IBM Watson Health and Medtronic team up to make living with diabetes a little easier. Combining the power of cognitive computing, deep knowledge from Medtronic, and a patient-first mindset, a new platform is uncovering new insights like never before.

In 2015, shortly after opening its doors as a healthcare company, IBM Watson Health set its sights on trying to improve the lives of people living with diabetes. Could the team there provide key analytics to help people manage their blood sugar levels? Help predict potentially critical issues? Empower patients to play an active role in their own care, and spend less time in the hospital?

“If we can get someone engaged, help them stay in a healthy blood sugar range, and prevent complications, that would move the needle in terms of the overall cost of treating diabetes,” says Dr. Latts. “And ultimately, it improves the quality of life for the individual.”

**INDUSTRY LEADERS TEAM UP**

Leaders at IBM Watson Health knew it would take more than data scientists. It’s why they teamed up with Medtronic, a leader in diabetes management technology with a keen eye on the patient perspective.

“It was absolutely critical,” said Dr. Latts. “There was no way we could have done it without a strong partner like Medtronic.”

The two companies share a common vision — to improve outcomes and reduce costs in healthcare. And both knew their strengths and where they’d need help.

“Sometimes the challenges in healthcare are too urgent and too important for any one organization to tackle alone,” says Paul Acito, Vice President of Customer Solutions at Medtronic Diabetes. “We can collaborate to solve big problems by recognizing the value of additional industry and technical knowledge that’s available.”

---

Dr. Lisa Latts doesn’t mince words.

“In healthcare, we have a data problem,” she says. “There’s too much of it for humans to handle.”

Dr. Latts is Chief Deputy Health Officer at IBM Watson Health, a company leveraging the power of artificial intelligence, natural language processing, deep learning, analytics, and other tools to make sense of complex data. All this with the hope it will make a difference for patients.

---

“If we can get someone engaged, help them stay in a healthy blood sugar range, and prevent complications, that would move the needle in terms of the overall cost of treating diabetes.”

Dr. Lisa Latts
Chief Deputy Health Officer, IBM Watson Health
CREATING A “DIABETES ASSISTANT”

Outside of a few doctor visits each year, people living with diabetes are tasked with managing more than 95 percent of their care. This includes healthy eating, exercising, monitoring blood sugar, taking medication, reducing risk, and taking care of unexpected issues that arise. It is estimated patients are making hundreds of decisions each day related to their diabetes.

“Diabetes is a big data disease,” says Acito. “We want to provide some relief with those daily decisions.”

What resulted was the 2018 release of a first-of-its-kind mobile app for those living with diabetes. It leverages the power of Watson’s artificial intelligence along with the Medtronic team’s deep diabetes knowledge and management devices. Called Sugar.IQ™, the “personal diabetes assistant” continually analyzes how an individual’s glucose level responds to food intake, insulin dosages, daily routines, and other information provided by the app user.

With the Sugar.IQ™ app, people with diabetes can uncover patterns and insights that affect their glucose levels, which can give them information throughout the day to help stay on track. The digital platform syncs with the Guardian Connect™ system from Medtronic—a smart continuous glucose monitoring system that provides advanced warning of sugar highs and lows.

The Sugar.IQ™ mobile app acts as a “personal diabetes assistant”

IN RANGE — LONGER

Early results show that the Sugar.IQ™ app is doing what it’s meant to do. Research presented at the American Diabetes Association 2018 conference, found that people who used the Sugar.IQ™ app spent an average of 36 minutes more per day in healthy glucose range [70-180 mg/dL] than they did before using the app.¹ The time equates to an additional nine days a year in healthy glucose range, which can provide a host of benefits.

“If we can help someone stay in range longer, that can help prevent some of the complications associated with diabetes,” says Dr. Latts.

Complications often mean additional trips to the hospital or treating even more serious conditions like heart or kidney disease.

And treating these conditions are costly.

“We know that one in four dollars in the healthcare system is spent on individuals with diabetes,”² says Latts. “If we can get people engaged, it could really move the needle in terms of the cost of diabetes within the healthcare system.”

“Any big problem in healthcare is an amalgam of smaller, addressable problems. By solving the day-to-day problems, we can make positive improvements in patient outcomes while advancing toward our ultimate goals,” says Acito. “Our partnership with IBM Watson will take healthcare to the next level.”

“By solving the day-to-day problems, we can make positive improvements in patient outcomes while advancing toward our ultimate goals.”

Paul Acito
Vice President of Customer Solutions
Medtronic Diabetes

¹ Research presented at the American Diabetes Association 2018 conference, found that people who used the Sugar.IQ™ app spent an average of 36 minutes more per day in healthy glucose range (70-180 mg/dL) than they did before using the app. The time equates to an additional nine days a year in healthy glucose range, which can provide a host of benefits.

² “We know that one in four dollars in the healthcare system is spent on individuals with diabetes,” says Latts. “If we can get people engaged, it could really move the needle in terms of the cost of diabetes within the healthcare system.”

“Any big problem in healthcare is an amalgam of smaller, addressable problems. By solving the day-to-day problems, we can make positive improvements in patient outcomes while advancing toward our ultimate goals,” says Acito. “Our partnership with IBM Watson will take healthcare to the next level.”
AN EYE ON THE GOAL

Providing these meaningful solutions required two companies willing to work together.

The Sugar.IQ™ Team

"IBM brings deep understanding and world-class skills to our partnership," says Acito. "But what makes this relationship work well is that they share our mission and vision to transform patient outcomes and reduce costs in the healthcare system."

But it’s not always an easy journey.

“There were stops and starts,” said Dr. Latts. “But you need open communication and a willingness to try, and fail.”

While in the development phase, for example, an early version of the Sugar.IQ™ app was serving up critical insights, but the language used was too clinical. Medtronic took the time to re-write the language into easier to understand, patient-friendly wording.

"Anytime you can keep patients engaged in their own care, that’s when you start seeing better outcomes."

Dr. Lisa Latts
Chief Deputy Health Officer
IBM Watson Health

“We spend an enormous amount of time understanding patients’ needs, unique problems, wishes and aspirations so we can incorporate them into our technologies,” says Acito.

Ultimately, creating the Sugar.IQ™ app required keeping their focus on one thing: the patient.

“Anytime you can keep patients engaged in their own care, that’s when you start seeing better outcomes,” says Dr. Latts. “There are millions of people living with this disease and we’re committed to working on their behalf.”

And working for patients today — and in the future — is ultimately what brought these two companies together.

“We’re going to see incredible things in the months and years to come,” says Dr. Latts. “We haven’t even scratched the surface of what’s possible.”

Important Safety Information:
Guardian™ Connect CGM System

The Guardian Connect system requires a prescription and is indicated for continuous or periodic monitoring of glucose levels in the interstitial fluid under the skin, in patients (14 to 75 years of age) with diabetes mellitus. The system is intended to complement, not replace, information obtained from standard blood glucose monitoring devices, and is not recommended for people who are unwilling or unable to perform a minimum of two meter blood glucose tests per day, or for people who are unable or unwilling to maintain contact with their healthcare professional. The system requires a functioning mobile electronic device with correct settings. If the mobile device is not set up or used correctly, you may not receive sensor glucose information or alerts. For complete details of the system and its components, including warnings, contraindications, and precautions, please consult the user guide at http://www.medtronicdiabetes.com/support/download-library/user-guides and http://www.medtronicdiabetes.com/importantssafetyinformation.

REFERENCES