

Benefits of increasing access to Produce Prescription programs:

- Increased food security
- Increased fruit and vegetable consumption
- Improvements in clinical health outcomes
- Improvements in perceived overall health and mental health
- Positive impacts on the local economy
- Increased revenue for Michigan farmers

In a large multi-site evaluation from 22 produce prescription programs across 12 US states, participation in Produce Prescription programs were associated with:

- Improvements in fruit and vegetable intake (increased by 0.85 cups per day)
- Food insecurity (odds of being food insecure decreased by 33%)
- Self reported health status (60% increase)
- Clinically relevant improvements for adults with poor cardiometabolic health:
  - HbA1c (dropped by 0.20 – 0.58% age pts)
  - Blood pressure (declined by 8.38 – 11.10 mm Hg)
  - BMI (decreased by 0.36 – 0.52 kg/m2)[5]

HEALTH CARE SAVINGS

Over a lifetime, modeling estimates that providing Medicare and Medicaid enrollees at the national level with a fruit and vegetable incentive would prevent:

- 1.93 million cardiovascular disease (CVD) events
- 0.35 million CVD deaths

and save $40 billion in healthcare costs[9]

Expanding Produce Prescription Program participation among Michigan's 3.2 million Medicaid participants (including the Healthy Michigan Plan) and 2.17 million Medicare participants[10] could bring considerable health benefits and cost savings to Michigan.

For More Information: Contact the Michigan Farmers Market Association at office@mifma.org or visit www.mifma.org/ppr

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A SNAPSHOT OF EVIDENCE OF PRODUCE PRESCRIPTION PROGRAMS IN MICHIGAN

Improvement in patient health outcomes: Improved hemoglobin A1c levels in individuals with diabetes, the primary indicator for managing the disease[6]

- Fresh Prescription, Detroit, MI

Improvement in self-reported quality of life[7]

- Prescription for Health, Houghton, MI

Improvements for children participating in PPR Programs:

- Child dietary patterns
- Child-reported food security
- Caregiver-reported household food security[8]
  - Fruit & Vegetable Prescription Program, Flint, MI

[5]Hager, K., Du, M., Li, Z., Mozaffarian, D., Chui, K., Shi, P., Ling, B., Cash, S.B., Sara C. Folta, S.C., Zhang, F. (2023, August 29). Impact of Produce Prescriptions on Diet, Food Security, and Cardiometabolic Health Outcomes: A Multisite Evaluation of 9 Produce Prescription Programs in the United States. Cardiovascular Quality and Outcomes, 16(9), e009520. https://doi.org/10.1161/CIRCOUTCOMES.122.009520

[6]Bryce, R., Guajardo, C., Ilarraza, D., Milgrom, N., Pike, D., Savoie, K., Valbuena, F., Miller-Matero, L.R. (2017). Participation in a farmers' market fruit and vegetable prescription program at a federally qualified health center improves hemoglobin A1C in low income uncontrolled diabetics. Preventive Medicine Reports, 7, 176-179. https://doi.org/10.1016/j.pmedr.2017.06.006.

[7]Joseph, C. A., Seguin, M.L. (2023). "Something Fun to Look Forward to": Lessons From Implementing the Prescription for Health Farmers' Market Initiative in Rural Upper Michigan. Health Promotion Practice, 24(5), 903-910. https://doi.org/10.1177/15248399221093966

[8]Saxe-Custack, A., LaChance, J., Jess, J., & Hanna-Attisha, M. (2021). Influence of a Pediatric Fruit and Vegetable Prescription Program on Child Dietary Patterns and Food Security. Nutrients, 13(8), 2619. https://doi.org/10.3390/nu13082619

[9]Lee Y, Mozaffarian D, Sy S, Huang Y, Liu J, Wilde PE, et al. (2019) Cost-effectiveness of financial incentives for improving diet and health through Medicare and Medicaid: A microsimulation study. PLoS Med 16(3): e1002761. https://doi.org/10.1371/journal.pmed.1002761

[10]Michigan Health and Hospital Association. (2023, May 26). MHA Enrollment Data Analysis Expansion. https://www.mha.org/newsroom/tag/data-analysis/#:~:text=Statewide%2C%20nearly%2022%25%20of%20the,of%20nine%20managed%20care%20plans