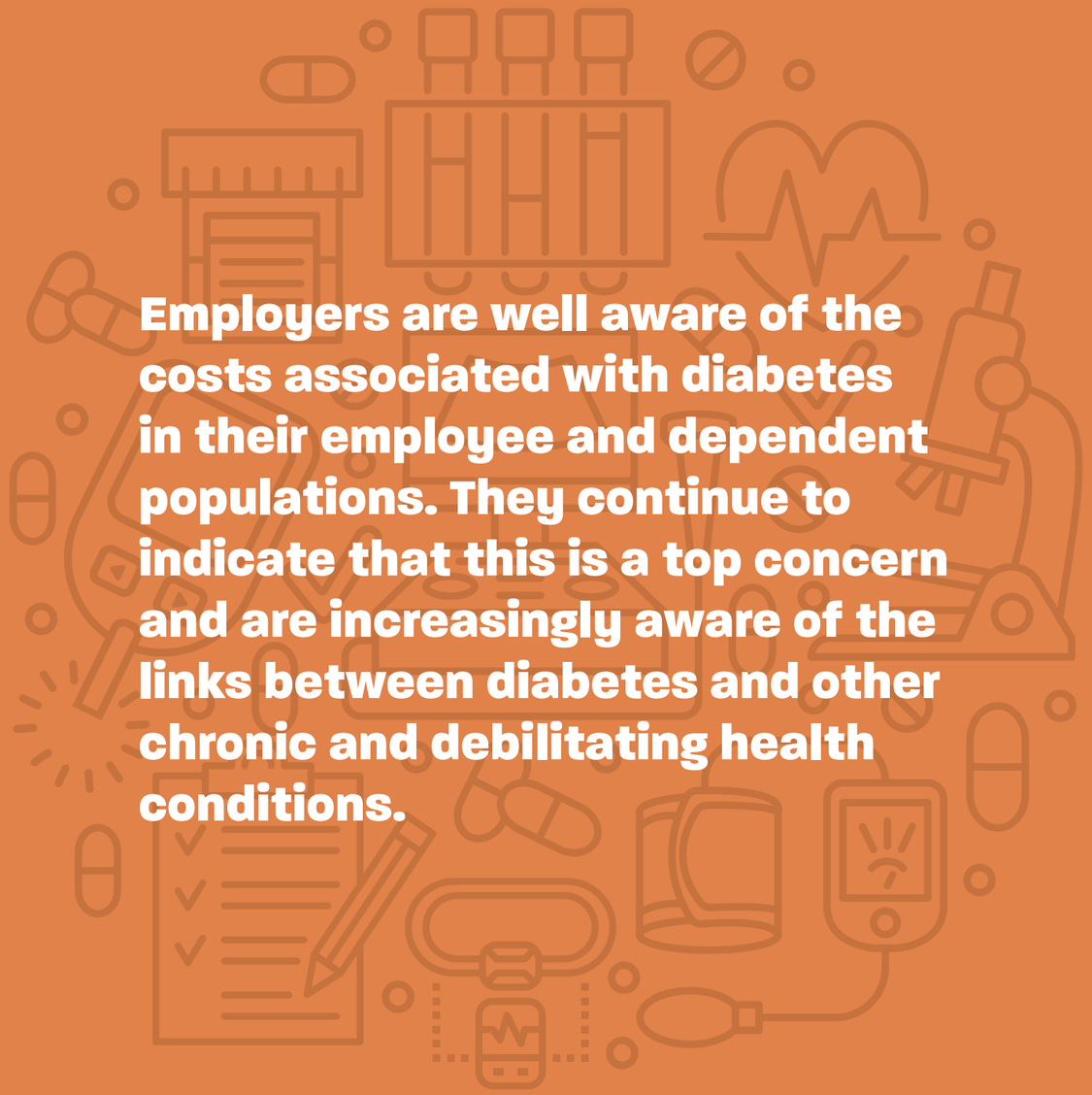
Digital Tools and Solutions for Diabetes

An Employer's Guide

November 2018

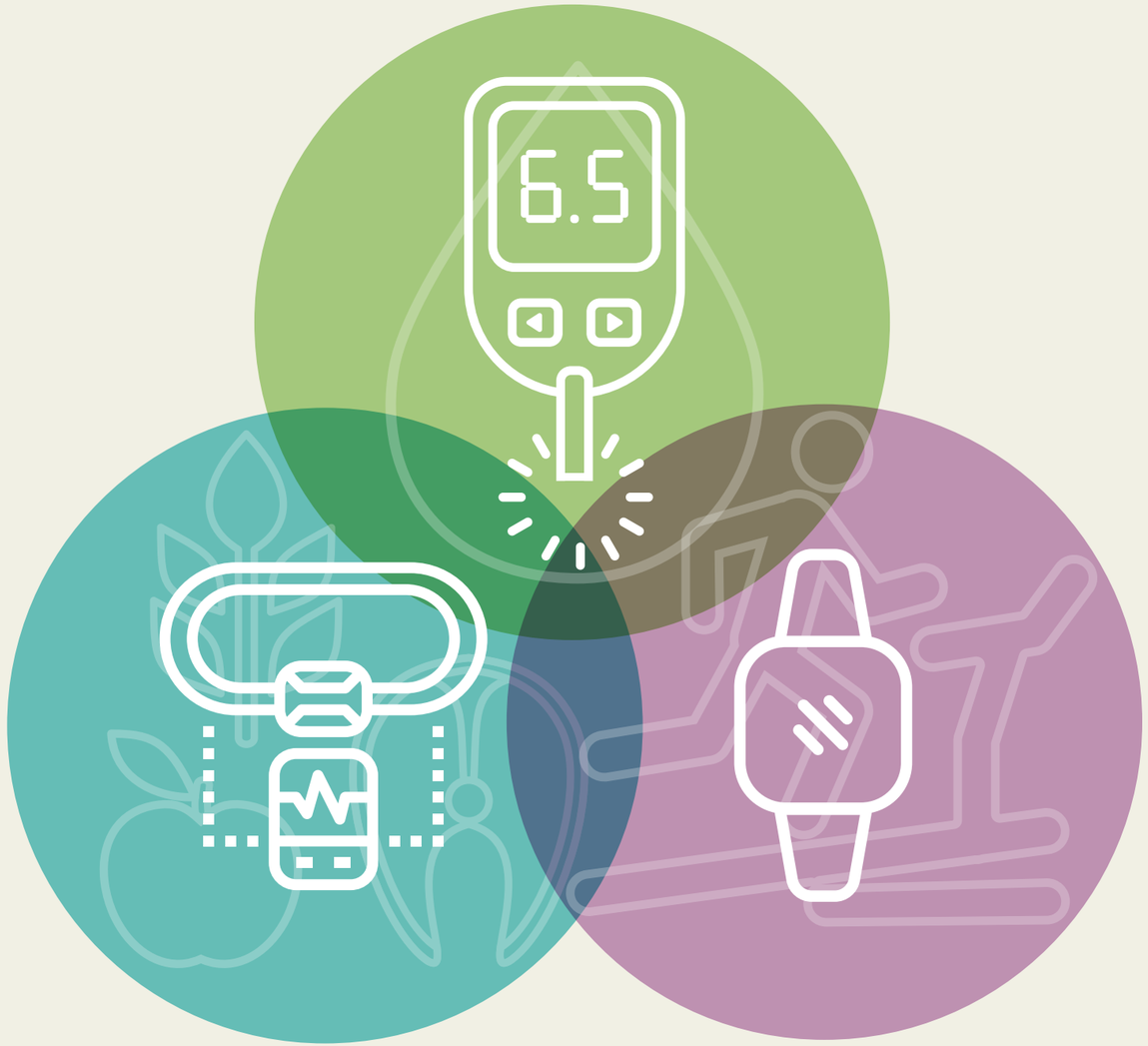
solutionscenter

NORTHEAST BUSINESS GROUP ON HEALTH



Employers are well aware of the costs associated with diabetes in their employee and dependent populations. They continue to indicate that this is a top concern and are increasingly aware of the links between diabetes and other chronic and debilitating health conditions.

Contents



The market for digital diabetes prevention and management solutions has continued to mature since the publication of the Northeast Business Group on Health's 2016 guide. Since then, some tools have been enhanced with additional features, new solutions have entered the market and others have been acquired or left the market.

As employers refine the mix of programs and benefit strategies they offer their employees, NEBGH has developed this updated guide to reflect changes in the market and profile a current set of digital solutions available to employers in their efforts to help employees prevent and manage diabetes.

Introduction

Northeast Business Group on Health has tracked the rapid evolution in digital diabetes prevention and management solutions through two recent reports:

Our May 2015 Solutions Center report, “Transforming Diabetes Management: New Directions for Employers” pointed to a number of new innovative approaches to workplace diabetes interventions that included digital solutions.

Our March 2016 follow-up, “‘Digital Diabetes Prevention and Management Solutions,” was the result of a detailed market scan, and offered a guide to digital diabetes solutions then on the market along with their specific capabilities, distribution channels, and pricing.

Based on member interest, NEBGH has now completed a second market scan and offers here our updated enumeration of digital diabetes solutions currently on the market. This guide is intended to serve as a useful entry point into this arena for employers and the solutions detailed here are intended to complement existing diabetes healthcare benefits and programs.

The solutions highlighted here are intended to assist people with both Type 1 and Type 2 diabetes. While 95% of diabetes cases in the United States are Type 2, and only 5% are diagnosed as Type 1[1], this smaller subset should not be overlooked as 75-80% of those diagnosed with Type 1 diabetes are adults and therefore likely to be in the workforce.[2]

1 *Statistics about Diabetes* — American Diabetes Association: http://www.diabetes.org/diabetes-basics/statistics/

2 *The Prevalence of Type 1 Diabetes in the United States* — U.S. National Library of Medicine, National Institutes of Health: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4562437/

Diabetes is increasingly common

According to the Centers for Disease Control and Prevention, over 30 million people in the U.S., or roughly one in 10, have diabetes. Of those, 25% do not know they have diabetes. An additional 80 million people have prediabetes, in which blood sugar levels are higher than normal but not high enough to be diagnosed as diabetes. Prediabetes puts a person at increased risk of developing Type 2 diabetes[1], heart disease and stroke.[2] Every year, roughly 5–10% of people with prediabetes go on to develop diabetes.[3] A person with prediabetes can cut his or her diabetes risk in half by losing weight and increasing physical activity;[4] sadly nine out of 10 people don’t know they have prediabetes and therefore may not make the lifestyle changes they need.[5]

1 *More than 100 million Americans have diabetes or prediabetes* — Centers for Disease Control and Prevention: https://www.cdc.gov/media/releases/2017/p0718-diabetes-report.html

2 *The Surprising Truth About Prediabetes* — CDC: https://www.cdc.gov/features/diabetesprevention/index.html

3 *Prediabetes: A high-risk state for developing diabetes* — U.S. National Library of Medicine, NIH: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3891203/

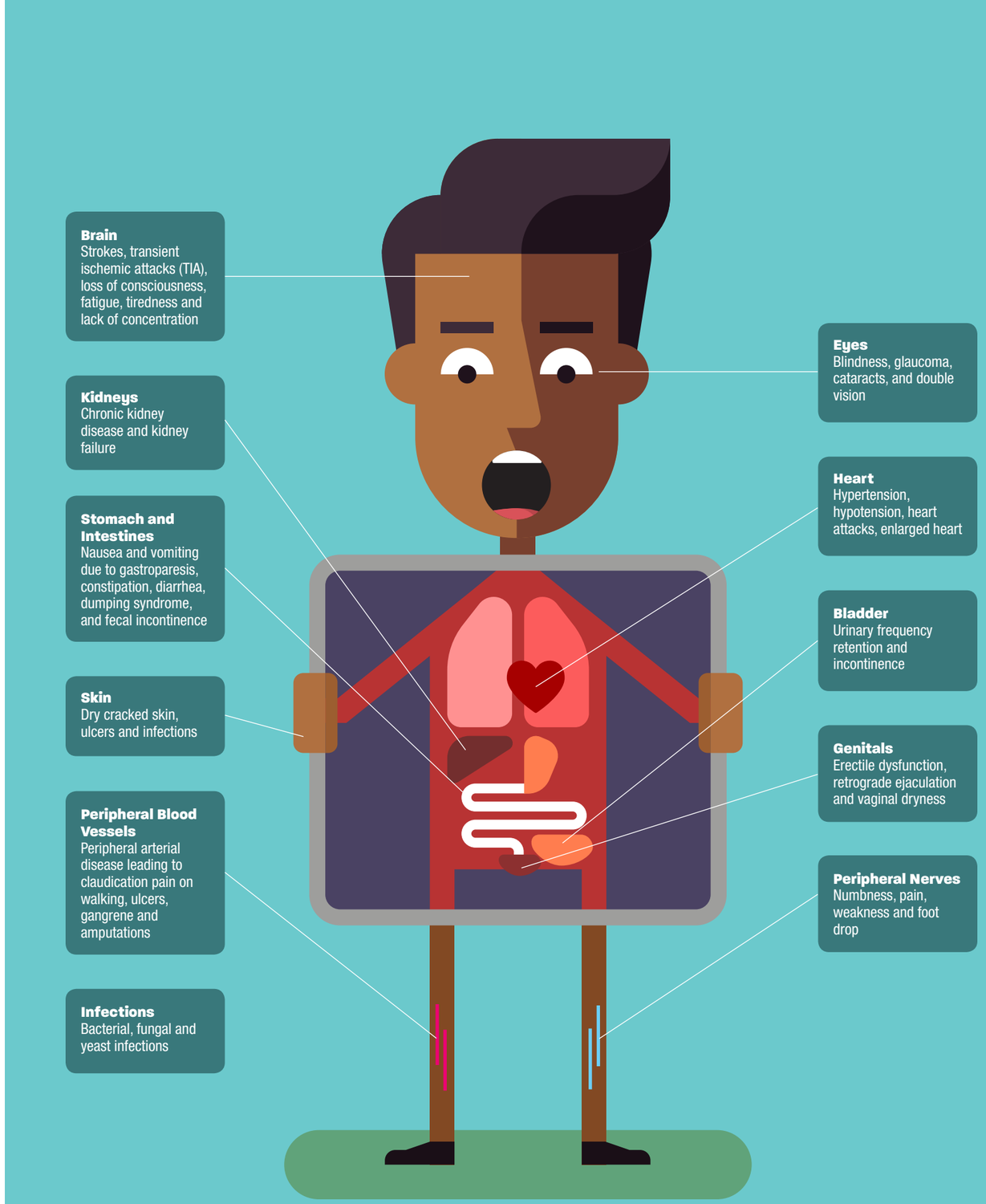
4 *Diabetes Prevention Program Outcomes Study* — The Lancet: https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(12)60525-X/fulltext

5 *National Diabetes Statistics Report, 2017, page 7* — CDC: https://www.cdc.gov/diabetes/pdfs/data/statistics/national-diabetes-statistics-report.pdf

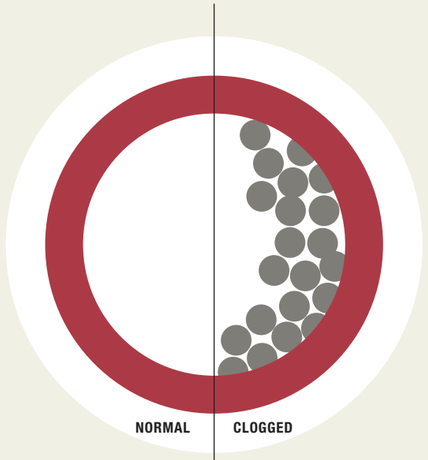
Diabetes Affects Multiple Systems in the Body

In Type 2 diabetes, insulin resistance occurs when the muscles and liver that normally take up blood sugar and use it for energy begin to lose their sensitivity to the hormone insulin. The pancreas' insulin-making beta cells then respond by producing more and more insulin. Even though insulin levels may increase, the amount is not sufficient to prevent blood sugar levels from rising. This high blood sugar level adversely affects blood vessels all over the body, causing complications.

As the diagram on the next page shows, elevated blood sugar levels for prolonged periods can severely damage the eyes, kidneys, nerves, and other body parts, cause sexual problems and increases the risk of heart attack and stroke.



Diabetes causes plaque buildup that can clog arteries, **leading to a heart attack or stroke**.



If you have diabetes, you are up to **four times more likely to develop heart disease**.

Heart disease is the **No. 1 cause of death** in adults with type 2 diabetes.

In adults with type 2 diabetes, **2 out of 3 deaths are caused by heart disease**.

Source: *Diabetes & your heart: What's the connection?* — Boehringer-Ingelheim: https://www.foryoursweetheart.com/

Diabetes and Cardiovascular Disease

Over time, high blood sugar leads to a buildup of plaque in the arteries. This buildup can harden and narrow blood vessels, reducing the flow of oxygenated blood to the heart. As a result, people with diabetes are more likely to develop heart problems than those who do not have diabetes. In fact, cardiovascular disease is the leading cause of morbidity and mortality in people with Type 2 diabetes globally.[1, 2]

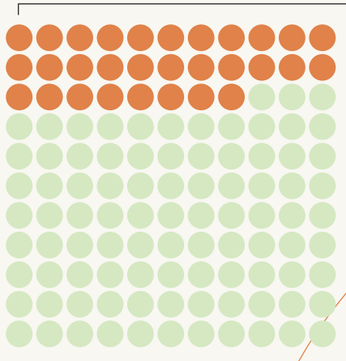
Keeping the Complications of Diabetes at Bay

The complications associated with diabetes are not inevitable and can be kept at bay and even prevented by maintaining strong control of blood sugar, blood pressure and cholesterol. Eating healthy foods, not smoking, significantly limiting alcohol consumption and incorporating regular activity into a daily routine can help keep blood sugar levels within recommended limits. Technology that supports tracking blood glucose levels, weight, diet and activity, while also prompting medication adherence and developing supportive social networks, can be invaluable.

“Technology that supports tracking blood glucose levels, weight, diet and activity, while also prompting medication adherence and developing supportive social networks, can be invaluable.”

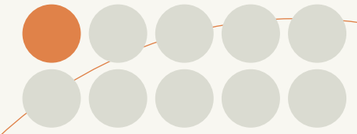
1 *Cardiovascular Disease and Diabetes* — American Heart Association: http://www.heart.org/en/health-topics/diabetes/why-diabetes-matters/cardiovascular-disease--diabetes

2 *Peripheral Artery Disease and Diabetes* — AHA: http://www.heart.org/en/health-topics/diabetes/why-diabetes-matters/peripheral-artery-disease--diabetes

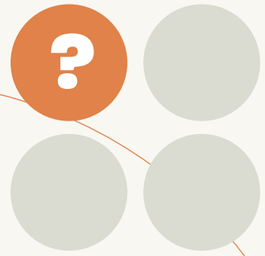


30.3 million people have diabetes. [1]

84 million people have prediabetes.



About 1 out of every 10 people have diabetes.



1 out of 4 people don't know they have diabetes.

Health care costs for Americans with diabetes are 2.3 times greater[2] than those without diabetes.

$327 BILLION

Diagnosed diabetes costs in America per year.

$1 in $7 health care dollars is spent treating diabetes and its complications.

Every day, **4,110** Americans will be diagnosed with diabetes. Additionally, diabetes will cause **295** Americans to undergo an amputation and **137** will enter end-stage kidney disease treatment.

The CDC has a developed a tool to help calculate the total cost of diabetes to your business

https://www.cdc.gov/diabetes/diabetesatwork/plan/costs.html

Risk of death for adults with diabetes is **50% greater** than for adults without diabetes.

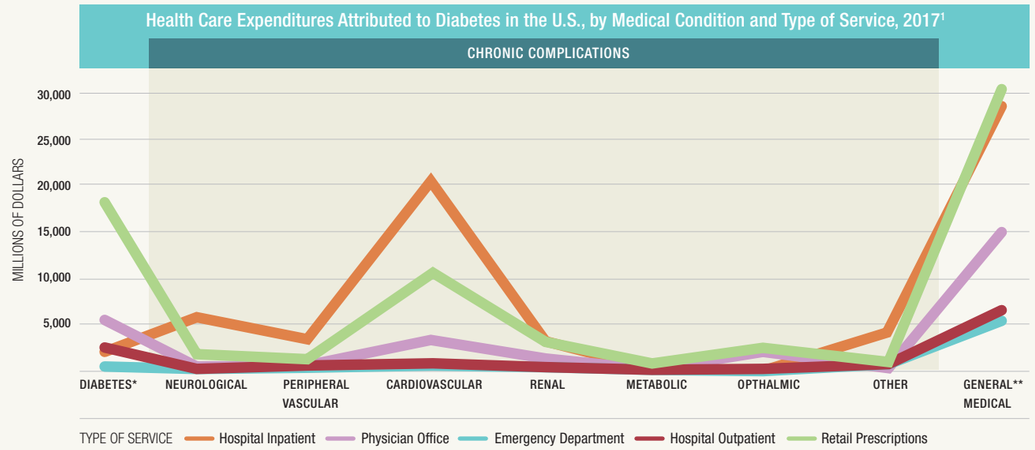
1 *A Snapshot: Diabetes in the United States* — CDC: https://www.cdc.gov/diabetes/pdfs/library/socialmedia/diabetes-infographic.pdf

2 *The Cost of Diabetes* — ADA: http://www.diabetes.org/advocacy/news-events/cost-of-diabetes.html

The Cost of Diabetes

The CDC estimates that the medical expenditures of a person with diabetes are approximately 2.3 times the expected medical expenditures of a person without diabetes.[1]

The American Diabetes Association provides the following breakdown of the costs of diabetes and associated chronic conditions:[1]



*Cost of directly treating diabetes ** Includes all other health care use that is not a known comorbidity of diabetes.

In addition to increased medical costs, diabetes also costs employers indirectly through absenteeism, lost productivity and disability. According to the CDC, the productivity and absenteeism-related costs of diabetes is as follows:[1]

Of the $327 billion determined to be the economic cost of diagnosed diabetes in 2017, $90 billion is allocated to indirect costs, including:

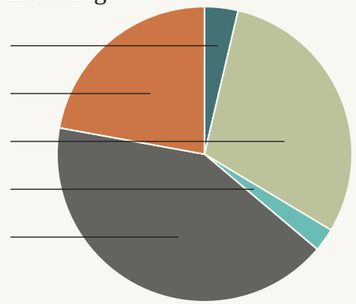
Increased absenteeism ($3.3 billion)

Lost productive capacity due to early mortality ($19.9 billion)

Reduced productivity for the employed population ($26.9 billion)

Reduced productivity for those not employed ($2.3 billion)

Inability to work as a result of disease-related disability ($37.5 billion)



1 *Economic Costs of Diabetes in the U.S. in 2017* — https://www.cdc.gov/diabetes/diabetesatwork/plan/costs.html

Challenges Addressed by Digital Health Solutions

Digital health tools in general seek to address challenges common to a range of chronic illnesses such as diabetes. They include:

Employee/Patient Engagement
Features such as personalization, tracking, habit creation, socialization and gamification appeal to specific patient characteristics and can increase engagement.

Collaboration
Person-centered, team-based collaboration is more easily facilitated in a digital setting among users, clinicians, peers, coaches and other caregivers.

Behavior Change
Information, guidance and support delivered conveniently and consistently can help users sustain behavior changes.

Overcoming these challenges can lead to:

Better Outcomes

Digital health tools hold the promise of improved health outcomes and reduced healthcare expenses through improved engagement, better collaboration and sustained behavior change. Several studies have been published showing the benefit of digital health platforms.[1]

1 *Using Digital Health Technology to Prevent and Treat Diabetes* — U.S. National Library of Medicine, NIH: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4761854/

Employers have seen this promise borne out through implementation of digital solutions.

But digital diabetes solutions are not a panacea. Obstacles that employers need to address through planning and learning from other employers that have successfully implemented these tools include:

- Difficulty of recruitment and enrollment
- Lack of sustained employee engagement
- Lack of integration with other health initiatives
- Cost of deployment of digital solutions
- Burden of organizational approval process for adding or integrating new IT services

Suggested solutions to implementation challenges:

- Employers can make use of relevant workplace opportunities such as wellness events or annual health risk assessments to educate employees about digital diabetes prevention and management tools and encourage enrollment.
- Employers can appoint employee ambassadors who can speak to the value of a digital diabetes solution; these ambassadors can be an invaluable resource.
- Employers can encourage engagement by incentivizing regular and sustained use of a digital diabetes tool.
- Many of the tools listed in this report offer a variety of integrations with other health initiatives, leverage these.
- Many of the tools listed in this report offer branded marketing campaigns, various employee on-boarding strategies, and are willing to put a portion of their fees at risk, dependent on meeting certain health outcomes or engagement goals.

How Digital Health Solutions Can Make a Difference

Convenience
Digital tools and solutions can meet people where they are, untethering them from a doctor's office, weigh-in session, or desk, to communicate and/or log and track information. Data and reminders can be provided just in time to deliver actionable support to users precisely when they need it. Peers, coaches and care providers can collaborate conveniently through messaging, social networks and video conferencing. In 2016, more people accessed the web from mobile devices than they did from desktops or notebooks,[1] so it makes sense to provide solutions via mobile devices.

Personalization
Artificial intelligence and supporting algorithms enable information, guidance and support to be tailored specifically to a user's biometrics, psychographics, relationships and behaviors to create a unique experience.

Data Collection & Management
Capturing clinical and psychosocial data continuously can allow for seamless tracking and analysis by connected users, peers, coaches and care teams. Data can be collected in multiple ways based on the capabilities of tools, solutions and user preferences. Wearables such as activity trackers, blood pressure cuffs or continuous glucose monitoring pumps can seamlessly capture and upload data into the cloud. Other information such as diet and mood can be entered manually by the user.

Automatic displays of customized information can allow users to better understand trends and analyze the effects of behavior change on their health. For people who require insulin for their disease — those with Type 1 diabetes and up to 30% of those with Type 2 diabetes[2] — the use of continuous glucose monitoring (CGM) has become increasingly common, and has led to better glucose control and reduced risks of hypoglycemia. Some digital tools now include CGM to assist with disease management and tracking. However, a recent Patient-Centered Outcomes Research Institute study[3] indicates that for the 75% of patients living with type 2 diabetes who do not use insulin, self-monitoring of blood glucose (SMBG) increases costs and may not lead to improved health outcomes. There is also an increased cost associated with SMBG.

1 Mobile and tablet internet usage exceeds desktop for first time worldwide: http://gs.statcounter.com/press/mobile-and-tablet-internet-usage-exceeds-desktop-for-first-time-worldwide

2 Age-Adjusted Percentage of Adults with Diabetes Using Diabetes Medication — CDC: https://www.cdc.gov/diabetes/statistics/meduse/fig2.htm

3 https://www.pcori.org/sites/default/files/Donahue018-Final-Research-Report.pdf

Behavioral Economics
With the increasing amount of real-time data available from connected devices and continuous data entry, digital tools and solutions can serve as a vehicle to deliver more customized rewards and incentives to drive engagement. These economic incentives can be linked to healthcare premium discounts, for example, and can act as a catalyst for improved overall diabetes and health management.

Coaching
Digital tools and solutions can provide more opportunities for two-way communication than ever before. Programs may provide feedback and support through automated coaching and artificial intelligence or provide access to registered dieticians, certified diabetes educators, nurses or other qualified health professionals on an individual or group basis. Users have the opportunity to conveniently develop a trusted relationship with a coach and be more successful in their own self-management.

Socialization
Many digital tools and solutions engage people beyond an individual user and his or her coach by connecting them to a social network of people with similar health goals. Tools and solutions can provide social communities through private networks that allow them to share activities, goals and progress. Within some tools and solutions, users can permit friends and family to view and respond to their progress. Peer support, empathy and encouragement can increase self-efficacy and likelihood of sustained behavior change.

Supporting Advanced Primary Care
Within a rapidly transforming delivery system, many patients can begin to receive care from primary care providers incentivized on the value of delivery rather than the volume of services delivered. Digital tools and solutions can support both patients and doctors through this change via real-time monitoring of conditions, communications and support. Poor health indicators can be caught and addressed before an adverse event occurs, serving as an opportunity for early intervention to prevent behavioral and physical health relapses.

Integration with Employers' Technology
Many employers have a company-wide intranet and may have implemented other digital solutions that support benefits programs, wellbeing programs, financial health and social networks. Digital tools are increasingly able to integrate and share data with these existing systems, allowing a seamless experience for employees and maximized engagement with benefits and health intervention opportunities. This leads to healthier employees who appreciate what their employer is providing for them.

What Do We Want from a Digital Diabetes Solution?

Diabetes solutions need to provide a simple interface that seamlessly helps users prevent or optimally manage their diabetes.

Improved user experience over time: The perfect tool learns from experience, adjusts for the one-off situations that are so common to everyday life, and alerts the user so action can be taken before something goes wrong.

Education: It is a tool that provides personalized guidance and access to the most up-to-date and scientifically vetted information on diabetes prevention and management.

Improved Health: By connecting directly to blood glucose meters and other health tracking devices, the tool can build healthy habits and treatment compliance.

Real-Time Connection to User's Care Team: The most effective tool can also provide the ability to keep a user's healthcare providers informed and offer connection to coaches, support groups, friends and family.

Interoperability with Other Digital Systems: In a perfect world, all solutions offered by an employer would be fully integrated with each other for maximum efficiency and ease of use.

Cost Savings: The perfect tool would also save time and money.

The Future is Almost Here

While the perfect tool isn't available today, several that are available can perform many of the functions described above.

Technology is constantly evolving: by connecting sensors, wearables and apps, it is increasingly possible to pool and leverage data in innovative ways to provide timely interventions so that people with diabetes can be truly independent and effectively self-manage their care.

Consider the following hypothetical scenario: A person with diabetes enters a restaurant where a GPS sensor identifies the location, reviews the menu and proposes the best choices based on caloric and carbohydrate content. The technology also proposes and delivers a rapidly acting insulin bolus dose based on the person's exercise level that day and prior experiences when eating similar meals.

Digital Tools

HOW TO USE THE TABLE

Employers can use the enclosed table as a sample of notable digital diabetes tools and solutions and the features they offer. It is not intended to be an exhaustive list of every diabetes or prediabetes management solution on the market. NEBGH has tried to capture those tools frequently mentioned by employers as being of interest, and those with employers as a primary target audience. Information in the table was collected through online marketing materials, a survey completed by a number of vendors, and follow up calls or emails to some vendors by NEBGH staff. If we didn't hear from vendors or information supplied was insufficient, unfortunately, we were unable to include them in this guide.

Note that some programs may have more capabilities than those indicated in the table.

The table is designed to help guide employers as they determine what digital features are most important in addressing the challenges they face with workplace diabetes programs, and to provide a starting point as they seek to identify solutions that match up accordingly. The following six pages include descriptions of the tools listed on the enclosed chart.

Diabetes Tool Chart

More tools on other side. →

See page 20 of the accompanying brochure for a full description of all tools listed in this chart. Company URLs are listed at the bottom of the chart.

Tool Name Company	Number of years the tool has been available	Number of people who currently use the product on a daily basis	Languages Supported	**Educational Content**			**What Data is Tracked?**							**How is Data Captured?**			**Integration with other digital devices?**	**Support Groups/Social Connection?**				**Pricing**	**Can Healthcare Provider Access User Data?**				**Coaching**						**Privacy**			**Outcome Studies** (See footnotes at the bottom of the page for complete URLs.)
				Generic interactive learning modules	Personalized interactive learning modules	General information	Diet	Weight	Activity	Blood Pressure	Wellbeing *	Blood Sugar	Medication	Data entered by user manually	Data automatically collected via wearable device	User responds to digital prompts	**If yes, please explain.** wearables, & apps (e.g. movement trackers, glucose monitors, other related apps etc.)	Ability to invite friends and family	Connection to support groups or online chat	Connection to social network of people with similar diagnoses	Ability to compete with others with similar diagnoses	**Pricing model and typical cost per user per month, if applicable.**	Via an online portal	Patient data can be downloaded to provider's electronic health record (EHR)?	Secure e-mail with questions & sent to provider	Other	Self coaching through educational guides	Automated context-specific coaching	Unlicensed Coaches	Licensed Clinicians	Artificial Intelligence	Existing Provider used for Coaching	Data supplied to third parties	Tool is HIPAA compliant	Privacy statement that users have to agree to	
Abacus Diabetes Care Rewards Program **Ideal User** Individual managing weight, prediabetes, Type 1 or Type 2 Diabetes; Providers/Care Managers; Friends & Family. Abacus Health Solutions	11–15 YRS	10K–50K	English, Spanish			●	●	●	●	●	●	●		●			• Multiple blood glucose monitor integrations • Blood Pressure cuff integration			●		Pay for performance. PMPM cost depends on program design and population size.		●	●	●				●		●		●	●	Peer Review: 1 Internal Reports: 2
Betr Health **Ideal User** Individual managing weight, prediabetes, Type 1 or Type 2 Diabetes. Betr Health	7–10 YRS	0–1K	English, Spanish		●		●	●	●	●	●	●	●	●	●		• Blood Glucose Meter • Interacts with multiple devices • Smartphone Camera (Food Photos)	●	●	●	●	Pay for performance. **Typical cost per user per month: $99**					●	●		●			●	●	Not supplied
Better Choices, Better Health **Ideal User** Individual managing weight, prediabetes, Type 1 or Type 2 Diabetes. Canary Health	11–15 YRS	0–1K	English		●	●	●		●					●						●		**$300 total per person for 6 week program** (NOT PER MONTH)				customized per provider needs				●				●	●	Peer Review: 3, 4, 5
BlueStar **Ideal User** Individual managing Type 1 or Type 2 Diabetes; Providers/Care Managers; Friends & Family. WellDoc, Inc	0–3 YRS	1K–5K	English, Spanish	●	●	●	●	●	●	●	●	●	●	●	●	●	• One Touch Verio Flex blood glucose meter • Jawbone • MyFitnessPal • Samsung Health • FitBit • MisFit • Omron blood pressure cuff • User accounts with labs, pharmacies and health care providers	●				PPPM or Pay for performance. **Typical cost per user per month:** Dependent on population size.	●	●	●	●	●	●		●				●	●	Peer Review: 6, 7, 8, 9, 10, 11, 12, 13 External Report: 14
Cappa DPP **Ideal User** Individual managing weight, prediabetes, Type 1 or Type 2 Diabetes; Providers/Care Managers; Friends & Family. Cappa Health	4–6 YRS	1K–5K	English, Spanish-speaking Coaches		●		●	●	●	●	●	●		●	●	●	• Cappa can track all bio-metrics • Digital scales (Fitbit, Nokia) • Pedometers (fitbit, nokia) • Platforms and portals		●	●	●	Pay for performance & Pay for engagement models. **Typical cost per user per month: $21–$45 per active user**	●							●				●	●	Internal Reports: 15
Cornerstones4Care **Ideal User** Individual managing Type 1 or Type 2 Diabetes; Providers/Care Managers; Friends & Family. Novo Nordisk, Inc.	7–10 YRS	1K–5K	English, Spanish	●	●	●	●	●	●			●	●	●				●				**No cost to join, No cost to use.**					●			●				●	●	Not supplied
Dario Engage **Ideal User** Individual managing weight, prediabetes, Type 1 or Type 2 Diabetes; Providers/Care Managers; Friends & Family. DarioHealth	4–6 YRS	50K+	English, Spanish, French, German, Italian, others		●		●	●	●	●	●	●	●	●	●	●	• Smartphone-based blood glucose meter • App level data integration	●	●	●		PMPM or Site License. Details available upon request.	●				●	●	●	●	●			●	●	Peer Review: 16
Fit4D Diabetes Coaching Solution **Ideal User** Individual managing weight, prediabetes, Type 1 or Type 2 Diabetes; Providers/Care Managers; Friends & Family. Fit4D	7–10 YRS	10K–50K	English, Spanish and Chinese	●	●	●	●	●	●	●	●	●	●			●	• Blood Glucose Meter • Mobile Device Integration to Optimize CDE Support: Powered by Glooko	●	●	●		Per patient enrollment	●							●				●	●	Internal Reports: 17
Fruit Street Digital Diabetes Prevention Program **Ideal User** Individual managing weight, prediabetes, Type 1 or Type 2 Diabetes; Providers/Care Managers; Friends & Family. Fruit Street	0–3 YRS	0–1K	English, Spanish (late 2019)			●	●	●	●		●			●	●		• Activity trackers • Digital scales • Smartphone camera: food photos • Telemedicine	●	●	●	●	PMPM. Pay for performance. **Typical cost per user per month: $60**								●			●	●	In Progress
Glooko Diabetes Management Program **Ideal User** Individual managing Type 1 or Type 2 Diabetes; Providers/Care Managers; Friends & Family. Glooko Inc.	7–10 YRS	50K+	English only		●		●		●	●		●	●	●	●	●	• Blood glucose meters • Insulin pumps • Continuous glucose monitors (CGMs) • Fitness devices	●				Customized to fit partner needs: PEPM, PMPM, PEPY, PMPY, PPPY Cost depends on program design and population size.		●	●	⊖		●		●	●			●	●	●	Internal Reports: 18
HabitNu DPP **Ideal User** Individual managing weight, prediabetes, Type 1 or Type 2 Diabetes; Providers/Care Managers; Friends & Family. HabitNu	0–3 YRS	1K–5K	English only	●	●	●	●	●	●					●	●	●	• Activity Tracker • Digital Scale • HabitNu App food diary		●	●		PMPM. **Typical cost per user per month: $15 to $20**	●				●	●	●	●	●			●	●	Internal Reports: 19
HealthSlate **Ideal User** Individual managing prediabetes, Type 2 Diabetes. HealthSlate	0–3 YRS	5K–10K	English, Spanish			●	●	●	●		●			●	●	●	• Activity trackers • Digital scales		●			Performance based milestones. **Typical cost per user per month: $50**						●	●		●			●	●	In Progress
Lark **Ideal User** Individual managing weight, prediabetes, Type 2 Diabetes; Providers/Care Managers; Friends & Family. Lark Technologies	4–6 YRS	10K–50K	English only	●	●	●	●	●	●	●	●	●	●	●	●	●	• Connects with over 100 disease-specific devices under Lark's "bring your own device"* model (Lark drop-ships preferred disease specific devices to members at their home or place of work) • Glucometer • Blood pressure cuff • Digital scale • Fitbit • Passive data sensors in user's phone	●				Range of models, typically PMPM. **Typical cost per user per month: Ranges from $0.45 - $2.00 PMPM** (cost depends on program design and population size.)			●			●	●		●	●			●	●	Peer Review: 20 In Progress: 21
Livongo for Diabetes, Livongo for DPP **Ideal User** Individual managing weight, prediabetes, Type 1 or Type 2 Diabetes; Providers/Care Managers; Friends & Family. Livongo	4–6 YRS	50K+	English, Spanish		●	●	●	●	●	●	●	●	●		●	●	• Blood Glucose Meter	●	●	●		PMPM. **Typical cost per user per month: $70**	●	●	●		●	●		●	●			●	●	Peer Review: 22 Internal Reports: 23, 24
mySugr **Ideal User** Individual managing Type 1 or Type 2 Diabetes; Providers/Care Managers; Friends & Family. mySugr	7–10 YRS	50K+	German, English, French, Italian, Spanish, Swedish, Polish, Dutch, Danish, Finnish, Portuguese, Norwegian, Turkish, Slovenian, Romanian, Greek	●	●	●	●	●	●	●	●	●	●	●	●	●	• Blood Glucose Meters • Smart Insulin Pens • Smart Scales • Continuous Glucose Moniors • Blood Pressure Cuffs	●		●		PMPM. Negotiable for large contracts.	●				●	●		●	●			●	●	Peer Review 25, 26, 27, 28, 29, 30 ROI study in progress
One Drop **Ideal User** Individual managing Type 1 or Type 2 Diabetes; Providers/Care Managers. One Drop	0–3 YRS	50K+	Russian, French, German, Chinese, Spanish, Portuguese, Italian, Arabic, English		●	●	●	●	●	●	●	●	●	●	●	●	• Apple iOS and Apple Watch OS integration, including Health Records & Siri Shortcuts. • Integrates directly with: The One Drop Chrome Bluetooth glucometer, Dexcom, Fibit Integrates health data from many of glucose monitors, fitness trackers, blood pressure cuffs, and apps via Apple Health app (iOS) and Google Fit (Android), including: Dexcom, One Touch, Accu-Chek, Agamatrix, iHealth, Dario, Garmin, Fitbit, Nike+, UP by Jawbone, Misfit, Pebble, Human, Strava, My Fitness Pal, Lose it!, Lark, Qardio, Weight Watchers, Withings, Among many others.	●		●		Range of models: Pay for performance, PMPM, Site License. **Typical cost per user per month: $45-$110 dependent on product offering**	●	●	●		●	●		●	●			●	●	Peer Review 31, 32, 33, 34, 35, 36 Internal Reports 37
PlateJoy Diabetes Prevention **Ideal User** Individual managing prediabetes. PlateJoy	0–3 YRS		English only		●		●	●	●					●	●	●	• Fitbit • Apple Healthkit • Apple Watch • Digital scales	●				Outcomes-based milestones					●			●				●	●	Not supplied
Real Appeal **Ideal User** Individual managing weight, prediabetes, Type 1 or Type 2 Diabetes; Providers/Care Managers; Friends & Family. Real Appeal	0–3 YRS	50K+	English only				●	●	●		●			●	●		• FitBit • Jawbone devices		●	●		Pay for Performance. **$424 per participant per length of the program (1 yr.)**												●	●	Peer Review 38, Internal Reports: 39
SocialDiabetes **Ideal User** Individual managing Type 1 or Type 2 Diabetes; Providers/Care Managers; Friends & Family. SocialDiabetes	4–6 YRS	1K–5K	English, Spanish, French, German, Portuguese, Italian				●	●	●	●	●	●	●	●	●		• Universal connectivity to blood glucose monitors • Various wearable devices	●		●	●	**Free app**	●					●						●	●	●	Not supplied
Solera4me (Solera Network) **Ideal User** Individual managing Type 1 or Type 2 Diabetes. Solera Health	4–6 YRS	50K+	Multiple		●		●	●	●	●	●	●	●	●	●	●	• Wireless scale • Fitbit • Blood pressure monitor		●	●	●	Outcomes-based medical claims submissions		●			●	●	●	●	●			●	●	In Progress
The Omada Program **Ideal User** Individual managing weight, prediabetes, Type 2 Diabetes. Omada Health	7–10 YRS	10K–50K	English, Spanish		●		●	●	●	●			●	●	●		• Digital Scale • Fitness Trackers		●	●	●	Enrollment fee per participant, followed by a fully outcome-based reimbursement model.				●	●	●		●	●			●	●	Peer Review: 40
Transform DPP **Ideal User** Individual managing weight, prediabetes; Providers/Care Managers. Blue Mesa Health	0–3 YRS	5K–10K	English, Spanish, Portuguese, Arabic, Chinese, French	●	●	●	●	●	●		●			●	●	●	• Fitbit • MapMyRun • Garminn • Nokia • MyPlate • Additional integrations	●	●	●	●	Pay-for-performance.	●				●	●		●				●	●	Not supplied
Vida Health **Ideal User** Individual managing weight, prediabetes, Type 1 or Type 2 Diabetes. Vida Health	0–3 YRS	1K–5K	English only		●		●	●	●	●	●	●	●	●	●	●	• Vida participants can continue to use the glucometer they are most comfortable with • Cellular wireless scale • Activity Trackers • Vida supports integrations with 100+ third-party apps and devices and allows participants to track 30+ health-related metrics (e.g., weight, blood pressure, steps, food).	●	●	●	●	Pay for performance. PMPM. **Typical cost per user per month: $60 for Chronic/Lifestyle programs, $240 for Behavioral Health programs**				●	●	●	●	●	●			●	●	Peer Review: 41
Virta Health **Ideal User** Individual managing weight, prediabetes, Type 2 Diabetes; Providers/Care Managers; Friends & Family. Virta Health	0–3 YRS		English only	●		●		●		●	●	●	●	●	●		• Wireless scale			●	●	Pay for performance. PMPY.				●	●	●		●	●			●	●	Peer Review: 42, 43, 44 Internal Reports: 45 In Progress: 46
Virtual Lifestyle Management service (VLM) **Ideal User** Individual managing weight, prediabetes, Type 2 Diabetes. Canary Health	7–10 YRS	1K–5K	English only		●	●	●	●	●				●	●			• Digital scale		●			Fixed amount per enrollee OR milestone based on outcomes. **Typical cost per user per month: $30**				customized per provider needs				●				●	●	Peer Review: In progress Internal Reports: 47, 48
Yes Health All-Mobile Diabetes Prevention Program **Ideal User** Individual managing weight, prediabetes; Providers/Care Managers. Yes Health	0–3 YRS	5K–10K	English only		●		●	●		●			●	●	●	●	• Digital scales and Activity trackers (various models such as Withings and Fitbit) • Smartphone camera (food photos) • Fitness and well being activities (i.e. meals, grocery carts, refrigerators, pantries)		●		●	Pay for performance. PMPM. **Typical cost per user per month: Consumer direct subscription with equipment: $49/month**; health plans and employers will be furnished upon request				●			●		●				●	●	Internal reports

Abacus
https://www.abacushealth.com/diabetes-program/

Betr Health
https://betrhealth.com/

Better Choices, Better Healt
https://www.canaryhealth.com/bcbh-better-choices-better-health/

BlueStar
https://www.welldoc.com/product/

Cappa DPP
https://cappahealth.com/

Cornerstones4Care
http://www.Cornerstones4Care.com

Dario Engage
https://www.dariohealth.com/solutions/dario-engage/

Fit4D Diabetes Coaching Solution
https://www.fit4d.com/

Fruit Street Digital Diabetes Prevention Program
http://www.fruitstreet.com/

Glooko - Diabetes Management Program
https://www.glooko.com/employer/

HabitNu DPP
https://habitnu.com/

HealthSlate
http://healthslate.com/index.html

Lark
https://www.web.lark.com/

Livongo for Diabetes, Livongo for DPP
https://www.livongo.com/

mySugr
https://mysugr.com/

One Drop
https://onedrop.today/

PlateJoy Diabetes Prevention
https://www.platejoy.com/

Real Appeal
https://realappeal.com/

SocialDiabetes
https://www.socialdiabetes.com/en/

Solera4me (Solera Network)
https://www.solera4me.com/

The Omada Program
https://www.omadahealth.com/

Transform DPP
https://www.bluemesahealth.com/

Vida Health
https://www.vida.com/enterprise/

Virta Health
https://www.virtahealth.com

Virtual Lifestyle Management service (VLM)
https://www.canaryhealth.com/vlm-virtual-lifestyle-management/

Yes Health All-Mobile Diabetes Prevention Program
https://www.yeshealth.com/

⊖ = Coming Soon

* May include, mood, emotion, sleep, meditation, tobacco cessation, etc.

1. https://www.ncbi.nlm.nih.gov/pubmed/25046403
2. https://www.abacushealth.com/diabetescasestudies/
3. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5200842/
4. https://www.ncbi.nlm.nih.gov/pubmed/27342265
5. https://www.ncbi.nlm.nih.gov/pubmed/29934284
6. https://www.welldoc.com/wp-content/uploads/2018/05/1.pdf
7. http://care.diabetesjournals.org/content/34/9/1934
8. https://www.welldoc.com/wp-content/uploads/2018/05/Quinn_JMIR_December-2017_Diabetes-Distress-_-Depression-1.pdf
9. https://www.ncbi.nlm.nih.gov/pubmed/24876589
10. https://www.welldoc.com/wp-content/uploads/2018/05/Quinn_Study-Design-MDIS_2009.pdf
11. https://www.ncbi.nlm.nih.gov/pubmed/25692373
12. https://www.welldoc.com/wp-content/uploads/2018/05/Mobile-Prescription-Therapy-The-Potential-for-Patient-Engagement-to-Enhance-Outcomes-1.pdf
13. https://www.welldoc.com/wp-content/uploads/2018/09/DTS-Data-Science-Framework-2015.pdf
14. http://www.welldoc.com/wp-content/uploads/2018/08/WH_19276_0818_WellDoc-WP-1.pdf
15. https://drive.google.com/file/d/1lZ7FpIHrWyQs4TYJmmywu8Kzs1KUmHq-/view
16. https://ada.scientificposters.com/epsSearchADA.cfm (Click Search - - Enter the posters #s: 76-LB, 77-LB and 78-LB)
17. https://static1.squarespace.com/static/5669e4ed69492ea90789f7d9/t/59fb4ce0085229057c8aed39/1509641441821Fit4D+Whitepaper+-+Improving+Diabetes+Health+Through+Scalable+Personalized+Coaching.pdf
18. https://www.glooko.com/resources/#case-studies
19. http://theimpactengine.com/prana-changing-diabetes-prevention-management/
20. https://diabetes.jmir.org/2017/2/e28/
21. https://clinicaltrials.gov/ct2/show/NCT03288142
22. https://www.ncbi.nlm.nih.gov/pubmed/28698167
23. https://www.livongo.com/impact.html#Clinical_Outcomes
24. https://www.livongo.com/docs/pdf/LivongoCaseStudy-CostSavings.pdf
25. https://assets.mysugr.com/website/mysugr.com-wordpress/uploads/2017/03/attd-2013-poster.pdf?_ga=2.264401608.675726917.1540898404-1609013323.1540898404
26. https://assets.mysugr.com/website/mysugr.com-wordpress/uploads/2017/03/ada-2014-poster.pdf?_ga=2.264401608.675726917.1540898404-1609013323.1540898404
27. https://assets.mysugr.com/website/mysugr.com-wordpress/uploads/2017/03/ada-2015-poster.pdf?_ga=2.25869050.675726917.1540898404-1609013323.1540898404
28. https://assets.mysugr.com/website/mysugr.com-wordpress/uploads/2017/03/dtm-2016-poster.pdf?_ga=2.25869050.675726917.1540898404-1609013323.1540898404
29. https://assets.mysugr.com/website/mysugr.com-wordpress/uploads/2017/03/attd-2017-poster.pdf?_ga=2.37404391.675726917.1540898404-1609013323.1540898404
30. https://assets.mysugr.com/website/mysugr.com-wordpress/uploads/2017/06/ada-2017-poster.pdf?_ga=2.37404391.675726917.1540898404-1609013323.1540898404
31. https://www.eventscribe.com/2017/SBM/ajaxcalls/PosterInfo.asp?efp=RUxVVFJNS0QzMzkw&PosterID=88887&rnd=0.5795186
32. https://diabetes.jmir.org/2017/2/e21/
33. https://mhealth.jmir.org/2017/11/e179/
34. http://www.abstractsonline.com/pp8/#!/4297/presentation/45862
35. http://diabetes.diabetesjournals.org/content/diabetes/66/Supplement_1/A173.full.pdf
36. https://www.eventscribe.com/2017/SBM/ajaxcalls/PosterInfo.asp?efp=RUxVVFJNS0QzMzkw&PosterID=80081&rnd=0.7335107
37. https://onedrop.today/evidence/
38. https://onlinelibrary.wiley.com/doi/10.1002/oby.22309
39. https://realappeal.com/how-it-works/backed-by-science
40. https://www.omadahealth.com/outcomes
41. https://mhealth.jmir.org/2017/6/e80/
42. https://diabetes.jmir.org/2017/1/e5/
43. https://link.springer.com/article/10.1007%2Fs13300-018-0373-9
44. https://cardiab.biomedcentral.com/articles/10.1186/s12933-018-0698-8
45. https://www.virtahealth.com/research
46. https://clinicaltrials.gov/ct2/show/NCT02519309
47. https://www.gpbch.org/docs/nacdd_case_study_report_final_version_high_resolution.pdf
48. https://drive.google.com/file/d/1lZ7FpIHrWyQs4TYJmmywu8Kzs1KUmHq-/view

Abacus Diabetes Care Rewards Program
https://www.abacushealth.com/diabetes-program/

With its provider-centric approach to care coordination, the Abacus Program seeks to close gaps in care. Its comprehensive diabetes management solution addresses:

- Provider engagement
- Medication management and adherence
- Behavior change and lifestyle modification
- Glucose monitoring

The Abacus Program leverages a patent pending behavior-based incentives program. Incentives are earned only by members actively engaged with the program and their providers.

IDEAL USER — Individual managing weight, prediabetes, Type 1 or Type 2 Diabetes; Providers/Care Managers; Friends & Family.

Betr Health
https://betrhealth.com/

Betr Health's patent pending methodology strives for balance between human touch and technology. The program's science-based approach is rooted in digestive health, lowering inflammation and insulin resistance. Each user is paired with:

- A Head Coach who helps remove a user's barriers to success and creates a tailored plan for the individual using proven methods
- A Lifestyle Implementation Specialist who fits Betr into user's time and budget.
- Daily guidance fits into user's food sensitivities and health goals. Betr Health believes there is no one-size-fits-all solution and helps individuals, regardless of their stage of life, fit the program into their lives from anywhere in the world.

IDEAL USER — Individual managing weight, prediabetes, Type 1 or Type 2 Diabetes.

Better Choices, Better Health
https://www.canaryhealth.com/bcbh-better-choices-better-health/

(Offered by Canary Health) Based on Stanford University's Chronic Disease Self-Management support curriculum, Better Choices, Better Health is a 6-week online small group workshop to help people living with chronic conditions to manage them better. Better Choices, Better Health partners with health plans, healthcare providers and employers to empower self-management with the digital tools, group support and coaching that put individuals back at the center of their health journey.

IDEAL USER — Individual managing weight, prediabetes, Type 1 or Type 2 Diabetes.

BlueStar
https://www.welldoc.com/product/

BlueStar is a fully integrated and automated solution supporting employees with diabetes, as well as hypertension and weight tracking challenges that so often accompany diabetes. A patented AI engine drives scalability and ease of implementation.

- Solution works off- and online, with or without internet/cellular connection.
- Meter-agnostic - integrates with J&J's LifeScan OneTouch Verio Flex® meter, or employee can enter data from any BG meter.
- Platform can scale to address diseases across the chronic disease domain with a single app user experience.
- Provides personalized, clinically precise feedback to users, in real-time, at the point of risk (messages validated by the FDA).
- Includes restaurant finder w carb counts, a barcode scanner and ability to take picture of food and identify carb count.

Note: The app is also available as the OneTouch Reveal® Plus brand through LifeScan, Inc., powered by BlueStar®. LifeScan is a partner of WellDoc, Inc., the makers of BlueStar®. Feature enhancements to BlueStar® are added to OneTouch Reveal® Plus in a phased approach.

IDEAL USER — Individual managing Type 1 or Type 2 Diabetes; Providers/Care Managers; Friends & Family.

Cappa DPP
https://cappahealth.com/

Cappa DPP is a year long, high-touch virtual experience for National Diabetes Prevention Program participants. Users are assigned their own Registered Dietitian and are guided through interactive online video lessons using simple concepts to create lasting change. Users can easily journal their food and activity through Cappa's app or website.

Cappa's on-boarding & readiness interview processes can guarantee specific engagement or biometric outcomes are met. Cappa's Implementation Plan provides branded customer awareness campaigns, recruiting campaigns and qualifying processes for program candidates.

IDEAL USER — Individual managing weight, prediabetes, Type 1 or Type 2 Diabetes; Providers/Care Managers; Friends & Family.

Cornerstones4Care
http://www.Cornerstones4Care.com

Cornerstones4Care® is a support program that provides information, tools, and resources to help individuals manage their diabetes. Members receive benefits like calls from a diabetes educator and educational emails and can receive personalized support using the Cornerstones4Care® Powered by Glooko app to track blood sugar, activity, medicine, and meals all in one place.

IDEAL USER — Individual managing Type 1 or Type 2 Diabetes; Providers/Care Managers; Friends & Family.

Dario Engage
https://www.dariohealth.com/solutions/dario-engage/

The Dario Engage Platform provides full coverage healthcare solutions that are easily customized to integrate with any clinical programs covering all facets of diabetes management and care: Type 1, Type 2, gestational diabetes, and prediabetes. Includes:

- Monitoring: Real-time data via smartphone-based meter, 100% data capture.
- Engagement: Personalized platform, mobile application, digital coaching and education, branded communities, and support.
- Management: Clinical program integration, automated processes, and reporting.

IDEAL USER — Individual managing weight, prediabetes, Type 1 or Type 2 Diabetes; Providers/Care Managers; Friends & Family.

Fit4D Diabetes Coaching Solution
https://www.fit4d.com/

Unlike apps or call centers, Fit4D strives to optimize the mix between humans and technology to deliver and improve measurable health outcomes in an affordable manner.

- Each person is paired with a Certified Diabetes Educator coach who teaches them how to manage and monitor their diabetes.
- Coaches work to break through medication adherence barriers and motivate healthy habits, and can identify situations where employees may need immediate support.
- To reduce the risk of diabetes complications, Fit4D focuses on helping patients improve adherence and control blood sugar, while reinforcing the importance of diabetes screenings to keep users on track.
- Employees can connect their data back to any of the 7,000+ providers who currently use the platform, ensuring continuity of care.

IDEAL USER — Individual managing weight, Type 1 or Type 2 Diabetes; Providers/Care Managers; Friends & Family.

Fruit Street Digital Diabetes Prevention Program
http://www.fruitstreet.com/

Fruit Street delivers the CDC's Diabetes Prevention Program via telemedicine. The telemedicine model allows Fruit Street to provide frequent (28 x's per year) and high quality engagement with registered dietitians. Program includes:

- Small group telehealth sessions via video conference or phone with registered dietitians.
- Wearable devices and dietary tracking in the Fruit Street mobile application.
- Support in lowering the risk of developing Type 2 diabetes.
- Support in decreasing the risk of heart attack or stroke, & improving overall health and energy.

IDEAL USER — Individual managing weight, prediabetes; Providers/Care Managers; Friends & Family.

Glooko — Diabetes Management Program
https://www.glooko.com/employer/

Glooko's ""Bring-Your-Own-Device"" diabetes management solution is flexible and compatible with over 95% of glucose meters, insulin pumps and continuous glucose monitors.

- Sync glucose data to iOS or Android smartphone.
- Track medication, exercise, and food, and easily see that information on smartphone.
- Share data with care team.

For employers, Glooko offers Glooko Plus, a turnkey program which includes integrated coaching to provide personalized insights to employees and seeks to enhance engagement and outcomes by improving estimated A1C levels and increasing testing frequency.

IDEAL USER — Individual managing Type 1 or Type 2 Diabetes; Providers/Care Managers; Friends & Family.

HabitNu DPP
https://habitnu.com/

HabitNu DPP delivers the in-person Medicare Diabetes Prevention Program (MDPP) and was developed for both virtual and in-person delivery. Program includes:

- Weekly group sessions with a lifestyle coach conducted through video chat or phone.
- A downloadable SmartApp containing a food diary, DPP curriculum delivered as short videos, and weight and exercise logs.
- Enhanced engagement: Participants motivate each other and chat with lifestyle coach through a secure online chat forum.
- Coaches monitor the participants through Admin dashboard - the platform alerts coaches when a participant slips.

IDEAL USER — Individual managing weight, prediabetes, Type 1 or Type 2 Diabetes; Providers/Care Managers; Friends & Family.

HealthSlate
http://healthslate.com/index.html

HealthSlate helps people with diabetes to develop and stick with healthy habits that can help them lose weight and reduce the risk of chronic disease. Combining expertise in consumer behavior, mobile technology and evidenced-based medicine, HealthSlate improves patients' quality of life and health outcomes. Program details:

- Includes the tools and personal coaching needed to make lasting change.
- Individuals choose whatever approach they prefer: phone calls, mobile app, website, or Alexa.
- Users do not need to give up their favorite foods, write down everything they eat, or visit a clinic or classroom.
- Highly individualized programs of education, behavior modification and clinical support.

IDEAL USER — Individual managing prediabetes, Type 2 Diabetes

Lark
https://www.web.lark.com/

An infinitely scalable and clinically validated diabetes control platform with 24/7 unlimited one-on-one counseling, powered by a combination of A.I. with behavior change design through Cognitive Behavioral Therapy. Lark helps users eat more healthfully, become more active, lose weight, improve their sleep, and manage their stress, all the while guiding them toward a better understanding of how these wellness elements will help them prevent diabetes.

- Lark Coaches are trained to coach members with programs unique to Diabetes, Hypertension, and Prediabetes.
- Lark Coaches connect users with clinical resources while sharing relevant data such as glucose levels, activity, medication adherence, and nutrition in real-time.
- Lark coaches text refill suggestions and fulfill orders in the app.

IDEAL USER — Individual managing weight, prediabetes, Type 2 Diabetes; Providers/Care Managers; Friends & Family.

Livongo for Diabetes, Livongo for DPP
https://www.livongo.com/

Livongo is a catalyst for behavior change that uses personalized health insights to treat pre-diabetes, diabetes, and high blood pressure. Livongo utilizes a cellular enabled meter to obtain real-time data from members. Investment in data science allows Livongo to analyze this real-time data and other information on members to deliver a personalized experience. Livongo coaches are Certified Diabetes Educators (CDE's) who specialize in behavior change and Diabetes Lifestyle management. Livongo offers unlimited diabetes test strips for members, removing a big barrier from successful diabetes management.

IDEAL USER — Individual managing weight, prediabetes, Type 1 or Type 2 Diabetes; Providers/Care Managers; Friends & Family.

mySugr
https://mysugr.com/

mySugr is app-based, all-around care for people with diabetes – made by people with diabetes (the majority of mySugr's founders have diabetes themselves.). The mySugr Bundle offers unlimited test strips, an Accu-Chek® Guide meter, the mySugr app and diabetes advice available anytime anywhere. mySugr leverages an app-based patient interface for smart tracking, integrated devices for seamless transfer of health data, care management with Certified Diabetes Educators and digital population health management using a risk stratification platform.

IDEAL USER — Individual managing Type 1 or Type 2 Diabetes; Providers/Care Managers; Friends & Family.

One Drop
https://onedrop.today/

One Drop | Mobile empowers user to track and analyze all their diabetes data — glucose, medications, food, and activity — with just one app. One Drop | Chrome is a Bluetooth blood glucose monitor that syncs with the One Drop | Mobile app. Get all the test strips you need with a One Drop | Premium or One Drop | Plus subscription. One Drop | Experts is a personal diabetes coaching program designed to help user reach their health goals. Work with a CDE available 24/7 to get support in real time.

- Easily schedule medication reminders, track A1c and weight, view statistics and set goals.
- Provide and receive support from other users, get tips and advice to help with daily diabetes management.
- Sync blood glucose, fitness, nutrition, and other health data from thousands of apps and devices.
- Automated Decision Support via proprietary AI to generate blood glucose predictions and actionable insights for mobile users.

IDEAL USER — Individual managing Type 1 or Type 2 Diabetes; Providers/Care Managers.

PlateJoy Diabetes Prevention
https://www.platejoy.com/

PlateJoy is a digital Diabetes Prevention Program that focuses on healthy eating, through personalized meal plans tailored to over 50 different data points about each individual participant. Users receive custom recipes and shopping lists designed to reduce the number of food decisions made each day. Ingredient delivery is also available in over 250 cities. The program also includes live coach support, a wireless scale and activity tracker.

IDEAL USER — Individual managing prediabetes.

Real Appeal
https://realappeal.com/

Real Appeal is a convenient year-long weight-loss program, based on clinical science and proven methods to combat diabetes, and accessible 365 days a year, 24 hours a day through desktop, mobile or tablet. The program may be covered at no additional cost by user's health insurance plan. Includes:

- Up to a year of support from a Transformation Coach with customized plan that fits the user's needs, preferences and goals.
- 24/7 access to digital tools and dashboards that help track user's food, activity and weight.
- A Success Kit with fitness guides, recipe book, digital scale, resistance band, workout DVDs, and more.
- Support from weekly online group classes where users can share ideas and learn from each other.

IDEAL USER — Individual managing weight, prediabetes, Type 1 or Type 2 Diabetes; Providers/Care Managers; Friends & Family.

SocialDiabetes
https://www.socialdiabetes.com/en/

SocialDiabetes is a free app for diabetes management available on both Android and Apple devices. Developed by a Type 1 diabetes patient, the app provides a bolus dose recommendation before each meal. App includes:

- Ability to count carbs, adjust insulin doses and improve blood sugar levels.
- Ability to share records with healthcare professional in real time.
- Universal connectivity to glucose monitors.
- Social network coming soon.

IDEAL USER — Individual managing Type 1 or Type 2 Diabetes; Providers/Care Managers; Friends & Family.

Solera4me (Solera Network)
https://www.solera4me.com/

Solera solves for "program fatigue" engagement, pay for performance and outcomes transparency as the managed services organization for a curated network of community organizations and digital apps. Solera connects individuals to the ""best fit"" intervention based on their unique goals, needs and preferences, driving engagement and outcomes. Solera submits medical claims to the health plan for services provided by our network partners. Solera is HITRUST certified and is fully delegated by the plan to administer diabetes prevention and management programs through an integrated network model. Solera is responsible for engagement and connection to a curated and actively managed national network of community organizations and digital solutions, bridging care from the clinic to the community.

IDEAL USER — Individual managing weight, prediabetes, Type 1 or Type 2 Diabetes.

The Omada Program
https://www.omadahealth.com/

Omada is a digital behavior change program that can help users lose weight, reduce the risk for chronic disease, and feel better. The program tracks user's weight, food, and activity to uncover previously unrecognized habits and opportunities for change.

- No counting calories or weighing portions - users take smartphone pictures of meals and enter brief descriptions.
- Users can track steps with smartphone or wearable device and weight with a scale that automatically syncs with user's account.
- Based on user's engagement and data science, user's Omada health coach provides support and guidance.
- Weekly interactive lessons prompt users to rethink what they know about food, activity, sleep and stress.
- New offering combines type 2 diabetes plus hypertension self-management.

IDEAL USER — Individual managing weight, prediabetes, Type 2 Diabetes.

Transform DPP
https://www.bluemesahealth.com/

Based on the CDC's National Diabetes Prevention Program, Blue Mesa Health's Transform DPP provides remote, tailored diabetes prevention programs to employees, and covered individuals with prediabetes. The program includes:

- Wireless scale and activity tracker for monitoring progress.
- Private peer community moderated by a coach.
- Smartphone app as hub for communication, curriculum and tracking.
- Tailored to 6 languages w dedicated culturally specific programs for different user groups (Hispanic, Cantonese, low literacy, etc.).

IDEAL USER — Individual managing weight, prediabetes; Providers/ Care Managers.

Vida Health
https://www.vida.com/enterprise/

Vida provides continuous care to help people tackle the root cause of their diabetes. Users select a personal coach based on personality, coaching style, and expertise and receive weekly audio/video consults and regular messaging support via the Vida app. Evidence-based content is tailored to each participant based on disease severity, unique interests, and self-reported barriers.

- Advanced analytics & machine learning optimize user experience, engagement, behavior change, and clinical outcomes.
- Support for multiple conditions / users with co-morbidities.
- Device agnostic — users can keep preferred devices or Vida can provide best-in-class devices with free test strips for the duration of the program.
- Platform content is appropriate for all health and technology literacy levels.

IDEAL USER — Individual managing weight, prediabetes, Type 1 or Type 2 Diabetes.

Virta Health
https://www.virtahealth.com/

Virta strives for type 2 diabetes reversal. Virta also seeks to improve other chronic conditions associated with diabetes such as inflammation and liver function.

- A metabolic health specialist provides continuous medical supervision, check-ups, and safe medication reductions.
- Measuring blood glucose, ketones, weight, and more helps personalize the Virta Treatment to individual's biochemistry.
- A nutrition and behavior expert answers user's questions, helps form habits, and keeps user accountable.
- Virta's mobile and desktop app provides immediate access to care.
- Users learn from a structured online curriculum, can access library of recipes, guides, and meal plans for any dietary preference
- Users can connect with other Virta patients to find support and share tips in a positive, moderated environment.

IDEAL USER — Individual managing weight, prediabetes, Type 2 Diabetes; Providers/Care Managers; Friends & Family.

Virtual Lifestyle Management service (VLM)
https://www.canaryhealth.com/vlm-virtual-lifestyle-management/

(Offered by Canary Health.) Developed by Stanford University's Patient Education Research Center, Canary Health's Virtual Lifestyle Management is not a diet, it's a lifestyle self-management program for lasting change. VLM empowers participants to commit to and make small changes over the course of 1 year that can help lower A1C, keep weight off for the long-term and improve overall health and well-being. Program includes:

- 16 weekly, followed by 8 monthly self-guided lessons with 24/7 group support.
- A tailored experience designed to fit individual's lifestyle and personal health goals.
- Proactive coaching from trained health coaches in a private and secure environment.
- Pedometer, digital scale, tracking tools, fat counter book and offline technical support.

IDEAL USER — Individual managing weight, prediabetes, Type 2 Diabetes.

Yes Health All-Mobile Diabetes Prevention Program
https://www.yeshealth.com/

The Yes Health program is based on proven science from the Diabetes Prevention Program (DPP) trial, Stanford Persuasive Technology Lab and other leading organizations. The program provides:

- A personalized plan with easy progress tracking to help users meet their goals.
- In-the-moment, asynchronous, mobile coaching by certified nutritionists, licensed fitness trainers, and wellbeing diabetes-prevention experts (no coach appointments needed online or offline).
- Familiar mobile hot triggers such as picture taking, calendaring and texting.
- Scalable high touch member experience via CRM coach dashboard and rules-based data automation engines leading to a high coach-to-member care ratio.

IDEAL USER — Individual managing weight, prediabetes; Providers/ Care Managers.

Glucose Monitors with Associated Apps

The Digital Tools chart accompanying this report contains a selection of diabetes prevention and management tools currently marketed directly to employers that offer a variety of features that may also integrate with existing blood glucose monitors on the market.

By contrast, the following list details a number of blood glucose monitors that have developed associated digital apps to enhance the user experience with their particular meter and may also offer additional features.

Contour Next One Smart Meter and Contour Diabetes App

By integrating your blood glucose (BG) meter with a smartphone app you can simplify the management of your diabetes. BG results captured throughout the day can be automatically synced and logged. And over time, your results may create meaningful insights into how your activities affect your BG levels, which can help improve your understanding of your diabetes. All the while being on the same platform you use for so many other aspects of your life — your smartphone.

Dexcom G6 Continuous Glucose Monitoring System

The Dexcom G6 CGM is FDA-permitted to make diabetes treatment decisions without confirmatory fingersticks or calibration. Includes a small sensor worn under the skin, a transmitter, and a smartphone app. Always know your number with just a quick glance at your smart device. Trend lines show you where your glucose levels are heading and how fast they're getting there, so you can take action. Dexcom CGM is proven to lower A1C and reduce hypoglycemic incidents.

Fora TN'G (Test N'Go) Voice Blood Glucose Meter (Bluetooth 4.0 & Free App)

The meter is designed to guide the user through testing instructions and will speak the final results to the user. App allows user to log activities and provides graphic data analysis to allow for seamless diabetes management and monitoring.

GlucoMe Blood Glucose Monitor & GlucoMe Mobile App

The wireless GlucoMe Blood Glucose Monitor measures and seamlessly communicates blood glucose data to any iOS or Android mobile device. With no wires or complex communication protocols, reliable ongoing health information is immediately available to patients and caregivers via the GlucoMe Mobile App and to medical professionals via GlucoMe's cloud-based Digital Diabetes Clinic.

Guardian Connect CGM & Sugar.IQ & Guardian Sensor 3 & Guardian Connect Transmitter

The new Sugar.IQTM diabetes assistant works exclusively with GuardianTM Connect CGM. Using the same supercomputer technology that can predict global weather patterns, the Sugar.IQTM assistant continually analyzes everything that can affect your glucose1 levels.

iHealth Smart Wireless Gluco-Monitoring and nor Cluco-Monitoring

iHealth Smart takes readings like you're used to with an old glucometer, but adds a digital twist. Its app becomes your digital logbook that presents your data in simple and easy to understand ways such as color-coded data, charts, and graphs.

MyGluco Smart Glucose Meter & Bewell Connect App

MyGluco is a smart glucose meter used to measure blood sugar levels and Hba1c which can help you detect hyperglycemia. Data syncs directly to your iOS or Android device in the BewellConnect app.

OneTouch Verio Flex Meter & OneTouch Reveal App

Together, the OneTouch Verio Flex® meter and the OneTouch Reveal® app change the way you see your blood sugar.

- App draws a timeline of important blood sugar events, highlighting when youu have been repeatedly out of range.
- Transforms data into quick visual snapshots that connect your blood sugar with food, insulin, and activity.
- Works together with your OneTouch Verio Flex® meter so you have the information you need, when you need it
- See and share your progress with your family, friends, or your trusted care network.

Smart Meter's iGlucose Diabetes Management Solution

The iGlucose solution uses cell-enabled technology to automatically transmit real-time blood glucose results, enabling the proactive management of diabetes so that healthcare professionals can make better clinical decisions, while saving time and money.

Tru Metrix Air & Tru Manager Air App

Bluetooth® Smart Connectivity, No coding, As Fast as 4 Seconds, Tiny 0.5 microliter sample size, Alternate site testing, Store 1000 results with time/date, 7-, 14-, 30-, 60-, and 90- day averaging, Event tagging, 4 testing reminder alarms, Audible fill detection, Control Detection, Ketone test reminder, Strip release button, Download capabilities.

Innovative/Unique Digital Diabetes Solutions

The following digital solutions are outside the scope of the main set of tools we researched. Still, they offer unique solutions that may be of interest to some employers. The following descriptions are from the providers.

Proteus Discover

Proteus Discover is comprised of ingestible sensors, a small wearable sensor patch, an application on a mobile device and a provider portal. Once activated, Proteus Discover unlocks never-before-seen insight into patient health patterns and medication treatment effectiveness, leading to more informed healthcare decisions for everyone involved.

Where can Proteus Discover make the biggest impact? With high-risk populations, including patients with hypertension and diabetes. In a recent study, patients with uncontrolled hypertension and diabetes who used Proteus Discover achieved significantly greater reduction in blood pressure and LDL cholesterol, and were more likely to reach their BP goal than usual care without Proteus Discover.

BlueLoop

BlueLoop is the one and only tool that allows kids and their caregivers to log and share diabetes information – both online and with the app – in real time, via instant e-mail and text message, giving peace of mind to parents, more class time for students and fewer phone calls and paper logs for school nurses. Online, parents can share real-time BG logs with their clinicians, who can see logs (in the format they prefer), current dosages and reports, all in one place.

Our insulin calculator provides accurate and consistent dosing information between multiple caregivers both at home and at school. This precise dosing and documentation will aid providers in insulin dose adjustments to improve clinical outcomes.

DIY Diabetes Technology

While digital diabetes solutions are constantly improving, there is still a gap between what people with diabetes need and what is available on the market. Some frustrated diabetes patients have chosen to take matters into their own hands.

Please note that while some of the solutions that innovators have developed have gained a dedicated following, they are considered experimental and have not been officially tested or approved for therapy.

Dana Lewis is the creator of #DIYPS, the Do-It-Yourself Pancreas System, and a founder of the #OpenAPS movement. In May of 2016, she published an article describing her experience with the mainstream market technology she had been using to manage her Type 1 diabetes – she was always worried about monitoring her blood sugar levels at night and whether the alarm on her current system would successfully wake her up. The article below describes what she – and several other coders and diabetes sufferers – did to come up with a solution of their own, using a technique that has come to be known as 'looping':

How I designed a "DIY" closed loop artificial pancreas

The work of Lewis and other diabetes patients-turned-innovators has resulted in a number of DIY solutions that as many as 2,000 frustrated diabetes sufferers currently use at their own risk:

The $250 Biohack That's Revolutionizing Life With Diabetes

The NEBGH will watch these technologies and update members as these emerge into the mainstream.

A Few DIY Digital Diabetes Solutions

Some of the DIY solutions that have emerged from the work of diabetes patients-turned-innovators:

Loop[1]

Spike[2]

Nightscout[3]

1 *Loop – https://loopkit.github.io/loopdocs/*

2 *Spike – https://spike-app.com/#*

3 *Nightscout – http://www.nightscout.info/*

Thinking of Implementing a Digital Tool for your Employees with Diabetes?

Here's what you'll need to consider

What is it you want to achieve?

- ○ Improve the health of employees and family members with pre-diabetes or diabetes?
- ○ Minimize medical expenditures relating to diabetes?
- ○ Improve employee engagement in their health, especially relating to diabetes?
- ○ Raise awareness on diabetes, the risks and ways of preventing and managing the condition?

Integration, marketing and engagement?

- ○ How will the digital solution compliment existing resources for diabetes?
- ○ How will a digital solution be marketed to employees? Family members?
- ○ Are there any groups of employees who may be at higher risk who need to be targeted?
- ○ What are some HIPAA-compliant ways you can reach your employees with diabetes for a successful rollout of a new benefit targeted to them?
- ○ Do you want to incentivize employees to use and adhere to using the digital solution?

Company IT and access considerations

- ○ What are the data privacy considerations for each country in which the digital solution will be launched?
- ○ What IT approval process is required?
- ○ Are there any challenges to access to a digital solution?
- ○ What languages are needed?

How much are you willing to pay?

- ○ What pay structure do you envision?
- ○ Per employee per month fee for all eligible employees? Or just for employees enrolled in the digital solution?
- ○ Pay for performance, based on desired health outcomes or engagement goals?
- ○ Will employees share the cost?

How will you measure success?

- ○ Return on investment in the digital solution of your choice?
- ○ Decreased medical expenditures relating to diabetes?
- ○ Reduction in health risks (obesity, physical activity, nutrition etc.)?
- ○ Reach of and sustained engagement with the digital solution?
- ○ Employee feedback on the digital solution?

About NEBGH

Northeast Business Group on Health (NEBGH) is an employer-led coalition of healthcare leaders and other stakeholders. We empower our members to drive excellence in health and achieve the highest value in healthcare delivery and the consumer experience.

Our Solutions Center delivers information, education and guidance for employers on managing high-cost health conditions and improving employee population health and wellbeing.

Acknowledgements

We gratefully acknowledge Boehringer-Ingelheim, Merck and Sanofi for their financial support of this project, and their ongoing interest in, and support of, NEBGH's work in diabetes management. NEBGH would like to acknowledge and thank Anna Stumpf and Greg Crawford for their editorial and copyediting assistance, and Joel Sadagursky for graphic design and layout. NEBGH is solely responsible for the research, analysis, and content of this document.

Boehringer Ingelheim | MERCK Be well | SANOFI


NORTHEAST
BUSINESS GROUP ON HEALTH


solutionscenter