



Building patient-provider  
partnerships for better  
diabetes care and management





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Diabetes is one of the fastest growing global health challenges of the 21st century, with the number of adults living with the disease worldwide having more than tripled over the past 20 years.<sup>1</sup>

The coronavirus pandemic further complicates this health challenge, as people with type 2 diabetes are more likely to have serious complications, more intensive care unit (ICU) admissions, longer length of stay, and higher mortality from COVID-19.<sup>2</sup>

Given the depth and complexity of the problem, healthcare organizations intent on making a positive impact on diabetes prevention and management — as well as lowering the associated healthcare costs and drain on clinical resources — should adopt an evidence-based, targeted approach that directly involves patients.

Increasing evidence shows that patient partnership in care can improve health outcomes, practice efficiency, and patient and provider satisfaction.<sup>3</sup> Since patients today are much more informed healthcare consumers, building trusted patient-provider partnerships and empowering patients as active participants in their own care is a natural evolution in their healthcare journey.

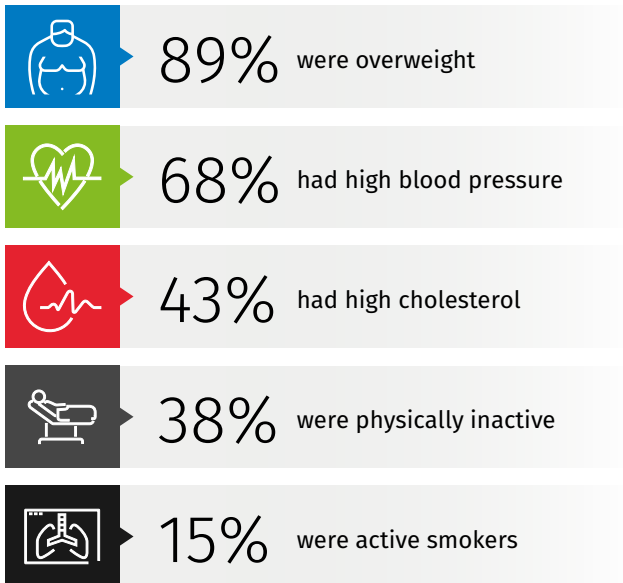
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*According to the International Diabetes Federation (IDF) Diabetes Atlas, **463** million adults are living with diabetes, and **10%** of global health expenditure is spent on diabetes (USD 760 billion).*



## Diabetes Risk Factors

For U.S. adults aged 18 years or older with diagnosed diabetes:



CDC: National Diabetes Statistics Report, 2020 (Risk factor data for 2013-2016)

## Trusted patient partnerships translate to optimized care and outcomes

Since better diabetes management and good glycemic control can also reduce the risk of serious complications — including cardiovascular disease, blindness, kidney failure, lower limb amputation, and stroke — and their associated costs, improving diabetes care has far-reaching benefits for both patients and healthcare organizations.

[The American College of Physicians' Patient Partnership in Healthcare Committee](#) developed principles that position patients at the center of care while acknowledging the importance of partnership between the care team and patient in improving healthcare and reducing harm. "The principles state that patients and families should be treated with dignity and respect, be active partners in all aspects of their care, contribute to the development and improvement of healthcare systems, and be partners in the education of healthcare professionals."<sup>4</sup>

Respectful communication, understanding, and support are essential elements of effective diabetes care. Healthcare organizations that foster partnership, education, and engagement are better able to provide consistent, authentic, and personalized connections that:

- Build trust
- Encourage alignment among patients and care teams
- Empower patients to make shared, evidence-based decisions

When patients feel they are not alone in their care journey, they are more willing to follow treatment plans and make lasting lifestyle changes that result in better outcomes. Improved patient compliance reduces the risk of a patient developing more serious complications and the associated drain on healthcare resources.



[Adults with food insecurity may be at high risk for undiagnosed diabetes.](#) Evidence from the *English Longitudinal Study of Aging* suggests that focusing on people from lower socioeconomic groups may help early diagnosis of diabetes for older adults.

[Within South America, Brazil has:](#)

- ❗ The highest mean annual health expenditure per person with diabetes (USD 3,117)
- ❗ The highest number of adults with diabetes (16.8 million)
- ❗ An estimated 95,800 children and adolescents under the age of 20 with type 1 diabetes

## Identify social determinants and barriers to change

Patients are often aware they must eat healthier and lose weight but changing habits is not easy, particularly habits that require major lifestyle changes. However, since obesity is a major risk factor for diabetes, overcoming barriers and motivating both children and adults to control their weight is crucial. An analysis from the Organization for Economic Cooperation and Development (OECD) shows that [every dollar spent on preventing obesity generates more than a six-fold economic return.](#)<sup>5</sup>

It's important to recognize the unique aspects of a patient's life circumstances that influence these factors and the ability to change. Education levels, finances, cultural background, transportation, access to affordable housing, and healthy foods have a direct impact on patient health and healthcare spending.

According to the [International Diabetes Federation](#), the burden of managing diabetes “increasingly falls on low and middle-income countries and impacts disproportionately on poorer, disadvantaged, and vulnerable groups, including indigenous peoples and minority communities in high-income countries.”<sup>6</sup>

To better support these populations, healthcare systems must become more creative to help patients overcome the obstacles they face. For example, if low income or elderly patients lack transportation, some health systems are working with ridesharing services and public transport systems to ensure patients get to their appointments. If access to healthy food is a problem, a service agency may be able to connect a patient with food assistance programs. Patients who struggle to pay for prescriptions may be eligible for help from prescription assistance programs.



*“UpToDate® [clinical decision support] made a big difference during the COVID-19 pandemic, especially for in-patient management. It helped us provide continuous education to patients who have uncontrolled diabetes and highlight the risks of severe infection, longer hospital stays, and ICU admission. Using UpToDate, we changed our practice in relation to the management of COVID-19 and diabetes. It kept us informed about the treatment changes and helped us to answer patient questions.”*

Dr Fatima Alsayyah,  
Endocrine Specialist, Dubai Hospital (DHA)

## Partnerships go both ways: Clinicians must keep up with new evidence and treatments

Clinicians must also fulfill their part of the equation for successful patient partnerships by keeping abreast of the latest diabetes research and evidence, new treatment options, and recognizing how diabetes therapeutic inertia can adversely impact patient care.



### New evidence

The COVID-19 pandemic stressed the need for clinicians to keep up with the latest diabetes-related evidence in times of crisis and calm. Patients with diabetes are at risk for developing severe illness from COVID-19 and the virus appears to precipitate severe manifestations of diabetes, including diabetic ketoacidosis, hyperosmolar hyperglycemic state, and severe insulin resistance.

In a retrospective study from the U.S., the mortality rate was 14.8 percent among patients with diabetes and 28.8 percent in patients with diabetes or uncontrolled hyperglycemia, compared with 6.2 percent without either.<sup>7</sup>

By consulting evidence-based clinical decision and drug information support, healthcare organizations and clinicians can be confident they're providing diabetes care based on the latest evidence.



### New treatments

Over the past 20 years, drug therapies approved for type 2 diabetes have enhanced ease of use with better outcomes and fewer adverse effects. Newer agents have also proved more effective, actually fixing organ or system dysfunctions.<sup>8</sup>

Biosimilar insulin, which has been available in many countries around the world for several years, has also been approved for use in the U.S. Unlike generic drugs, which share the exact same chemical composition as their brand-name counterparts, biosimilar products are “highly similar” duplicates of the reference brand name product and are expected to produce the same clinical result in any given patient.

In July 2021, the [U.S. Food and Drug Administration](#) (FDA) approved the first interchangeable biosimilar version of insulin — meaning it's fully approved to substitute the biosimilar insulin for the long-acting brand name insulin at the pharmacy without needing permission from the prescriber first.<sup>9</sup>

## Research conducted in many countries has demonstrated the high prevalence of therapeutic inertia.

For example:



A cohort study of patients with type 2 diabetes in the U.K. Clinical Practice Research Datalink database found it took more than 3 years to intensify from one oral antihyperglycemic drug to two oral agents in patients with an A1C higher than 7.0%.



A study in urban African Americans showed that diabetes treatment was only intensified at 50% of clinic visits despite patients not being at goal.



The DAWN Japan Study surveyed Japan Diabetes Society certified and noncertified specialists to assess physician barriers to insulin initiation when warranted. Reasons were deemed clinically insignificant, including concerns about using insulin therapy in the elderly, and difficulty providing guidance and education to patients regarding insulin injections.




Lower cost biosimilar and interchangeable insulin may help low-income and uninsured and underinsured patients — who may have rationed their insulin due to the high cost — gain improved insulin accessibility and affordability, resulting in better compliance with treatment plans.

Carefully maintained and frequently updated, evidence-based clinical drug information can help clinicians stay informed of the latest medications to treat diabetes, explain the concept of biosimilars and interchangeability to their patients, and address any concerns around safety and efficacy.

### **Adjusting care based on glycemic control —**

Therapeutic inertia is the lack of timely adjustment to therapy when a patient's treatment goals are not met. With regard to diabetes care, it means being slow to add or change the care plan if a patient does not have good glycemic control as indicated by their A1C.

Diabetes therapeutic inertia can occur for many reasons,<sup>10</sup> including:

-  **Clinician-related factors** — overestimation of quality of care, belief that intensification of treatment is unwarranted, or lack of materials, time, and training to appropriately escalate care
-  **Patient-related factors** — denial of having diabetes, not taking medications, or limited health literacy
-  **System-related factors** — limited access to resources for follow-up or limited clinic staff

The long-term complications of therapeutic inertia and treatment delays are significant, as poor glycemic control can lead to diabetes-related retinopathy and other microvascular events, cardiovascular disease, kidney failure, lower limb amputation, stroke, and mortality.

Despite the association between good glycemic control and the prevention or delay of diabetes-related complications, clinicians often do not set glycemic, blood pressure, and lipid goals with patients. And even when goals are set, therapy is not always adjusted when treatment goals are not met.

Clinicians who can readily access the latest diabetes evidence may be more inclined to adjust treatments. Therefore, adoption and use of evidence-based clinical decision and drug information support is an effective strategy for healthcare organizations to lower the incidence of clinician-related therapeutic inertia and its associated complications and healthcare costs.

When it comes to patients, medication nonadherence is an important contributor to therapeutic inertia and maintaining target glycemic levels. Partnerships that foster open and honest communication between patient and provider can help improve medication compliance.



## Creating sustainable programs that get patients out of acute care

Blending behavioral science with easy-to-use technologies in engagement programs can make it simple and even pleasant for patients to follow their treatment plans. Effective programs that also provide a judgment-free, empathetic voice are better able to address critical patient needs for successful self-management, such as:

- Taking medications as prescribed
- Eating a healthy diet and losing weight
- Exercising regularly
- Making, keeping, and attending healthcare appointments
- Checking and documenting blood glucose
- Discussing mental health issues with clinicians
- Managing stress

Such programs can produce compelling results. For example, in the U.S., the National Diabetes Prevention Program (2002) found that study participants in a Lifestyle Change Program lowered their chances of developing type 2 diabetes by 58 percent.<sup>11</sup> Program costs were justified by the benefits of diabetes prevention, improved health, and fewer healthcare costs.

A follow-up study demonstrated the need to identify strategies to improve retention, especially among individuals who are younger or are members of racial/ethnic minority populations and among those who report less physical activity or less early weight loss.<sup>12</sup> “Strategies that address retention after the first session and during the transition from weekly to monthly sessions offer the greatest opportunity for impact.”

*Patient engagement is the intersection of information, motivation, and access — communicating relevant information tailored to the patient’s means and values by using proven, personalized methods to motivate action.*



Strategies that take advantage of current technologies can effectively and consistently engage patients, helping them to make lasting changes as well as helping organizations achieve their population health goals. These technologies will also help support patients through the ups and downs of managing a chronic condition.



### Interactive Voice Response (IVR) calls

Thanks to an increasingly sophisticated understanding of voice user interface design and advancements in artificial intelligence (AI), automated calls have become more conversational in tone, highly personalized, and tailored to individual needs and behaviors. Data captured during each conversation is reported to the clinical team, helping them to understand how patients are progressing outside of the clinical setting, and identifying patients who might need more dedicated help.

For example, medication adherence is a significant issue in diabetes care. Among people with diabetes, hypertension, and hyperlipidemia, a [2018 OCED study](#)<sup>13</sup> showed 4 to 31 percent of patients never filled their first prescription. Of those who did, only 50 to 70 percent were taking their medications regularly. Follow-up calls by IVR systems can flag these issues, prompting a call from a clinician to educate a patient about the risks of skipping medications or to determine if medication costs are the root issue.



### Interactive programs

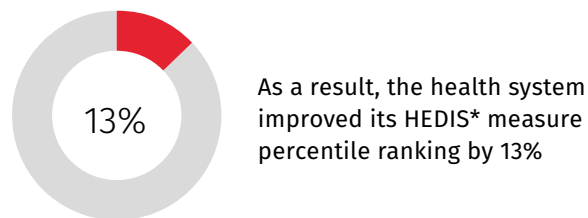
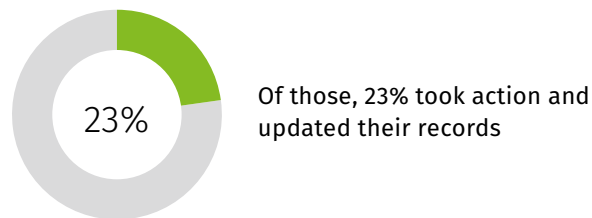
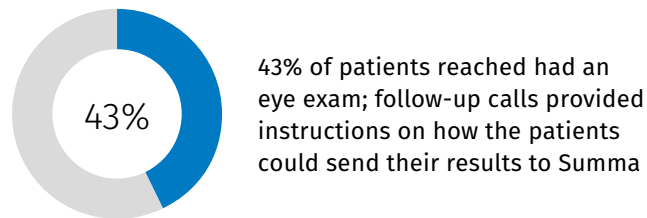
Through cloud-based programs, patients can access information using any internet-connected device at a time and place of their choosing. This enables them to process information at their own pace, take notes, and repeat sections for clarity. These programs can be accessed on a variety of devices to accommodate patient preferences.

Programs that feature engaging spoken narration, animation, and clear medical art simplify complex information and can walk patients through disease management. Research shows this approach works for diverse audiences, regardless of socioeconomic status, education level, or lifestyle<sup>14</sup>. The combination of animation and voiceover - with inclusive and diverse representation - is especially helpful for engaging people with low health literacy.



## Ohio hospital sees results with diabetes engagement program

Summa Health Systems in Akron, Ohio, U.S., implemented an interactive call campaign to determine whether diabetic patients had completed an eye exam for diabetic retinopathy. The organization found that 289 diabetic patients had a “care opportunity.” This meant that either they were due for an exam, or they’d had an eye exam and they simply needed to submit the results. A six-week call campaign yielded the following results:



\* Healthcare Effectiveness Data and Information Set (HEDIS) — a comprehensive set of standardized performance measures used in the U.S.

## Realizing the benefits of patient partnerships: Measurable results

Achieving measurable results for better diabetes prevention, care, and management requires a collaborative approach. This is best accomplished when both patient and provider are active partners in the care journey. Nurturing partnerships that encompass evidence-based clinical decision and drug information support, patient education, and patient engagement provides healthcare organizations with the foundation and framework for improving patient outcomes.

Education and tailored, interactive engagement programs can support patients through the various stages of their diabetes journey, from newly diagnosed, initial management and lifestyle changes to long-term care. Coordinating with their healthcare providers and plans, these programs can engage and motivate patients to take control of their own health and improve outcomes.

### About Wolters Kluwer

Wolters Kluwer provides trusted clinical technology and evidence-based solutions that engage clinicians, patients, researchers, and the next generation of healthcare providers. With a focus on clinical effectiveness, research and learning, clinical surveillance and compliance, as well as data solutions, our proven solutions drive effective decision-making and consistent outcomes across the continuum of care.

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