

Transforming chronic disease management with the Sanofi | Dario digital health solution

MedOne: A PBM that prioritizes whole-health member care

The health care landscape is experiencing a tremendous shift as the prevalence of chronic diseases continues to rise. With an aging population, sedentary lifestyles, changing environmental factors, and rising costs, there is a greater need for successful, innovative, and scalable solutions to manage chronic diseases. The ramifications of these conditions extend beyond individuals, exerting substantial strain on health care systems and accounting for 90% of the nation's \$3.8 trillion in annual health care costs.² Health care costs for diabetes, one of the most common chronic diseases, are 2.3 times higher than for those without the condition.² Moreover, individuals with one chronic condition may be more likely to develop additional comorbidities, especially as they age, and may have concomitant risks, such as tobacco use and poor nutrition.²

By 2060, the number of US adults with diagnosed diabetes is expected to nearly triple to 60.6 million (17.9%)¹

Traditional treatment approaches for chronic diseases often prioritize therapies that lack consideration for a patient's unique characteristics and lifestyle, resulting in disengagement in their own health care. The focus tends to be on delivering prescription treatments and instructions to patients, expecting them to passively follow medical recommendations without actively participating in decision-making or taking ownership of their health.³

Although successful chronic disease management is linked to strong patient engagement strategies, these strategies are not consistently adopted. Shared decision-making among patients and providers is infrequent, with just half of physician practices routinely using engagement strategies.⁴ Limited patient engagement has been associated with higher mortality rates, increased complications, hospital readmissions, and infections.⁵

Though the concept has varied over time, patient engagement refers to patients with the desire and capability to actively choose to participate in their care in a way that works best for their individual needs.⁶ Patients who take an active role and hold themselves accountable for their health are more likely to integrate treatments into their daily routines. They are also more likely to adhere to their treatment plan, keep track of their health, ask their providers questions, have fewer hospitalizations and emergency department visits, and seek preventive care.^{7,8} In one piloted care model studying heart failure, patients who were engaged in their health care experienced a 15.6% decrease in emergency department visits, an 11.6% decrease in hospital admissions, and a 41.8% decrease in all-cause mortality rates when compared with patients who were not engaged.⁹

Patients who are actively involved in their health care tend to incur 8.3% lower costs than those who are less engaged¹⁰

Having the confidence to engage in their health care can also lead to better outcomes, including reduced health care spending and meeting clinical quality benchmarks.^{4,7} Closing care gaps has been an important goal across stakeholders, and health plans have attempted to do so by engaging patients through various strategies, with limited success.

Effective diabetes management strategies such as self-monitoring of blood sugar levels 3 times a day costs \$3700 per quality-adjusted life year (QALY) compared with self-monitoring once a day for patients with type 2 diabetes on insulin¹¹

Digital health solutions can play an important role to proactively and comprehensively engage individuals with chronic conditions to better manage their care.¹² Effective management can involve consistent monitoring and lifestyle changes, in addition to medication adherence, though robust digital solutions typically include the following features¹²:

- Providing personalized coaching and support
- Offering patient education opportunities and resources
- Involving payers and providers to identify adherence and engagement statistics
- Improving provider and patient communication by continuously updating data through medical devices

Patients using digital health solutions are approximately 30% more adherent to those solutions than to pharmacotherapy alone¹³

MedOne is a pharmacy benefit manager (PBM) that provides services to clients and members in all 50 states. Unlike traditional PBMs, MedOne passes all upside through to the client and ties their performance to minimum savings guarantees, while providing best-in-class member services experience. They identified a crucial need to interact with patients with diabetes early on, as diabetes has consistently been their most significant expense beyond specialty drugs, emphasizing the need for cost-effective interventions. MedOne formerly offered its Diabetes Management Program as a drug therapy care pathway for prescribing physicians. However, they recognized that effective diabetes management goes beyond medication guidelines and instead looked for a patient-facing, whole-health intervention.

Initial digital solutions were still in their early stages, which led to limited user experience. As a result, MedOne took advantage of its upcoming request for proposal (RFP) period in June 2022, and solicited proposals from other digital vendors who could provide greater engagement, reporting, and data integration capabilities. In the past few years, strong digital entrants from reputable companies have evolved significantly to become more patient-inclusive.

Digital roads that lead to DarioHealth

Sanofi, with 100 years of experience as an innovative health care company, is committed to integrating health care and technology to change the course of chronic diseases.¹⁴ To achieve this, they have partnered with DarioHealth, aiming to help change patient behavior through a whole-health approach. By combining health care expertise with advanced technology, more members can now access effective solutions that can improve outcomes and lower health care costs.

Dario has a member retention rate of 80% at 12 months of use¹⁵

With Dario, members have access to what they need to adopt healthier behaviors and better manage their condition. Members use Dario's connected Blood Glucose Monitoring System, a smart, pocket-sized device, to record clinical measurements in the Dario app. Dario analyzes the clinical data alongside engagement and behavioral data to personalize the digital experience across content, tools, and trackers, to keep members engaged and on track. Members can also share results with providers and alert friends and family in the event of a hypoglycemic event. Users also benefit from Dario's patient coaching capabilities, including one-on-one human and digital support as well as 24/7 access to the platform, resulting in a highly individualized approach.¹⁵

With Dario, members have access to what they need to adopt healthier behaviors and better manage their condition. Members use Dario's connected Blood Glucose Monitoring System, a smart, pocket-sized device, to record clinical measurements in the Dario app. Dario analyzes the clinical data alongside engagement and behavioral data to personalize the digital experience across content, tools, and trackers, to keep members engaged and on track. Members can also share results with providers and alert friends and family in the event of a hypoglycemic event. Users also benefit from Dario's patient coaching capabilities, including one-on-one human and digital support as well as 24/7 access to the platform, resulting in a highly individualized approach.¹⁵

MedOne has consistently used health coaches to engage patients, primarily through phone-based efforts. However, this approach could not engage all members. With Dario, members engage with their health coach through secure, 2-way messaging alongside digital coaches who provide active ways of encouraging members to achieve their care goals.

The evidence behind Dario

Demonstrating efficacy is crucial to show that the use of digital health solutions can improve patient outcomes, minimize adverse events, and help manage chronic conditions. Sanofi has conducted multiple studies to evaluate the efficacy of Dario's digital health solution in providing whole-person care.

1 Study Design^{16a}:

- Dual-arm study (users vs non-users)
- Retrospective cohort study
- User and non-user cohorts were sequentially matched 1:3 using exact and propensity score matching
- n=568 for users; n=1699 for non-users

Primary endpoint: change in HbA1c from baseline to 6 months

Results:

A **45% HbA1c <8% was observed in Dario Diabetes Solution (DDS) users** without increased risk of severe hypoglycemia compared with 36.1% for non-users.

2 Study Design^{17a}:

- Dual-arm study (users vs non-users)
- Retrospective cohort study
- User and non-user cohorts were sequentially matched 1:3 using exact and propensity score matching
- n=2445 for users; n=7334 for non-users

Primary endpoint: all-cause health care resource utilization (HCRU) (inpatient hospitalizations and emergency room visits) rates during the follow-up period

Results:

A **9.3% all-cause HCRU rate** and a **23.5% lower inpatient hospitalization rates were observed for DDS users** compared to non-users.

Limitations: Given the retrospective study design, limitations include potential residual confounding differences between groups. The study overall had a methodology of exact and propensity score matching.

Defining success

It was important that MedOne could articulate results to their clients and validate that Dario could make a difference for their members with diabetes. With Dario, MedOne intends to review multiple metrics that show changes in HbA1c, blood glucose levels, and weight alongside demonstrated use of the application. MedOne plans to aggregate Dario's information with their own data from their provider intervention and emphasized that the goal is to find engagement across a multitude of means. Additionally, MedOne will review HbA1c measures over the next 12 to 18 months to determine the long-term success of Dario for their members.

MedOne leveraged their digital health expertise to issue an RFP that outlined the most valuable enhancements for their suite of services:

Foundational Features

Product/device: ease of use across a diverse member population with varied health literacy

Performance: coaching aspect

Reporting: multiple metrics that show member engagement and benefit

Data integration: the ability for members to import their information on to the platform even when using their external EGM device

Value-Add Benefits

Increased member engagement and satisfaction

Low-effort scalability into additional disease areas to support a larger number of plan members

Best-in-class solution with an integrated EGM device

Value-focused pricing leading to improved return on investment

EGM=electronic glucose monitoring.

MedOne, a PBM that serves a diverse patient population, found Sanofi to be an ideal partner because of its strong focus on patient care and longstanding dedication to diabetes management. MedOne was impressed by Sanofi's level of commitment, which exceeded their expectations. Even though MedOne has clients with varying needs, they found the Dario solution to be an ideal fit for their members. During the contracting process, Dario provided MedOne with best practices and recommendations tailored to their unique population challenges and solution set. These adaptable best practices were implemented early on to ensure a successful launch, with collaboration between both parties to minimize effort while maximizing strengths.

It usually takes between 60 to 90 days for the Dario platform to be fully operational, with Dario taking charge throughout the process. MedOne valued Dario's skill in connecting technological advancements with entire populations by providing intermediate engagement options to those willing to interact with the AI-driven component. This allows patients to choose the option that fits them best. Though MedOne decided to offer the Dario solution as part of their suite of diabetes services, they recognized that chronic conditions often occur together. This presents an opportunity to potentially expand their partnership to include other metabolic conditions as well as mental health care and musculoskeletal solutions.

The Sanofi | Dario Difference

We understand and are aligned with your objectives.

Focus on unmet needs:

An investment in therapies that address chronic disease management.

Credible evidence:

A commitment to partnering with companies that have evidence-based solutions and generating evidence aligned to payer needs.

Account partnering:

A vast footprint and expertise creates trusting, valuable partnerships.

Digital-ready infrastructure:

A partnership to collaboratively scale capabilities to meet whole-health care.

To learn more about innovation in digital health,
please visit digitalhealthcaresanofi.com

References: 1. Lin J, Thompson TJ, Cheng YJ, et al. Projection of the future diabetes burden in the United States through 2060. *Population Health Metrics*. 2018;16:9. 2. Hoffman D. Commentary on chronic disease prevention in 2022. National Association of Chronic Disease Directors. Accessed July 6, 2023. https://chronicdisease.org/wp-content/uploads/2022/04/FS_ChronicDiseaseCommentary2022FINAL.pdf 3. Krist AH, Tong ST, Aycock RA, Longo DR. Engaging patients in decision-making and behavior change to promote prevention. *Stud Health Technol Inform*. 2017;240:284–302. 4. Miller-Rosales C, Brewster AL. Multilevel influence on patient engagement and chronic care management. *Am J Manag Care*. 2023;29(4):196–202. 5. Bartlett W. The hidden cost of poor patient engagement in health care. Intelichart. Accessed June 26, 2023. <https://www.intelichart.com/blog/the-hidden-cost-of-poor-patient-engagement#:~:text=Poor%20Health%20Outcomes&text=When%20patients%20are%20not%20directly,%20C%20hospital%20readmissions%2C%20and%20infections> 6. Heath S. How can health care professionals define patient engagement? Patient Engagement HIT. Accessed July 6, 2023. <https://patientengagementhit.com/news/how-can-healthcare-professionals-define-patient-engagement> 7. Heath S. How patient engagement supports chronic disease management. Patient Engagement HIT. Accessed June 26, 2023. <https://patientengagementhit.com/features/how-patient-engagement-supports-chronic-disease-management> 8. Marzban S, Najafi M, Agolli A, Ashrafi E. Impact of patient engagement on health care quality: a scoping review. *J Patient Exp*. 2022;9:1–12. 9. Murali NS, Deao CE. Patient engagement. *Prim Care*. 2019;46(4):539–547. 10. Lindsay A, Hibbard JH, Boothroyd DB, Glaseroff A, Asch SM. Patient activation changes as a potential signal for changes in health care costs: cohort study of US high-cost patients. *J Gen Intern Med*. 2018;33:2106–2112. 11. Health and economic benefits of diabetes interventions. Centers for Disease Control and Prevention. Accessed July 6, 2023. <https://www.cdc.gov/chronicdisease/programs-impact/pop/diabetes.htm> 12. Adatia C, Dreischmeier R, Shah S, Sharma K. The health benefits and business potential of digital therapeutics. McKinsey & Company. Accessed June 30, 2023. <https://www.mckinsey.com/industries/life-sciences/our-insights/the-health-benefits-and-business-potential-of-digital-therapeutics> 13. Wang C, Lee C, Shin H. Digital therapeutics from bench to bedside. *NPJ Digit Med*. 2023;6(1):38. 14. Sanofi. Diabetes. Accessed August 18, 2023. <https://www.sanofi.com/en/your-health/medicines/diabetes> 15. DarioHealth. Accessed June 30, 2023. <https://www.dariohealth.com/> 16. Thingalaya N, Kerr D, Potukuchi P, et al. Use of digital diabetes solution is associated with improved glycemic control without increased risk of severe hypoglycemia in adults with type 2 diabetes mellitus in the United States: retrospective cohort study. Poster. Presented at: ADA. June 23–26, 2023. 17. Wilson L, Malone D, Potukuchi P, et al. Comparison of all-cause health care resource utilization rates between patients with type 2 diabetes who use a digital diabetes solution versus non-users: a 12-month retrospective cohort study. Poster. Presented at: ISPOR May 7–10, 2023.

