



WHITE PAPER

How Specialty Pharmacy Can Drive Better Outcomes in Diabetes

The growing costs of the diabetes epidemic in the U.S. are staggering. Over 37 million Americans – around 11% of the population – now have diabetes, and according to a recent study, over 60 million Americans are expected to have the disease by 2060.¹ The American Diabetes Association estimates the total annual cost of diabetes in the U.S. to be \$327 billion, with billions being added to this estimate every year.² These realities pose an enormous challenge to U.S. healthcare, particularly in light of the fact that only 26% of adult diabetes patients in the U.S. are meeting their core care goals of blood sugar control, blood pressure, cholesterol and smoking cessation.³

American Diabetes Association

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THE NUMBER OF PATIENTS DIAGNOSED WITH DIABETES IS EXPECTED TO EXCEED 60 MILLION BY 2060

As leading providers of a high-touch integrated care model, health system specialty pharmacies can play a vital role in improving diabetes care outcomes as well as reducing costs associated with this population. For health systems with robust population health and value-based care strategies, leveraging every tool at their disposal - including specialty pharmacy – has become an imperative. By significantly simplifying care for diabetes patients and ensuring strong medication adherence, specialty pharmacy can markedly improve the quality of life for this population, while placing patients on a trajectory to long-term health.

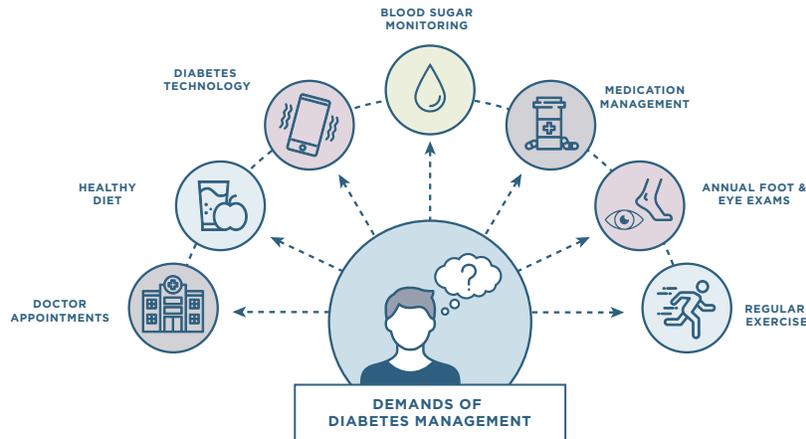
DIABETES OVERVIEW AND CHALLENGES TO CARE

Diabetes is a chronic disease caused by a deficiency in the production of, or from resistance to, insulin, a hormone needed to transport glucose from the blood into the body's cells. In Type 1 diabetes, the body does not produce insulin while in Type 2 diabetes, the body does not utilize insulin properly.⁴

ADHERENCE CHALLENGES IN DIABETES

Lack of adherence to medication is a major challenge to diabetes management, and adherence to oral hypoglycemic agents runs as low as 36% by some measures.

Diabetes can be an extremely complex disease to treat and manage, posing serious challenges for patients. Most diabetes patients also manage two or more chronic conditions in addition to their diabetes.⁵



On top of having to manage numerous medications, diabetes patients must continuously monitor their blood sugar (either with a glucometer or continuous glucose monitor), sustain a healthy diet and exercise regimen, undergo annual foot and eye exams, and maintain positive mental health and strong motivation, among other obligations. Often, patients also have to work with more than one pharmacy or durable medical equipment (DME) supplier to obtain all of their medications and supplies. Each of these demands pose increasing challenges to effective diabetes management and can distract a patient from a core care responsibility: taking medications regularly.

Lack of adherence to medication is a major challenge to diabetes management in the U.S. Adherence to oral hypoglycemic agents runs as low as 36% by some measures and insulin adherence rates among patients with Type 2 diabetes hovers between 62-64%.⁶

A primary driver of adherence challenges in diabetes is affordability of medications. The cost of living with diabetes can exceed \$4,800 annually in out-of-pocket costs and one in four insulin-dependent Americans report rationing their insulin supply due to financial difficulty.⁷ Non-adherence can have a direct impact on glycemic control and hospitalizations, which in turn drives up costs and capacity challenges for health systems.⁸ When considering that high engagement care models integrated with the providers and EMR, like those used in specialty pharmacies, can bring medication adherence in excess of 90% for chronically ill patients, expanding your health system specialty pharmacy into diabetes can address a critical unmet need.

HOW A SPECIALTY PHARMACY CARE MODEL CAN HELP

Diabetes patients can encounter a range of challenges when attempting to fill at conventional retail or mail order pharmacy: test claims can be processed incorrectly, prior authorizations delayed, financial assistance needs may go unaddressed, prescription delivery poorly coordinated, and the burden of remembering refills placed solely on the patient.

1 in 4
Insulin-dependent Americans report rationing their insulin supply due to financial difficulty

Each of these potential hurdles can delay or in some cases even prevent a diabetes patient from obtaining and taking their medication on time.

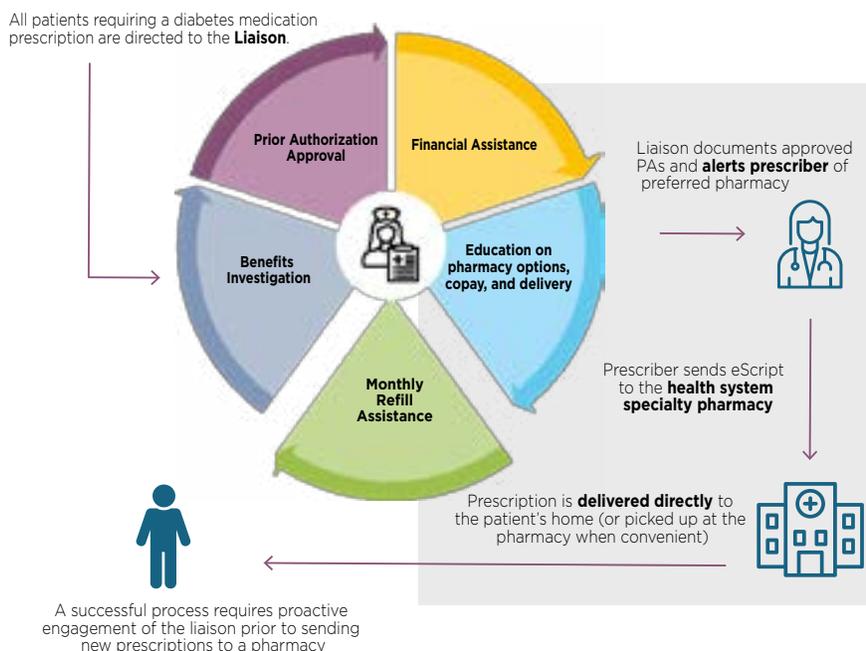
The Shields specialty pharmacy care model is designed to provide high-touch, high-quality care and ensure a seamless patient experience when starting or refilling a diabetes medication as well as significantly reduce the administrative burden of medication management for providers and clinic staff. In collaboration with our health system partners, Shields embeds highly trained pharmacy liaisons into endocrinology and primary care clinics where most diabetes patients receive their care.

Common Barriers To Care	CONVENTIONAL PHARMACY	SHIELDS SPECIALTY PHARMACY
PRIOR AUTHORIZATION >	Often delayed	✓ Addressed in 2 Days
FINANCIAL ASSISTANCE >	Often not investigated	✓ Always Investigated
MEDICATION REFILLS >	Burden falls on patient	✓ Monthly Refill Calls
DURABLE MEDICAL EQUIPMENT >	Partial Capability	✓ One-stop Solution

These pharmacy liaisons help remove the administrative burden of benefits investigations, prior authorizations, financial assistance, and refill management from the clinic. To support the growing number of patients who rely on technology to manage their diabetes, Shields also helps its partner pharmacies expand their services into diabetic Durable Medical Equipment (DME), which can include everything from glucometers and test strips to Continuous Glucose Monitors (CGMs) and insulin pump supplies, so that patients can obtain everything they need from one pharmacy.

HIGH TOUCH, HIGH QUALITY

The Shields specialty pharmacy care model ensures a seamless patient experience when starting or refilling a diabetes medication and significantly reduces the administrative burden of medication management for providers and clinic staff.



In contrast to conventional retail and mail order pharmacies that often use automated calls or texts to remind patients when it's time to refill their prescription, Shields pharmacy liaisons directly contact patients on a monthly basis to discuss and coordinate delivery of their medication and supplies to ensure adherence to a patient's current regimen. Additionally, pharmacy liaisons can also serve as a bridge between patient and provider, leveraging their presence in the clinic and access to the EMR to ensure that any patient questions are addressed quickly and without interruption to care. Ensuring that patients receive exactly what they need when they need it helps keep patients adherent to their medication and conveys to the patient that their pharmacy cares about their well-being.

Given the significant workload associated with diabetes medication management in endocrinology and primary care clinics, the Shields care model allows providers and clinic staff to reallocate their time away from pharmacy-related administrative work and invest more time into patient care. Since specialty pharmacies are often more attune to the pipeline of new medications and technologies, our programs provide prescribers with the option to fill the latest diabetes treatments without delay.

DIRECT TOUCH POINTS, IMPROVED ADHERENCE

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CHALLENGES TO EXPANDING INTO DIABETES FOR HEALTH SYSTEM SPECIALTY PHARMACIES

For some specialty pharmacies, the prospect of expanding into diabetes can be daunting, particularly if your pharmacy already struggles with space and/or staff limitations. There may be concerns around how to sustain service for such a large population of patients, as more and more will likely choose to fill with your specialty pharmacy each year. Moreover, specialty pharmacy managers may worry about the cost and capacity implications of filling supportive medications and/or DME for this population.

Since 2018, Shields has worked closely with health systems to successfully overcome these challenges, carefully staging the volume of diabetes patients they support in a way that gradually strengthens and grows the health systems' pharmacy operations. Shields staff works hand-in-hand with health system specialty pharmacy operations and managers to ensure that they and their staff are equipped with the knowledge and infrastructure to provide best-in-class pharmacy service to diabetes patients.

For health systems interested in expanding into diabetic DME, Shields works with Medicare, Medicaid and commercial payers to ensure that health system specialty pharmacies can easily service these supplies for their patients. Finally, Shields leverages its in-house data analytics capabilities to ensure that we are utilizing outcomes data to continually deepen our clinical impact for diabetes patients, ensuring our partners make data driven decisions to better manage this dynamic patient population.

IN-HOUSE DATA ANALYTICS

Ensure that we are utilizing outcomes data to continually deepen our clinical impact for diabetes patients. This helps our partners make data driven decisions to better manage this dynamic patient population.

OUR IMPACT

ADDRESSING AFFORDABILITY

The Shields care model has brought average annual out-of-pocket costs to \$225, more than 50% lower than the national average.

Shields high-touch approach to specialty pharmacy care has resulted in industry-leading outcomes in diabetes. Across our health system partners with diabetes programs, Shields has been able to bring:

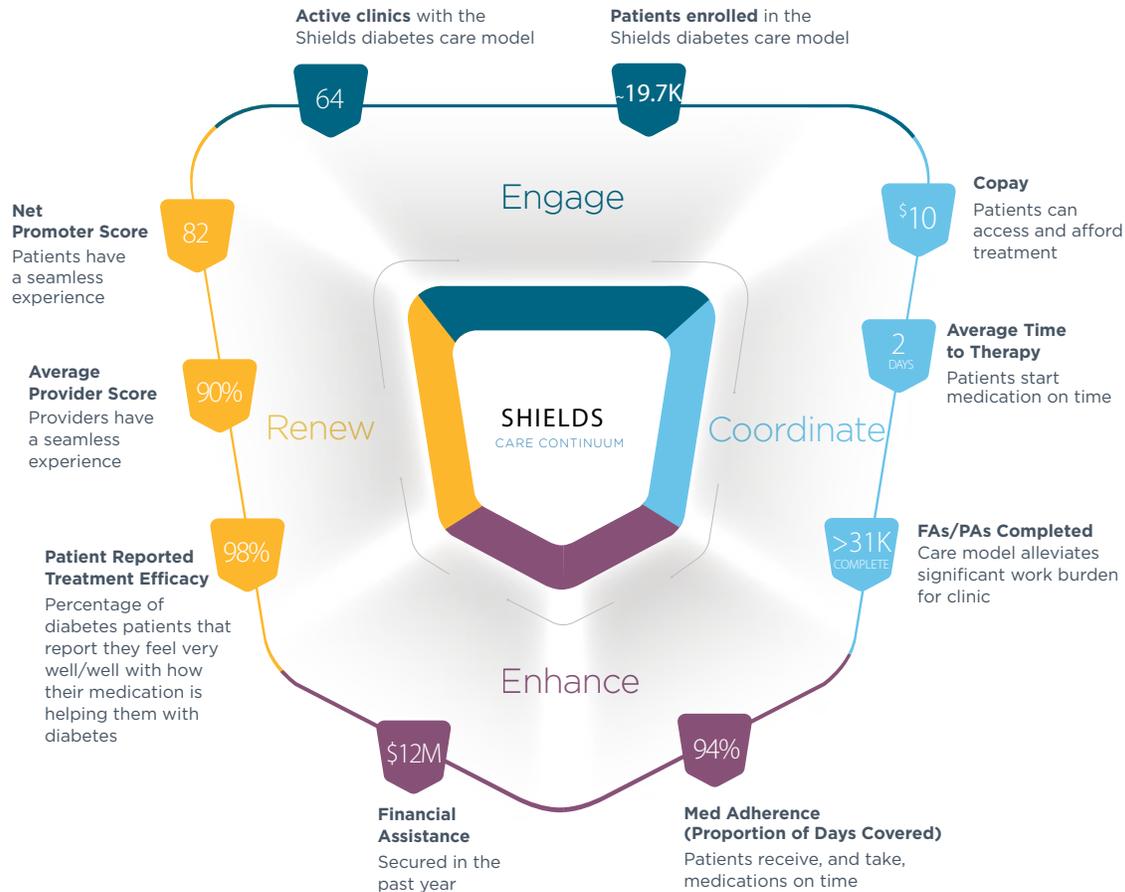
- PDC medication adherence to 94%⁹
- Average per script copay to \$10
- Average time to therapy to two days
- Average HbA1c reduction of 0.7-1.0

Hemoglobin A1C (or HbA1c test) provides a three-month average measure of a person's blood sugar level. A HbA1c level of 5.7% serves as the threshold between a normal measurement and pre-diabetes, and a HbA1c level of 6.5% or above constitutes a clinical diagnosis of diabetes.¹⁰ Given the narrow threshold between pre-diabetes and diabetes, a 0.7% reduction in HbA1c is often viewed as a significant improvement in blood glucose control. The benefits of reducing HbA1c include decreased risk of chronic kidney disease, cardiovascular disease, and nerve damage, and correlates with a reduction in health care costs.¹¹

Moreover, as a result of the financial assistance services our model provides, Shields liaisons have secured more than \$12.4M to help eliminate or reduce copays for patients with diabetes within the past year. This support has been particularly impactful for insulin-dependent patients, where Shields partners have brought average annual out-of-pocket costs to \$225, more than 50% lower than the national average.¹²

\$12.4M

Amount secured to help eliminate or reduce copays for diabetes patients within the past year



THE CARE COACH PROGRAM

In an effort to deepen the clinical impact of its care model, in 2021, Shields launched its Care Coach program, which offers an enhanced set of services to at-risk patients with diabetes. The program targets patients with a sustained A1C score above 9.0 and, in addition to offering specialty pharmacy services, provides a range of additional services such as nutritional and lifestyle counseling, medication management, DME education, and motivational support. The program is designed to re-engage patients in their diabetes self-management by pairing them with a Coach who provides them with continuous support.



Average per script
copay for Care Coach
patients

Research has shown that a 1% decrease in A1C levels is associated with a 37% risk reduction for microvascular complications, a 21% decreased risk for diabetes-related death and a 14% reduction in risk for heart attack.¹³ It has also been shown to reduce diabetes-related medical expenditure by \$736 per patient annually.¹⁴

CARE COACH PROGRAM IMPACT

Patients in the Care Coach program have seen their A1C scores go down by an average of 2.3 points after six months in the program.

The frequent (up to weekly) touchpoints our Coaches offer has resulted in significant clinical impact for patients:¹⁵

- Average three-month A1C reduction of 1.6
- Average six-month A1C reduction of 2.3
- Medication PDC adherence rate of 95%
- Average per script copay of \$5
- Reported increase in patient and provider satisfaction

Thus, in addition to driving additional pharmacy revenue for health systems, the Shields Care Coach program positions our partners to enhance their clinical impact in diabetes while having a meaningful effect on total medical expenditures.

CONCLUSION

Specialty pharmacy can be a powerful tool for health systems looking to better manage their diabetes populations. Shields has encountered considerable demand for better pharmacy care and patient advocacy among diabetes patients, areas where our specialty pharmacy care model excels and has delivered adherence and copay outcomes far above the national average. The results our model has delivered in HbA1C reduction is known to have a direct impact on total medical expense, which has positive implications for health systems with value-based care initiatives.

Moreover, our pharmacy liaison model has demonstrated an ability to markedly simplify and enhance care for patients, while significantly reducing pharmacy-related administrative work for clinics. It has also positioned Shields and its partners to learn more about the day-to-day needs of this population and to continue to innovate to meet a growing number of these needs. While the idea of expanding a specialty pharmacy operation into diabetes may appear challenging at a first glance, Shields has found time and again that partners willing to take this step are opening up enormous areas of growth potential for their health systems.

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- ² American Diabetes Association. Statistics: The Cost of Diabetes. American Diabetes Association. <https://www.diabetes.org/about-us/statistics/cost-diabetes>. Accessed June 15, 2022.
- ³ Centers for Disease Control and Prevention. Diabetes: Only 1 in 4 Adults with Diagnosed Diabetes Achieve Combined Diabetes Care Goals. Center for Disease Control and Prevention. <https://www.cdc.gov/diabetes/research/reports/diabetes-abcs.html>. Accessed June 15, 2022.
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- ⁶ Cramer JA. A systematic review of adherence with medications for diabetes. *Diabetes Care*. 2004;27(5):1218-1224. doi:10.2337/diacare.27.5.1218.
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ABOUT SHIELDS HEALTH SOLUTIONS

Shields Health Solutions (Shields) is the premier specialty pharmacy accelerator in the country. The Shields Performance Platform, an integrated set of solutions, services and technology, is intentionally designed to elevate payer and drug access for specialty pharmacies, elevate health outcomes for complex patients, and elevate growth throughout the entire health system. As the foremost experts in the health system specialty pharmacy industry, Shields has a proven track record of success including access to over 80 percent of all limited distribution drugs (LDDs) and most (health insurance) payers in the nation; and a clinical model proven to lower total cost of care by 13%. In partnership with more than 70 health systems across the country through national-scale collaboration, Shields has a vested interest in delivering measurable clinical and financial results for health systems.



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