

# Telehealth programs improve blood sugar for rural Americans with diabetes

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(HealthDay)—If you have diabetes and live in rural America, the closest

specialist may be hours away. But new research shows that effective help may be as close as your phone.

The study found that a six-month telehealth program led to a significant drop in [blood sugar levels](#). Participants had an average A1C level of 9.25% at the study's start and an average of 7.89% at the end. That benefit was maintained a year after the study ended.

A1C tests estimate average blood sugar levels over two to three months. Targets are individualized, but the goal for most adults is under 7%, according to the American Diabetes Association.

"In general, [diabetes](#) is an extremely self-management-intensive disease," said study senior author Dr. Matthew Crowley. He's a staff physician at the Durham VA Health Care System in North Carolina.

For some people, occasional appointments with their primary care doctor may provide enough support. But it's far more difficult for those on more complex insulin regimens to manage on their own.

"You have to inject insulin multiple times a day, and check your blood sugar by pricking your finger for blood multiple times a day. You may need to eat food at a certain time, and you may need to restrict foods too," Crowley said. "When you compare that to people who just need a simple medicine, and then add other conditions like [high blood pressure and abnormal cholesterol], it can really be overwhelming for a lot of folks. For this group, clinic-based care doesn't always cut it."

To help veterans with diabetes living in [rural areas](#) who hadn't yet achieved good blood sugar control, the researchers leveraged existing systems with the VA to develop a telehealth intervention.

The study included 125 people with type 2 diabetes. Most were male and

most were white.

Every two weeks, participants uploaded data from their blood sugar meters or other diabetes' devices. After the information was reviewed, the patients were provided support and education over the phone to help them better manage their diabetes. If needed, medications were adjusted.

"For some people, the medication management piece was critical, but I think the improvements were more than the medication," Crowley said. "A lot of our patients told us that just knowing someone was reviewing the data made them more committed to self-management."

During the maintenance phase, researchers moved to monthly review of blood sugar. Though less frequent, Crowley said, the continued review probably helped patients maintain their improved [blood](#) sugar.

But, he added, they likely gained skills along the way that helped, too.

This study started in 2017, long before the emergence of the novel coronavirus. While health care via phone and internet has flourished since the pandemic began, Crowley said this study shows that "diabetes is well-suited to telehealth management. It allows for more frequent contacts in a way that is more efficient."

Dr. Leslie Eiland, an endocrinologist at the University of Nebraska Medical Center in Omaha, reviewed the findings. She praised the VA as a leader in telehealth interventions.

"The study was really efficient and used existing infrastructure, so they really didn't have to reinvent the wheel," Eiland said. "And, they certainly achieved clinically significant drops in A1C, and those improvements were sustained."

But Eiland said the study had some limitations: The VA population isn't always representative of the country as a whole, so the findings might differ in a more diverse population. Plus, access to telehealth hasn't always been easy for patients with private insurance, she noted.

Eiland has also been involved in a telehealth study for rural residents. Her study focused on people with type 1 diabetes.

In many parts of Nebraska, access to a diabetes specialist is difficult, and Eiland said large areas of the state have only one endocrinologist. The 100-plus people in her study were between 90 minutes and eight hours away from an endocrinologist, she said.

Instead of driving that far, study volunteers went to a local community hospital and met with a registered nurse. During the visit, they were connected by phone to Eiland or another endocrinologist. The study showed a modest decline in their A1C levels over at least three telehealth visits.

Both studies were presented at an online meeting of the American Diabetes Association. Crowley's study was presented on Friday, and Eiland's was presented on Monday.

Findings presented at meetings are typically viewed as preliminary until they've been published in a peer-reviewed journal.

**More information:** To learn more about telehealth diabetes care, visit [Rural Health Info](#).

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