


# Establishing Infrastructure for the Michigan Diabetes Prevention Network

Through the creation of a Diabetes Prevention Network, Diabetes Prevention Programs across Michigan addressed shared challenges and solutions. Between 2015 and 2018, there was an increase in the number of diabetes prevention program providers and participants, in addition to improved program outcomes.


## Problem



In 2015, 37% of adults age 20 or older had prediabetes in the US. In Michigan, an estimated 2.6 million adults have prediabetes. The prevalence is greater among communities of color and people with disabilities.<sup>1</sup> Without intervention, approximately 37% of people with prediabetes may develop type 2 diabetes within four years.<sup>2</sup> Diabetes imposes a substantial burden on society, affecting individuals, families, workplaces and the U.S. health care system. In 2012, the total direct and indirect estimated cost of diagnosed diabetes in the United States was \$245 billion and average medical expenditures among people with diabetes were about 2.3 times higher than expenditures for people without diabetes.<sup>3</sup> The National Diabetes Prevention Program (NDPP) is a partnership of public and private organizations working together to build the infrastructure for nationwide delivery of an evidence-based lifestyle change program for adults with prediabetes to prevent or delay onset of type 2 diabetes.

A key component of the National DPP is a structured, evidence-based, year-long lifestyle change program to prevent or delay onset of type 2 diabetes in people with prediabetes or at risk of developing type 2 diabetes; these are also referred to as “CDC-recognized diabetes prevention programs.” These programs are group-based, facilitated by a trained lifestyle coach, and use a CDC-approved curriculum. Diabetes prevention programs can reduce one’s risk of developing type 2 diabetes by 58% by losing 5-7% of their body weight through healthier eating and 150 minutes of physical activity per week.<sup>4</sup> Scaling and sustaining The National DPP is critical to increasing participant enrollment, preventing diabetes, and reducing the physical and economic burden of diabetes. In 2013, Michigan Department of Health and Human Services (MDHHS) developed a network of stakeholders that could scale and support The National DPP and encourage coordination between partners.

## Intervention



From 2013 to 2018, MDHHS was awarded the CDC’s State Public Health Actions to Prevent and Control Diabetes, Heart Disease, Obesity and Associated Risk Factors and Promote School Health (DP13-1305) grant. This is a CDC-funded coordinated approach to chronic disease prevention and management and the primary funding mechanism to support the growth of the diabetes prevention network. MDHHS leveraged funding and partnerships with the National Association of Chronic Disease Directors (NACDD) to host the first statewide diabetes prevention conference, “Making the Case” in October 2013.

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## Intervention (continued)

This milestone event was the foundation for building a network to facilitate learning opportunities, resource sharing, and regional coordination. Roughly a year after “Making the Case,” Michigan was the first state approached by the CDC, American Medical Association (AMA), and NACDD to host a state engagement meeting and develop a diabetes prevention action plan. Michigan was chosen because of factors including the prime position of the Network, number of CDC-recognized diabetes prevention programs, and degree of public health support. The state engagement meeting, hosted in May 2015, established the MI Diabetes Prevention Action Plan, creating a common vision and shared goals. The plan provides a roadmap that diabetes prevention stakeholders can use to accomplish two goals: 1) increase clinical prediabetes screening, testing, and referrals of high risk individuals to diabetes prevention programs, and 2) increase health plan and employer coverage of The National DPP. MDHHS released the plan in October 2016, and developed one workgroup per goal to engage partners and scale impact.

Through the leadership of MDHHS and by reaching milestone achievements in the beginning, the Network has positioned itself as a credible, trusted entity among diabetes prevention partners. Participation in the Network increased by over 1000 percent, from a small meeting of 17 stakeholders primarily representing southeast and central Michigan to over 200 statewide partners, spanning multiple sectors including health systems, community-based organizations, insurance companies, and employers. Three statewide meetings a year, averaging more than 45 participants, feature both national and local leaders, facilitated programmatic discussions, and health equity driven engagement strategies. Action plan workgroup meetings consistently average 25 participants who actively share ideas and feedback. By using a health equity engagement strategy, partners have ownership in the action plan goals and facilitate strategy implementation in local communities, covering most of the state.


The Network shares challenges and systematically addresses solutions. The diverse landscape of health system types and protocols to screen, test, and refer patients with prediabetes make it difficult to provide general models and recommendations for STR processes. The workgroup is systematically assessing over 700 healthcare organizations to identify common practices, make linkages within geographic regions, and provide technical assistance to reduce duplication and address unmet needs. MDHHS responds to challenges as the neutral convener and uses an inclusive, member-centered approach to provide direction. It is a successful strategy to overcome challenges.

## Health Impact

In 2013, MDHHS proactively established the MI Diabetes Prevention Network and, as a result, the support and infrastructure served as a catalyst for The National DPP expansion in Michigan. The number of diabetes prevention program providers increased from 28 in May 2015 to over 70 in 2018, with 10 achieving full CDC-recognition.

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## Health Impact (continued)



As of January 2018, these programs have reached 7,425 participants. Through MDHHS's prioritization of evidence-based strategies, community capacity building, and direct technical assistance, the diabetes prevention programs in MI are highly successful and frequently exceed minimum program standards. In 2018, Michigan ranked in the top nine states for percent weight loss, with program completers averaging a 5.4% reduction in body weight. MDHHS's role in leading implementation of the diabetes prevention action plan has realized measurable outcomes in plan activities. For example, representative of workgroup efforts, over half of program participants are referred by a healthcare provider, far exceeding the 35% minimum standard.

The success over the past five years has prepared MDHHS to enhance this work. MDHHS balances local and federal perspectives, and as a direct link to CDC, MDHHS facilitates communication of promising practices, broad challenges, and data sharing. Moving forward as the trusted convener, MDHHS will continue to assess gaps in diabetes prevention efforts and be a leader in diabetes prevention.

## References and Notes

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1. Centers for Disease Control and Prevention. Diabetes Report Card 2014. Atlanta, GA: Centers for Disease Control and Prevention, US Department of Health and Human Services; 2015. *Since prediabetes prevalence cannot be estimated for Michigan specifically, the national prevalence rate (37%) is applied to Michigan's adult population (7,063,223) to derive the estimated number of adults in Michigan that are affected by prediabetes.*
  2. Tuso, P. MD, FACP, FASN (2014 Summer). Prediabetes and Lifestyle Modification: Time to Prevent a Preventable Disease. *The Permanente Journal*, 18(3), 88–93.
  3. American Diabetes Association. Economic costs of diabetes in the U.S. in 2012. *Diabetes Care*. 2013;36(4):1033–1046.
  4. Diabetes Prevention Program Research Group. (2002). Reduction in the Incidence of Type 2 Diabetes with Lifestyle Intervention or Metformin. *N England Journal of Medicine*, 346:393-403.