The National Diabetes Prevention Program May Benefit People with Diabetes

Burden Facts

- In 2024, diabetes affected an estimated 7 percent of Montana adults[1].
- National DPP participants with diabetes saw improvements in body weight, glycemic control, and lipid panels[2].
- The preferred tool for management of diabetes remains individualized DSME, which can address an individual's needs and goals more directly.
- Participants with diabetes do not count for CDC recognition for a National DPP delivery site and should be tracked separately when permitted to attend sessions.

The National Diabetes Prevention Program May Benefit People with Diabetes

Although the National Diabetes Prevention Program (DPP) is designed for people at risk of developing Type 2 diabetes, many aspects of the program align with goals for managing existing Type 2 diabetes. In 2024, an estimated 7% of Montana adults have Type 2 diabetes; another 11% have prediabetes, although it is estimated that 33% likely have the condition[1]. Improvements in weight, glycemic control, and lipids are all important for the management of diabetes as well as the prevention of the disease, and are emphasized in the American Diabetes Association's (ADA) Standards of Care[3-7] . While National DPP participants with existing diabetes are not reported in performance goals related to grants from Centers for Disease Control and Prevention (CDC) or current insurance reimbursement for the program, there is potential benefit to the community by offering the program to people with diabetes. This is especially valuable in communities where Diabetes Self-Management and Education Services (DSMES) are not otherwise available. Since its inception in 2012, Montana DPP cohorts have occasionally included participants with diabetes. This report examines recent outcomes among participants with diabetes for changes in health metrics significant for management of the disease.

CONTACT

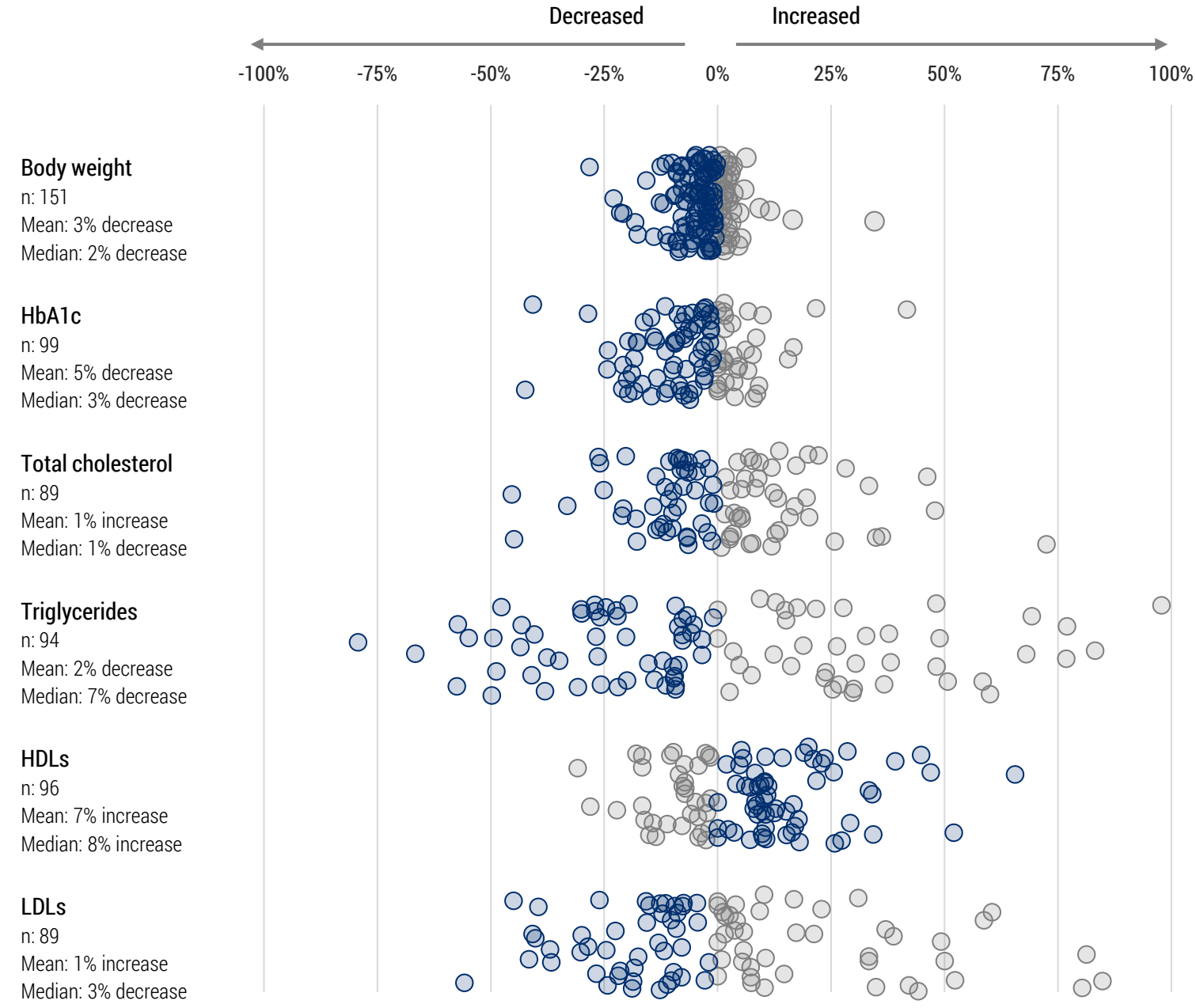
Montana Diabetes Program
diabetes@mt.gov
1-844-MTHLT4U
(1-844-684-5848)

RESOURCES

- The ADA Standards of Care in Diabetes is available online or as an app for Android or iOS.
- The Montana Diabetes Program provides information on the National Diabetes Prevention Program and access on the Diabetes Prevention story map.
- Information on DSMES in Montana, including information on ADA-recognized and ADCES-accredited sites can be found on the DSMES story map.

Figure. Most National DPP participants with diabetes had measurable **improvements** in their health.

Percent change in body weight, hemoglobin A1c, total cholesterol, triglycerides, high-density lipoproteins, and low-density lipoproteins[2].



Data and Methods

The sample described in this report consists of participants with diabetes at the time of their intake interview whose first National DPP session fell between January 1, 2022 and October 1, 2025, and had measurements for the selected outcomes both before and after participating in the program. This ranged from 89 participants for total cholesterol and low-density lipids to 151 participants for weight loss. Measurements were taken at intake, mid-program, and at the end of the program; participants without end-of-program measurements had their mid-program measurements imputed for analysis.

Obesity and Weight Loss

Obesity is a key driver of diabetes, other cardiovascular risk factors, and ultimately, cardiovascular and kidney disease. Diabetes can further exacerbate obesity, including through the use of glucose-lowering therapies that lead to weight gain, and obesity can exacerbate hyperglycemia and diabetes, thereby setting up a vicious cycle that contributes to disease progression and occurrence of complications. As such, treatment goals for both glycemia and weight are recommended in people with diabetes to address both hyperglycemia and its underlying pathophysiologic driver (obesity) and therefore benefit the person holistically[3].

There were 151 participants with a recorded weight for both before and after participation in the National DPP. The average change in weight was a 3 percent decrease from intake (median: 2 percent decrease). Most participants experienced some weight loss (70 percent), with 30 percent experiencing weight loss of 5 or more percent (Figure)[2].

Glycemic Goals and A1c

The American Diabetes Association recommends an A1c goal of less than 7 percent for many nonpregnant adults without severe hypoglycemia or frequent hypoglycemia affecting health or quality of life. A1c testing is the primary tool for assessing glycemic status in both clinical practice and clinical trials, and it is strongly linked to diabetes complications. Measurement approximately every 3 months determines whether glycemic goals have been reached and maintained. Adults with type 1 or type 2 diabetes who have achieved and are maintaining glucose levels within their target range may only need A1c testing or other glucose assessments twice a year. Individuals with less stable glucose levels, those with intensive care plans, or those not meeting their treatment goals may require more frequent testing, typically every 3 months, with additional assessments as needed. Point-of-care A1c testing can offer timely opportunities for treatment adjustments during appointments with health care professionals[4].

There were 99 participants with a recorded A1c before and after participation in the National DPP. At intake, 63 percent of participants had an A1c below 7 percent; this increased to 79 percent at the end of the program. Nearly two thirds of participants experienced a decrease in A1c (66 percent, Figure). The average relative percent change in A1c was a decrease of 5 percent (such as an individual decrease from 10 percent to 9.5 percent), with a median of a 3 percent decrease (such as an individual decrease from 10 percent to 9.7 percent)[2].

Cardiovascular Disease Risk

Diabetes is an independent risk factor for cardiovascular disease (CVD), increasing the risk for stroke and CVD-related death by a factor of two to four[8]. These effects are driven dually through hyperglycemia and insulin resistance. Excess glucose levels convert to triglycerides in the liver. This process is exacerbated by type 2 diabetes, which can reduce glucose tolerance or uptake of glucose into the body's cells[9]. Even in the absence of hyperglycemia, insulin resistance promotes several processes that lead to advanced plaque progression in blood vessels[10]. Therefore, a lipid profile, including total cholesterol, low density lipoproteins (LDLs), high density lipoproteins (HDLs), and triglycerides are all components of comprehensive diabetes medical evaluations at initial, follow-up, and annual visits[5].

Total Cholesterol

There were 89 participants with a recorded total cholesterol for both before and after participating in the National DPP. At intake, 76 percent of participants had normal total cholesterol. Final measurements yielded 73 percent of participants who had normal total cholesterol. Although over half (52 percent) of the participants experienced a reduction in their total cholesterol, with 22 percent experiencing a reduction of 10 percent or more, the average percent change (1 percent increase) and median percent change (1 percent decrease) were not significant (Figure)[2].

Triglycerides

There were 94 participants with recorded triglycerides for both before and after participation in the National DPP. At intake, 47 percent of participants had healthy triglyceride levels; this increased to 53 percent at the end of the program. Most participants experienced a decrease in triglycerides (56 percent, Figure). The average change in triglycerides was an increase of 2 percent with a median of a 7 percent decrease. The presence of extreme values and evidence from the change in proportion of people with healthy triglyceride levels suggests the median may be more reliable for understanding the impact of the National DPP on triglyceride levels in these data[2].

High-Density Lipoproteins

There were 96 participants with a recorded HDL for both before and after participation in the National DPP. At intake, 18 percent of participants had a healthy HDL level, which increased to 22 percent at the end of the program. Most participants experienced an increase in HDLs (64 percent, Figure). The average change in HDLs was an increase of 7 percent with a median of an 8 percent increase[2].

Low-Density Lipoproteins

There were 89 participants with a recorded LDL for both before and after participation in the National DPP. At intake, 54 percent of participants had a healthy LDL level. This increased to 58 percent by the end of the program. Most participants experienced a decrease in LDLs (52 percent, Figure). The average change was an increase of 1 percent while the median change was a decrease of 3 percent[2].

Discussion and Conclusions

Although the intention of the National DPP is to prevent the onset of type 2 diabetes, skills and knowledge gained from the lifestyle change program are potentially beneficial to people living with diabetes. Among 270 participants, metrics were available for up to 151 of them. With the exception of changes in total cholesterol, all metrics demonstrated beneficial changes in the majority of participants. While these changes would not mean the prevention of an already existing disease, they are meaningful for the prevention of onset of complications associated with diabetes, including deleterious cardiovascular outcomes. Coaches delivering this program to participants with diabetes should be aware that these participants will not be included in CDC outcome reporting nor are eligible for reimbursement. Counting such participants as a separate cohort that runs alongside the regular cohort is a strategy that may help deliver this service without misrepresenting the data when reporting to CDC. The preferred tool for management of diabetes remains individualized DSME, which can address an individual's needs and goals more directly. Aspects of diabetes management that aren't covered by the National DPP include setting glycemic controls, monitoring blood sugar, and monitoring diabetes related complications. In consideration of this, allowing people with diabetes to attend National DPP classes can still teach them beneficial skills related to diet and physical activity, reducing the demand of individual meetings on these topics.

References

1. Montana Department of Public Health and Human Services (MT DPHHS) and Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey (BRFSS) Data. 2024.
2. MT DPHHS. Prevention Access Web-based System Data. 2022-2025.
3. American Diabetes Association Professional Practice Committee. (2025). Obesity and Weight Management for the Prevention and Treatment of Type 2 Diabetes: Standards of Care in Diabetes–2025. *Diabetes Care: Standards of Care in Diabetes, 48 (Supp 1)*. doi:10.2337/dc25-S008
4. American Diabetes Association Professional Practice Committee. (2025). Glycemic Goals and Hypoglycemia: Standards of Care in Diabetes—2025. Diabetes Care: Standards of Care in Diabetes, 48 (Supp 1). doi:10.2337/dc25-S006.
5. American Diabetes Association Professional Practice Committee. (2025). Comprehensive Medical Evaluation and Assessment of Comorbidities: Standards of Care in Diabetes—2025. Diabetes Care: Standards of Care in Diabetes, 2025, 48 (Supp 1). doi:10.2337/dc25-S004.
6. American Diabetes Association Professional Practice Committee. (n.d.). Facilitating Positive Health Behaviors and Well-being to Improve Health Outcomes: Standards of Care in Diabetes—2024. Diabetes Care: Standards of Care in Diabetes, 47, pp. S77-S110. doi:https://doi.org/10.2337/dc24-S005.
7. American Diabetes Association Professional Practice Committee. (2024, January 1). Retinopathy, Neuropathy, and Foot Care: Standards of Care in Diabetes—2024. Diabetes Care: Standards of Care in Diabetes, 47, pp. S231-S243. doi:https://doi.org/10.2337/dc24-S012.
8. Wu, L., & Parhorfer, K. G. (2014). Diabetic dyslipidemia. *63*(12). doi:10.1016/j.metabol.2014.08.010.
9. Stuart, W., & Smellie, A. (2006). Hypertriglyceridaemia in diabetes. 333(1257). doi:10.1136/bmj.39043.398738.DE.
10. Beverly, J. K., & Budoff, M. J. (2020). Atherosclerosis: Pathophysiology of insulin resistance, hyperglycemia, hyperlipidemia, and inflammation. 12(2). doi:10.1111/1753-0407.12970