Digital Diabetes Prevention and Management Solutions

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March 2016

NORTHEAST BUSINESS GROUP ON HEALTH

solutionscenter

Employers indicate that diabetes will continue to be one of their top concerns well into the future. They struggle to implement a mix of programs and benefit strategies that will be effective in helping employees prevent the disease or manage it once they have it. A spate of new digital tools in the diabetes space promises to help employers improve the effectiveness of their offerings, and employers have indicated significant interest in exploring them. However, they also say they are overwhelmed by the number and diversity of these new tools and need help evaluating which ones might be worth exploring for their employee populations.

Introduction

Northeast Business Group on Health (NEBGH) issued a May 2015 Solutions Center report, "Transforming Diabetes Management: New Directions for Employers," that pointed to a number of new innovative approaches to workplace diabetes interventions, including digital solutions. Based on NEBGH members' interest in better familiarizing themselves with these solutions, NEBGH conducted an introductory market scan and evaluation of a number of digital diabetes tools to serve as a useful entry point into this arena for employers.

Challenges Addressed by Digital Health Tools and Solutions

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

- **Employee/Patient Engagement:** Features such as personalization and convenience, and the use of behavioral economics, to appeal to specific patient characteristics can increase engagement.
- **Collaboration:** Person-centered, team-based collaboration is more easily facilitated among users, clinicians, peers, coaches and others involved in care delivery.
- **Behavior Change:** Information, guidance and support delivered easily and consistently can help users sustain behavior changes.

All of which lead to:

- **Better Outcomes:** Digital health tools and solutions hold the promise of improved health outcomes and reduced healthcare expenses through improved engagement, better collaboration and sustained behavior change.

Employers are eager to see whether this promise is borne out through pilots and broader implementations.

Obstacles to effective implementation include:

- **Participant recruitment and enrollment;**
- **Sustained employee engagement;**
- **Lack of integration with other health initiatives;**
- **Uncertain value or return on investment.**

How Digital Health Tools and Solutions Can Make a Difference

Convenience

Digital tools and solutions "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," delivering actionable support to users precisely when they need it. Peers, coaches and care providers can collaborate conveniently through messaging, social networks and video conferencing.

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 and Management

Capturing clinical and psychosocial data continuously allows for seamless tracking and analysis by connected users, peers, coaches and care teams. Data is collected in multiple ways based on the capabilities of tools and solutions and preferences of the user. "Wearables" such as activity trackers, blood pressure cuffs or continuous glucose monitoring pumps can seamlessly upload data into the cloud. Other information such as diet and mood can be entered manually by the user. Automatic displays of customized information allows users to better understand trends and analyze the effects of behavior change on their health.

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 act as a catalyst for improved overall diabetes and health management.

Coaching

Digital tools and solutions 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. Some provider-based care management tools and solutions allow a user's existing care team to provide remote coaching.

Socialization

Many digital tools and solutions engage people beyond an individual user and a 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 may 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 will begin receiving 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 may be caught and addressed before an adverse event occurs, serving as an opportunity for early intervention to prevent behavioral and physical health relapses.

Digital Solutions To Employee Populations: Many Delivery Choices

Employers and their populations may have access to a range of digital diabetes solutions directly, from third-party vendors, or through health plans and providers.

- **Health plans** collaborate with vendors to provide digital programs to members, often as an existing benefit or a buy-up.
- **Providers** may invest in a tool or solution to engage with all diabetes patients across a practice.
- **Third-party vendors** contract with employers to offer programs to an employee population or specific sub-sets. Pricing is often driven by performance against milestones or on a per-participant per-month basis.
- Many diabetes and prediabetes management tools and solutions are available **direct to consumers**, often online or in a mobile app store, such as iTunes or Google Play Store.

HOW TO USE THE FOLLOWING TABLE:

Benefit professionals may use this table as a sample of some 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, nor does the "engagement indicator" reflect the overall value or efficacy of a solution or company. Information was captured through online marketing materials, a brief survey completed by a number of vendors, and phone calls conducted by NEBGH staff. Programs may have more capabilities than those indicated in the table.

Hopefully, the table will help guide employers as they determine what digital features are most important in addressing the challenges they face with workplace diabetes programs, and provide a starting point as they seek to identify solutions that match up accordingly.

Terms used in the table

Educational Content: Diabetes-specific content generally delivered through:

- **A personalized newsfeed** based on a user's preferences, condition, personality and behavior;
- **Learning modules** such as those in the CDC Diabetes Prevention Program; and/or
- A library of **general information** related to diabetes and lifestyle modification.

Personal Information Tracking: Biometric, behavioral and psychographic data are entered by the user and tracked in collaboration with care teams, including:

- Basic: **diet, weight, activity;**
- Biometric: **blood sugar, blood pressure;**
- Advanced: **mood/emotion, medication management, goal setting and tracking.**

Social: Users connect with peers through:

- Allowing specific **friends/family** to view and comment on progress and information remotely,
- Providing support to a **group** of individuals progressing through a program together on a periodic basis,
- A **social network** similar to Facebook;
- **Competitions** through which users compete in weight loss or healthy behaviors.

Coaching and Clinicians: Support is delivered through:

- **Live** coaches employed by the company;
- **Algorithim-driven virtual coach;**
- A user's **existing provider.**

Solutions are categorized based on primary capability, but many companies offer more than one solution.

Primary Capabilities:

- Digital Group-Based Health Course with Live Coaches
- Integrated Glucometer with Enhanced Communication Feature
- Scripted Algorithm-Driven Coaching
- Device Data Download and Display
- Provider-Based Care Management Platform
- Individualized Live Coaching

Digital Diabetes Prevention and Management Solutions

	OVERVIEW	ENGAGEMENT INDICATOR	EDUCATIONAL CONTENT			PERSONAL INFORMATION TRACKING							SOCIAL				COACHING & CLINICIANS		
			Personalized Newsfeed	Learning Module	General Information	Diet	Weight	Activity	Blood Sugar	Blood Pressure	Mood/Emotion	Meds Management	Goal Setting and Tracking	Friends/Family	Group	Social Network	Competitions	Live	Algorithim/Virtual Coach	Existing Provider
PRIMARY CAPABILITY: **Digital Group-Based Health Course with Live Coaches****	**Blue Mesa Health*** A digital platform to deliver the CDC's Diabetes Prevention Program. The platform facilitates peer support and provides coaching through various media, including video and messaging. Users receive activity trackers and a digital scale. **DELIVERY METHOD:** E HP P		◇	◇		◇	◇	◇							◇	◇		◇	◇	◇
	Canary Health* Two diabetes-related programs including an online platform to deliver the CDC's Diabetes Prevention Program and a Chronic Disease Self-Management Program that can be tailored to users with diabetes. **DELIVERY METHOD:** HP P			◇		◇	◇	◇			◇	◇	◇		◇			◇		
	CAPPA (My Dietitian)* A digital platform connecting users to a registered dietitian through video, messaging and email every day. My Dietitian also supports the CAPPA program, a platform to deliver the CDC's Diabetes Prevention Program. **DELIVERY METHOD:** E HP			◇		◇	◇	◇			◇		◇	◇			◇	◇		◇
	Melon Health* A platform for chronic disease prevention and management that can be tailored for an employer's specific population health needs. Melon Health's basic platform delivers virtual courses for diabetes prevention. **DELIVERY METHOD:**		◇	◇	◇	◇	◇			◇	◇	◇		◇		◇	◇	◇		
	Noom Artificial intelligence and human coach combined to encourage sustained behavior change for weight loss and diabetes prevention. Noom delivers the CDC's Diabetes Prevention Program in addition to individual support for diabetes and tailored population health programs for employers. **DELIVERY METHOD:**			◇		◇	◇	◇	◇	◇			◇		◇		◇	◇	◇	
	Novu A platform for chronic disease prevention and management that can be tailored for an employer's specific population health needs. Novu's basic platform delivers virtual courses for disease prevention. **DELIVERY METHOD:** E HP P			◇		◇	◇	◇					◇		◇	◇	◇	◇		
	Prevent (Omada Health)* A digital platform to deliver the CDC's Diabetes Prevention Program. Coach and peer support is enabled through messaging and video. Users receive a wireless scale, activity tracker and exercise equipment. **DELIVERY METHOD:** P			◇		◇	◇	◇			◇		◇		◇			◇	◇	
PRIMARY CAPABILITY: **Integrated Glucometer with Enhanced Communication Features**	**Livongo*** Remote diabetes management and coaching through a cellular-enabled "smart" glucometer, eliminating the need for smart phones or Wi-Fi. **DELIVERY METHOD:** E HP P				◇		◇	◇	◇	◇	◇	◇	◇	◇				◇	◇	◇
	Telcare Remote diabetes management through a cellular-enabled "smart" glucometer, eliminating the need for smart phones or Wi-Fi. Diabetes coaching can be incorporated through a third-party vendor. **DELIVERY METHOD:** E HP P					◇		◇	◇			◇		◇				◇		◇

E = Employer **HP = Health Plan** **P = Provider** **DC = Direct to Consumer**

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** The CDC's Diabetes Prevention Program (DPP) is a 16-week course following an evidence-based curriculum with at least an 8-month follow-up period. The programs described as platforms to deliver the DPP are recognized by the CDC and meet these minimum qualifications.

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PRIMARY CAPABILITY: **Scripted Algorithim-Driven Coaching**	**Alive-PD (Turnaround Health)*** A virtual coaching platform to deliver the CDC's Diabetes Prevention Program.** Because there is no live coaching, Alive PD is the self-proclaimed low cost alternative for DPP. **DELIVERY METHOD:** E HP			◇		◇	◇	◇					◇						◆	◆
	Alme Health Coach (Next IT) Artificial intelligence coach audibly communicates with a user in order to help users maintain and track healthy behaviors specific to their diabetes. **DELIVERY METHOD:**		◇			◆	◆	◆	◆			◇		◆					◆	◆
	Lark* A virtual health coach providing feedback to users based on their daily activities including diet, sleep and exercise. **DELIVERY METHOD:** E HP DC					◆		◆				◇	◇						◆	◆
PRIMARY CAPABILITY: **Device Data Download and Display**	**Ambio Health*** A remote patient monitoring system that enables people to take health readings from home and track them in the Ambio Care Portal. **DELIVERY METHOD:** E HP P				◇		◆	◆	◆				◇	◆					◆	◆
	Glooko* Combination mobile app and MeterSync device wirelessly transmits data from a compatible glucometer to the user's mobile app and to the provider care management platform. Glooko's MeterSync is compatible with over 30 glucometers on the market. **DELIVERY METHOD:** E HP P				◇	◆	◆	◆	◆	◆		◇						◆	◆	◆
	Welkin Health A mobile and online platform that tracks photo journals of meals and blood sugar readings enabling your existing care team or Welkin coaches to help users with diabetes self-management. **DELIVERY METHOD:** P DC					◆			◆									◆		◆
PRIMARY CAPABILITY: **Provider-Based Care Mgmt. Platform**	**Blue Star (WellDoc)*** The first mobile prescription therapy that must be prescribed by a provider. It promotes better diabetes self-management through automated context-specific responses so users can take immediate action following a blood sugar reading. **DELIVERY METHOD:** P		◇		◇	◆			◆			◇							◆	◆
	Gather Health A provider-based platform for diabetes and other chronic diseases that facilitates ongoing communication for management of a user's condition outside of the doctor's office. **DELIVERY METHOD:** P								◆			◇	◇	◆				◆		◆
	Sense Health* A provider-based platform for diabetes and other chronic diseases that facilitates ongoing communication for management of a user's condition outside of the provider's office. **DELIVERY METHOD:** HP P					◆	◆	◆										◆	◆	◆
	Tactio Provider-based care management platform enabling care teams to monitor patients with diabetes and other chronic conditions and communicate with users when necessary. **DELIVERY METHOD:** P				◇	◆	◆	◆	◆	◆	◇		◇					◆	◆	◆

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PRIMARY CAPABILITY: **Individualized Live Coaching**	**HealthSlate Diabetes Telehealth** A digital platform connecting users to health coaches. Users track meals through a photojournal, focusing on carbohydrate consumption. **DELIVERY METHOD:** E HP P				◇	◆	◆		◆		◇		◇			◆		◆		◆
	Newtopia* A digital platform connecting users to health coaches referred to as “inspirators” to support healthy lifestyles and prevent metabolic syndrome. Users and “inspirators” are matched based on personality and genetic assessments. Users receive a digital scale and activity tracker. **DELIVERY METHOD:** E HP					◆	◆	◆			◇		◇			◆	◆	◆		◆
	Real Appeal Individualized coaching and weight control plans users engage with at least one year. Users receive exercise equipment, cooking tools, activity trackers, access to a celebrity television program and more. **DELIVERY METHOD:** E HP			◇	◇	◆	◆	◆			◇		◇		◆	◆		◆		
	Retrofit Individualized coaching and weight-control plans users engage with for at least one year. Retrofit also offers online classes users can share with friends. Users receive and connect a wireless scale and activity trackers. **DELIVERY METHOD:** E HP			◇	◇	◆	◆	◆			◇				◆	◆	◆	◆		
	Selvera* Individualized and group coaching from a registered dietitian. Selvera also offers a prepared food plan as a buy-up for individual users. **DELIVERY METHOD:** E HP P DC					◆	◆	◆										◆	◆	◆
	Vida Personalized programs for chronic condition management and prevention delivering individual health coaching through messaging and weekly video consultants. **DELIVERY METHOD:** E P					◆	◆	◆	◆	◆	◇		◇	◆				◆		◆

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Scoring Methodology

The NEBGH Engagement Rating weighs each feature of a tool and solutions’ entire program and aggregates the total number of points. The points are translated into the rating icon displayed in the table to guide users in understanding how likely a tool or solutions is to foster sustained engagement with users.

	EDUCATIONAL CONTENT			PERSONAL INFORMATION TRACKING							SOCIAL				COACHING & CLINICIANS		
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ENGAGEMENT INDICATOR																		
	1 point	**2** points	**1** point	A tool or solution received **1 point** if they track 3 or more of these					**1** point	**1** point	**1** point	**2** points	**2** points	**1** point	**1** point	**3** points	**1** point	**1** point

Total possible points: 19 **Mean: 8.92 points** **Median: 9** **Mode: 12**

About NEBGH

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

About NEBGH's Solutions Center

The Solutions Center is NEBGH's unique data-gathering and discovery platform for developing initiatives that can "move the needle" when it comes to critical healthcare issues. Focused on employers as a catalyst for change, the Solutions Center's mission is to identify the most promising, innovative opportunities for improving health outcomes, and create a framework with the potential for transforming results and changing the national dialogue.

Acknowledgements

NEBGH and the Solutions Center would like to recognize and thank advisors who provided feedback and expertise in developing this assessment.

- **Joseph Kvedar, MD**
  Vice President Connected Health, Partners HealthCare

- **Robert A. Gabbay, MD, PhD**
  Chief Medical Officer, Joslin Diabetes Center
  Associate Professor Medicine, Harvard Medical School

- **Deborah Estrin**
  Professor, Computer Science, Cornell Tech and Healthcare Policy and Research, WCMC
  Founder, Health Tech Hub, Jacobs Technion-Cornell Institute
  Co-Founder, Open mHealth

NEBGH and the Solutions Center gratefully acknowledge Merck & Co. for its financial support of this project, and its ongoing interest in, and support of, NEBGH's ongoing diabetes work.

MERCK
Be well

The authors are solely responsible for the conduct of the research, analyses and content of the manuscript.

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