# Success of the Medicare Diabetes Prevention Program

## CMMI and the Design of MDPP

The clinical intervention at the core of the MDPP predates the creation of CMMI. Nonetheless, the authority granted to CMMI by the Affordable Care Act (ACA) was instrumental in the testing and eventual expansion of the intervention as a permanent part of the Medicare program.

- **Identifying the Need**: Medicare has traditionally covered type 2 diabetes education and self-management training, but only for those beneficiaries who already had the condition. Medicare did not cover this benefit for prediabetic individuals and used CMMI authority to test the potential impacts of such a benefit on the cost and quality of care.
- **The Test:** The MDPP started in 2013 as part of the first round of CMMI Health Care Innovation Awards. The intervention was tested as a pilot program implemented by the YMCA of the USA (Y-USA).
- **Focus on Community Training and Capacity Building:** Between February 2013 and March 2015, the Y-USA in partnership with seventeen local YMCAs, the Diabetes Prevention and Control Alliance, and seven other leading national non-profit organizations, enrolled 6,874 Medicare beneficiaries at high risk for diabetes into the program.
- **The Results:** Evaluation results showed reductions in inpatient hospital admissions and fewer Emergency Department visits for model participants, providing the evidence needed to pursue model certification and expansion under CMMI authority.

The Medicare Diabetes Prevention Program (MDPP) is one of two Center for Medicare and Medicaid Innovation (CMMI) models to be certified by the Centers or Medicare and Medicaid Services (CMS) Office of the Actuary (OACT) and determined by the secretary of Health and Human Services to have met the statutory criteria for expansion under 1115A of the Social Security Act – the other being the Pioneer ACO model. The MDPP program is built around a Centers for Disease Control and Prevention (CDC) approved clinical intervention designed to prevent individuals diagnosed with prediabetes from developing type two diabetes through lifestyle change.

The primary goal of the expanded model is at least a five percent weight loss by participants. The MDPP intervention consists of a minimum of 16 intensive "core" health education sessions delivered in a classroom-style setting. These sessions are offered over a six-month period and focuses on promoting long-term dietary change, increasing physical activity, and long-term behavior change strategies for weight control. After the completing the core sessions, Medicare beneficiaries participate in less intensive monthly follow-up meetings designed to help participants maintain healthy behaviors.

The program pays Medicare suppliers to deliver twelve months of core sessions to beneficiaries who have been diagnosed with prediabetes and an additional twelve months of ongoing maintenance sessions to help them meet and maintain weight loss goals. Payment is performance-based with amounts linked to the beneficiary's attendance and ability to meet their weight loss goals.

COVID-19 precipitated several temporary changes to MDPP including expanding options for virtual participation and waiving once per lifetime benefit limit. These changes make it easier for

**A major challenge in evaluating prevention programs is the often-lengthy delay between the initial intervention and the full benefits. The demonstrated long-term successes of the diabetes prevention program warrants a renewed discussion within CMS on strategies for evaluating the impacts of CMMI prevention focused models that extend beyond the model performance period.**

## Impact of Diabetes Prevention Programs

The CMS Office of the Actuary considered the 2015 CMMI evaluation and long term studies of the lifestyle intervention for diabetes, including a seminal 2015 report on the long-term impacts of a similar diabetes prevention program pilot started in 1996, in their memo certifying the MDPP program for expansion. The CMMI evaluation found that the MDPP demonstration resulted in:

- **Smarter Spending**: The model was associated with a statistically significant reduction in Medicare spending during the testing period reducing health care expenditures among the study population by $1.8 million (gross savings of $2,650 per person) across five quarters. The findings were the basis for OACT's certification that the model met the criteria for expansion into a permanent Medicare program.
- **Better Care**: The model was associated with a statistically significant reduction in hospitalizations and emergency department visits.
- **Healthier People:** Average weight loss shown in the 12th quarterly report was 4.73 percent for participants attending at least four core sessions and 5.17 percent for participants attending at least nine sessions. Of participants attending at least four core sessions, 44 percent reached the five percent weight loss target.

In 2020, the American Diabetes Association released a report updating the 2015 long-term study reviewed by OACT. The report followed up with 2,000 participants in the 1996 randomized clinical trial comparing a lifestyle intervention to usual care with medications (metformin) to prevent or delay the progression of prediabetes to type 2 diabetes. The report found:

- Prevention effects in the original lifestyle group and metformin treatment group remain 22 years after the start of the study with a 25% and 18% reduced risk of diabetes development, respectively, compared with the original placebo group.
- Those participants who did not develop diabetes had a significant 57 percent (lifestyle) and 37 percent (metformin) lower risk of developing early changes of eye and kidney disease, respectively, and a 39 percent lower risk of major cardiovascular disease endpoints, such as heart attacks and stroke.
- The intensive lifestyle intervention group had a long-term reduction in the development of frailty.

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