

Closing Care Gaps:

How Artificial Intelligence
is Helping to Transform
Diabetes Care Management



Diabetes is a chronic condition that affects more than 34 million adults in the United States.¹ Historically, care management approaches have failed to recognize that individuals respond uniquely to different health interventions, let alone identify the ones that drive better health outcomes while also delivering value throughout the health care system. But by using artificial intelligence (AI), we can now interpret data in a way that serves as the foundation for a more personalized approach to diabetes care management.

CVS Health is ideally positioned to help support the enormous potential for better, more efficient care in diabetes because our capabilities extend well beyond digital offerings. The omnichannel approach aims to support effective and personalized care. With advanced data and analytic capabilities, customized communications and a broad set of channels, it's possible to have an overarching view of member needs and the most impactful interventions to address them.

“Each member with diabetes brings their own unique set of issues — social, psychosocial, biological — and other contextual issues that make the delivery of care challenging to begin with. Every patient has unique needs.”

*– Dan Knecht, MD, MBA,
Vice President of Clinical Product,
CVS Health*



The diabetes care solution for each member's needs

It's now possible to create one-to-one connections with members. For CVS Health specifically, the analytics engine analyzes member data and determines an appropriate level of support for that specific member, then recommends different levels of outreach based on the individual clinical situation and the severity of the patient's condition. Some members will need "high touch" support, with personal, live and in-person engagement at a CVS Pharmacy, CVS HealthHUB or MinuteClinic location, or over the phone from the care management team.

Every communication touchpoint for members is focused on a specific opportunity and based on the underlying data, along with that member's communications preferences. Each additional channel available to reach members provides additional opportunities to CVS Health, because each enhances learning about individual members and how they want to be engaged.

The use of multiple channels for outreach to support greater member engagement and improved quality of care provides a unique advantage.



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The diabetes care management three-step process

The program, unique to CVS Health, meets members wherever they are in their health journey to improve their health and reduce overall costs. Using a variety of data inputs, we are able to leverage technology to create a truly custom member experience.

1 Member identification

Using multiple sources of data, we create a comprehensive view of each member:



Rx claims, medical claims, lab results, blood glucose and A1C data, blood pressure readings, demographics and social determinants of health



Continued updates to the data points ensures that each view is current

2 Customized interventions

We combine data, AI and clinical resources to pinpoint personalized next best actions for each member:



Identifies and prioritizes gaps in care for members with complex conditions based on clinical guidelines



Using AI, we estimate the impact of care gap opportunities for each member



Activating our ecosystem, we use an omnichannel approach to identify prioritized gap-in-care opportunities, optimize engagement and meet members where they are



Learning about what works best for each member feeds back into the process, constantly enhancing the individualized experience

3 Member impact

Using insights, we monitor member results and measure improved health outcomes for individuals:



Helps optimize member engagement



Helps reduce gaps in care



Helps reduce A1C and blood pressure

The diabetes care management solution in action

Using the model above, here are some examples of how diabetes care management can work for members:



Alice
FEMALE, 26

Alice is managing her diabetes, but hasn't kept up on her annual screenings. Doing so will reduce the possibility of developing a more complex condition along with comorbidities.

Alice has controlled diabetes with an A1C of **7.9**.

The process identifies one gap-in-care category for Alice:



SCREENING



Eleanor
FEMALE, 49

Eleanor hasn't actively been managing her diabetes, but with reminders about gaps in care, she can get back on track.

Eleanor has uncontrolled diabetes with an A1C of **12.11**.

The process identifies four gap-in-care categories for Eleanor:



SCREENING



MEDICATION
OPTIMIZATION



MEDICATION
ADHERENCE



SELF-MONITORING
OF BLOOD GLUCOSE

Because each individual has different needs, their journeys will be different. By closing each member's gaps in care, we can lower the likelihood of developing costly comorbidities.

5 clinical areas of impact

Other diabetes and comorbidity management programs — where digital channels but not in-person ones are available — are typically anything but customized. Instead, they are “one size fits all,” offering the same intervention for every member, regardless of individual circumstances. Further, these approaches are limited to only two broad clinical areas: blood glucose monitoring and lifestyle and comorbidity management. These clinical areas are used for all members, whether they are controlling their diabetes or not.

A member might not need monitoring or lifestyle coaches based on their unique profile. Members receive support and the interventions they need, not unnecessary recommendations.

In the real world, each member has different needs and requires different (or even no) interventions.

As internal analysis points out: “The next best intervention expected to yield the highest impact on diabetes control is highly dependent on member features including comorbidity profiles, treatment adherence and lifestyle factors.”²

Our diabetes care management solution provides a machine learning and game theory combinatorial method “to identify which clinical features and gaps in care are most influential in controlling [A1C] on a member level, i.e., their next best actions to control their health.”² Building on this foundation, the program offers a thorough set of interventions to help members manage diabetes more effectively.²

Unlike typical approaches, our program operates across five clinical areas instead of only two:



Blood glucose monitoring



Lifestyle and comorbidity management



Guideline-driven screenings



Adherence to medication



Taking the right medication



Closing gaps in care

But it's what happens next that really sets the program apart. Based on AI-generated insights into these five clinical areas, the program helps identify specific next best actions to each member.

These interventions are not just digital but include face-to-face pharmacist and care team consultations and all-remote support, including email, text and telephone.

Whether in person at a CVS HealthHUB or MinuteClinic location (or virtually at a MinuteClinic) or CVS Pharmacy location, on the phone or in person with a certified diabetes nurse, or through any of the digital touchpoints available through the tracker app, members with diabetes receive multiple targeted nudges with information about gaps in care opportunities.

And these five areas are where gaps in care occur. According to a recent CVS Health analysis, 69 percent of members have two or more gaps in care: 70 percent have an open lifestyle and comorbidity gap (i.e., need help with nutrition, exercise or other areas), 58 percent do not get screenings, 28 percent do not have an optimal medication regimen, 11 percent could benefit from testing blood glucose, and 10 percent show suboptimal adherence to their medication regimens.

Interim results suggest that the diabetes care solution drives statistically significant incremental behavior change, with the program seeing 27 percent incremental gap closure for commercial members.*

Program results:



2:1
guaranteed
return on
investment



1.9%
average A1C
reduction



Up to
15 mm/Hg
reduction in
systolic blood
pressure

Closing these gaps saves time, money and resources, enabling the program to focus on the highest-impact interventions while supporting comprehensive, appropriate care for every single diabetes patient.

Looking forward to more moments of health

These positive interim results show the promise of our diabetes care solution — and of AI properly applied — to have impact in helping members close gaps in care when it comes to complex conditions like diabetes (and comorbidities).



Insights into next best actions by themselves are not sufficient through digital channels alone to make a difference. But when coupled with an extensive ecosystem of in-person and digital channels, these insights can more effectively help engage members to take the actions needed to close costly gaps in their diabetes care. And this is just the beginning.



Learn more about our diabetes care solution and other innovative approaches to reduce health care spending.

1. <https://www.cdc.gov/diabetes/pdfs/data/statistics/national-diabetes-statistics-report.pdf>.
2. "Next Generation Transform Diabetes Care (ngTDC): April 2021 Interim Analysis," Lauren Lamonica, Paul Raff, Molly Srou, Noga Neeman, Eugenio Zuccarelli, Brian Lynch, and Eli Goldberg. Aetna Research, 2021, p. 1.

*In pilot, subgroup analysis of the first group of participants outreached, intervention group compared to matched group of non-participants, where six months of data are available. CVS Health Analytics, 2022. Data from Commercial group members using TDC since 2021 January program expansion. All data sharing complies with applicable law, our information firewall and any applicable contractual limitations. Actual results may vary depending on benefit plan design, member demographics, programs implemented by the plan and other factors.

The source for data in this document is CVS Health Enterprise Analytics, unless otherwise noted.

The Transform Diabetes Care program is designed to combine customized diabetes support and clinical care for members with cost management strategies to reduce trend for diabetic drugs; projected savings and guarantee will vary by client, plan population's demographics, other programs implemented by the client, current spending on diabetic drugs, and other factors.

CVS Health uses and shares data as allowed by applicable law, and by our agreements and our information firewall.

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