CASE STUDY

Managing social determinants of health with the Diabetes Care Coach program

Patients living with diabetes juggle an overwhelming number of responsibilities – monitoring blood glucose, eating healthy, exercising regularly, and in many cases managing multiple medications. Many patients also face challenges related to social determinants of health (SDOH), non-medical factors that impact patients' health, medication use, and health outcomes. Food and housing insecurity, unemployment, and budget constraints can have compounded negative effects, making it even more difficult for patients to successfully manage their health.

Diabetes Care Coach Program at UMass Memorial Medical Center

In June of 2021, Shields Health Solutions and UMass Memorial Medical Center launched the Diabetes Care Coach Program. Designed to elevate the care of at-risk, difficult-to-engage patients living with diabetes, the program provides individualized, comprehensive medication management and lifestyle support as a supplement to the care they receive from their existing clinical team.

The goal of the program is to improve clinical outcomes including, but not limited to A1C, hospital/ER utilization, and medication adherence.

HOW THE PROGRAM TARGETS SDOH

As part of the program, Diabetes Care Coaches (who are licensed clinical pharmacists and CDCESs with specialized training in ambulatory care and medication management) regularly engage patients with SDOH challenges using the Medical Center's SDOH screening tool. Frequent contact and individualized care mean the Care Coaches are well positioned to develop close clinical relationships with their patients, who then feel comfortable enough to confide in their Coaches about those non-medical, social stressors that make it difficult to prioritize their health.

The graphic below illustrates the SDOH needs that Coaches have identified most frequently with the screening tool.

TOP SDOH AREAS OF ASSISTANCE

Mental health and stress top the list; Care Coaches often refer patients to behavioral psychologists or community health organizations. Next is budget strain, which highlights the need to find financial assistance, and housing, which can mean lack of housing, impending eviction, or risk of becoming unhoused.

MELISSA'S STORY

Melissa was referred to the Care Coach Program in June of 2021, just as it launched. Her diabetes had been poorly controlled for more than 13 years. Medication adherence was poor, motivation was low, and she felt very discouraged with her treatment plan.

After Melissa's Coach explained the benefits of each medication and the two worked together to determine the best time of day for Melissa to take them, her adherence improved significantly—to the point that she needed fewer medications. Additional discussions about nutrition and how to pair foods for optimal blood glucose response helped Melissa begin to feel more empowered in managing her diabetes.

After three months, Melissa was able to bring her A1C down from 9% to 6.2%, and she has been able to sustain this reduction for almost two years.

Eventually, thanks to a close relationship with her Coach, Melissa felt comfortable raising a significant housing concern: her landlord was selling the property, and Melissa was struggling to find a new place to live. Utilizing the SDOH screening tool and Community Help platform – a database of community resources in the Worcester, MA area – Melissa's Coach was able to find local organizations that Melissa could contact for assistance.

Better still, the Coach discovered that Melissa was eligible for a case manager through the MassHealth Integrated Care Management Program. Melissa's Coach submitted a referral, and Melissa now has a case manager who has lined up financial assistance and is helping Melissa find a new home.

If not for regular care and encouragement from her Coach, and the trust that was built through the coaching process this concern might have gone unspoken. Instead, Melissa felt empowered to seek out help, trusting that her Coach would support her in navigating this non-medical dimension of her care.

CARE COACH OUTCOME MEASURES

Melissa's improved outcomes are dramatic, but not unique. The chart below shows the overall A1C reduction and adherence results during the pilot study of the Diabetes Care Coach Program at UMass Memorial Medical Center.

METRIC	OUTCOME
Average 3-month A1C change	**-1.7**
Average 6-month A1C change	**-2.4**
Average adherence rate (PDC)	**95%**

80% of health outcomes are driven by non-clinical factors

SOCIAL AND ECONOMIC FACTORS 40%

- Education
- Employment
- Income
- Family & Social Support
- Community safety

PHYSICAL ENVIRONMENT 10%

- Housing and Transit
- Air and Water Quality

HEALTH AND BEHAVIORS 30%

- Tobacco
- Diet & Exercise
- Alcohol & Drug Use
- Sexual Activity

HEALTH CARE 20%

- Access to Care
- Quality of Care
- Provider linguistic & cultural competency