WELCOME TO

ADCES22

DIABETES CARE / EDUCATION / TECHNOLOGY

FRIDAY, AUGUST 12-MONDAY, AUGUST 15 / BALTIMORE, MD

ADCES

Association of
**Diabetes Care & Education
Specialists**

Disclosure

Dr. Gao has received funding from Welldoc

Background/Purpose

- Real-time CGM has been helpful in optimizing glucose management for people with diabetes
- Previously, it was felt that the greatest benefit was for those with T1D[1] or T2D[2] treated with bolus insulin
- Recent studies suggest that non-intensive insulin users also benefit from rtCGM[3]

1. Lind M, Polonsky W, Hirsch IB, et al. JAMA 2017;317:379–387. Copyright© 2017 American Medical Association. All rights reserved. Reproduced with permission of American Medical Association.
2. Beck RW, Riddlesworth, TD, Ruedy K, et al.; DIAMOND Study Group. Ann Intern Med 2017;167:365–374
3. Martens, T, Beck RW, Bailey R, et al.; MOBILE Study Group. JAMA 2021;325:2262–2272

Background/Purpose

It was recently reported in a real-world study that combining rtCGM with a digital health solution significantly impacted time in range[1]

Figure 1: TIR by CGM usage for participants with baseline mean glucose > 180 mg/dL
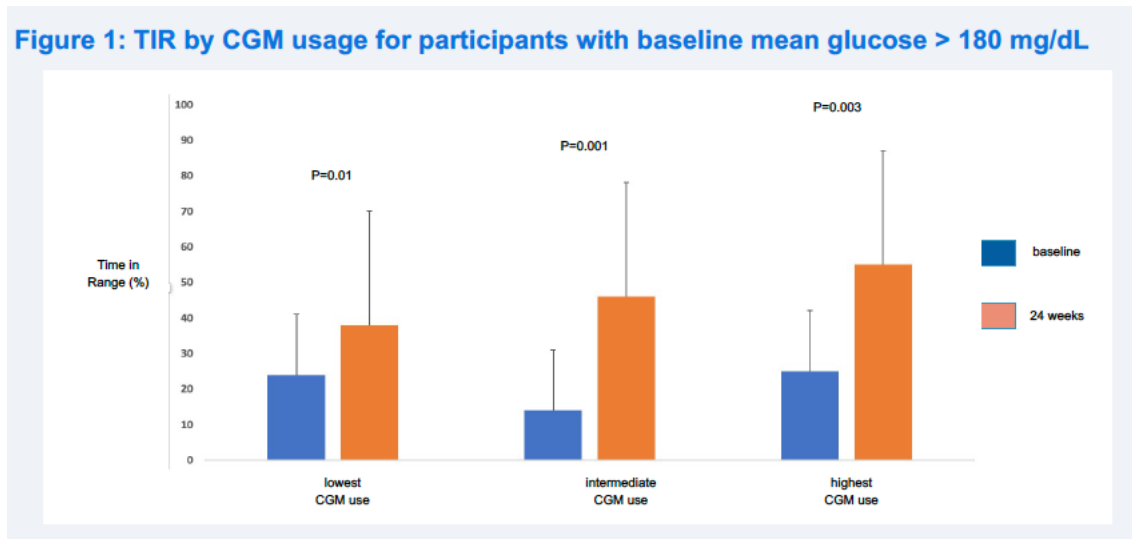
1. Kumbara A, Iyer A, Leoni K, and Shomali M. Evaluating the Impact of a Combined Real-Time CGM/Digital Health Solution on Glucose Control for People with Type 2 Diabetes. The 15th ATTD Conference Advanced Technologies & Treatments for Diabetes, Barcelona & Online, 27–30 April 2022

Research Question

- Since insulin dosing is not a factor with these study participants, the rtCGM data must be influencing diabetes-related behaviors
- In this study, we aimed to understand how engaging with the combined solution influenced the Association of Diabetes Care and Education Specialists' 7 self-care behaviors (ADCES7 behaviors).

ADCES7 SELF-CARE BEHAVIORS™

- healthy coping
- healthy eating
- being active
- taking medication
- monitoring
- reducing risk
- problem solving

Source: https://www.diabeteseducator.org/practice/practice-tools/app-resources/the-aade7-self-care-behaviors-the-framework-for-optimal-self-management; accessed 15 June 2022

Methods/Methodology

- Data were reviewed from individuals living with T2D enrolled in an employer program that provided a Dexcom G6 system and Welldoc's BlueStar platform to each participant
- The data was deidentified as per standard procedures for analysis
- Participant engagement with the digital health solution was examined.
- Cohort 1 (n=37) used rtCGM continuously for 24 weeks.
- Cohort 2 (n=55) used rtCGM intermittently.
- Counts of specific feature use of the digital health solution that support ADCES-7 self-care behaviors, such as food, medication tracking, activity, sleep, BP, and weight were tabulated.
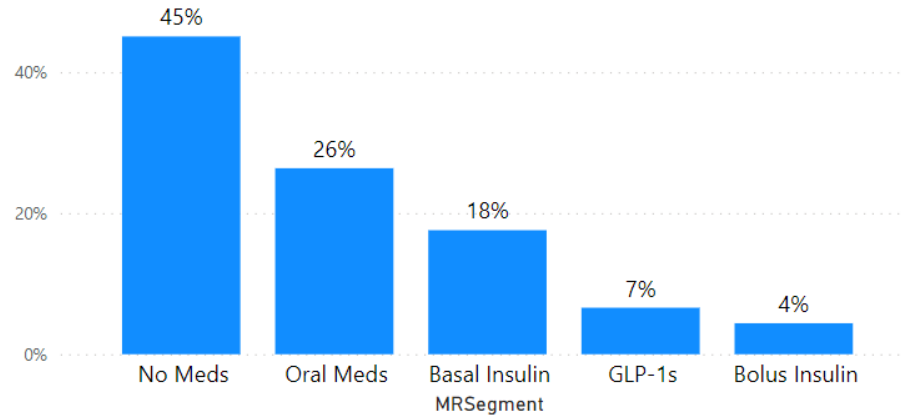
Technology
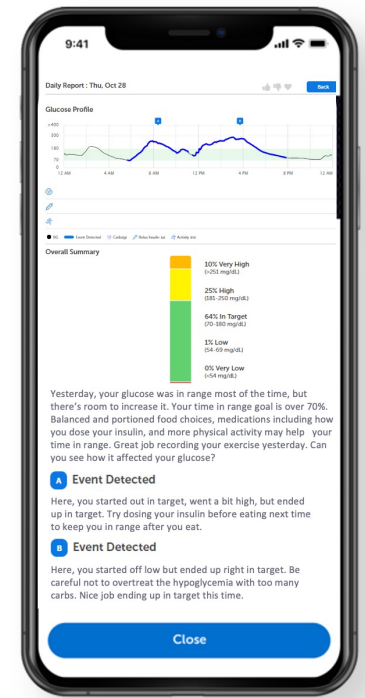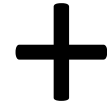
Dexcom G6 sensor and app/reader[1]

$+$

BlueStar app[2]

1. Source: www.Dexcom.com; accessed 14 June 2022
2. Courtesy of Welldoc (Columbia, MD)

Baseline Data

- 56% of rtCGM users were male
- 44% were 40-54 years old
- 36% were 55-64 years old
- The mean baseline A1C was 9.5%
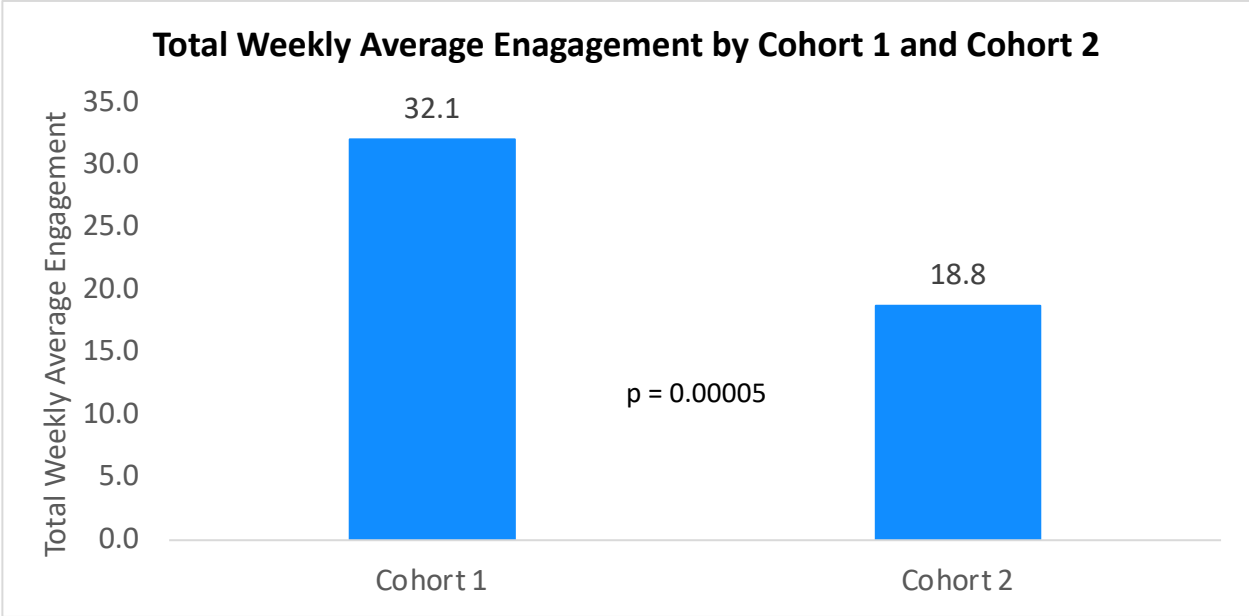- Most participants were not insulin users

Results

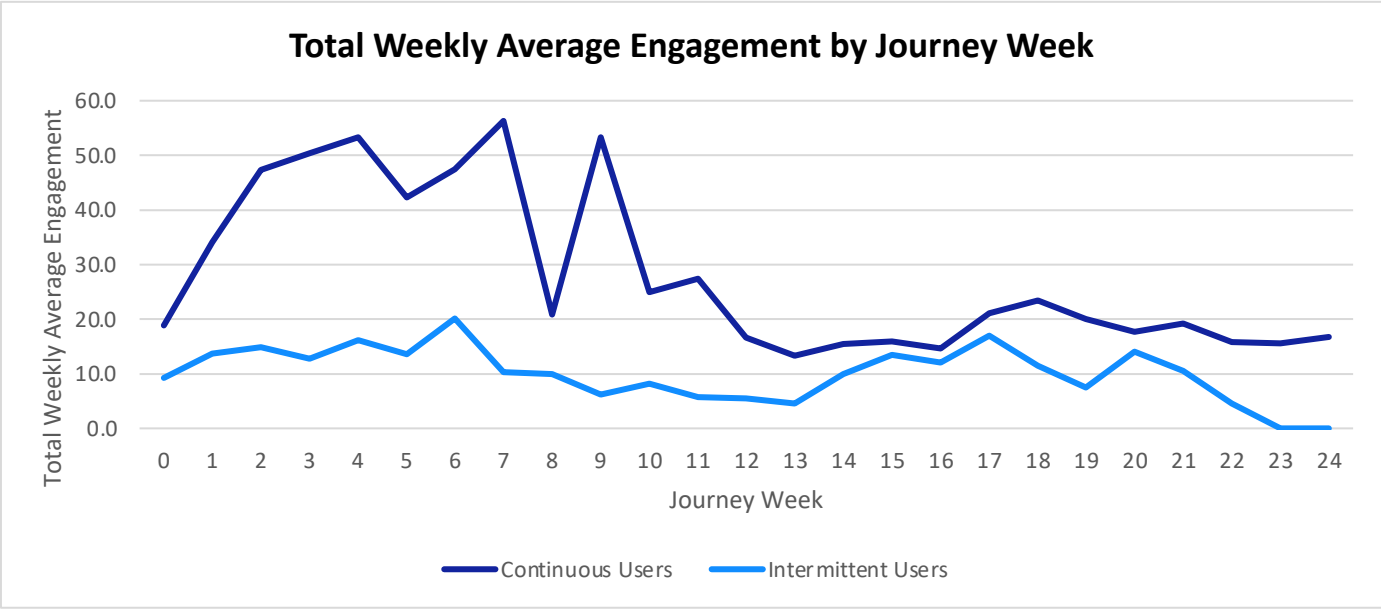## Average engagement* frequency per user group per week

	Food	Meds	Activity	Sleep	BP	Weight	Other	Total
All users	2.0	9.2	6.9	3.9	0.5	0.4	2.0	24.9
Cohort 1	2.4	13.7	7.0	6.7	0.7	0.4	1.2	32.1
Cohort 2	1.7	6.0	6.7	1.0	0.3	0.5	2.6	18.8

*Engagement is defined as an entry in the app that then triggers a response from the AI-driven software

Results

Total Weekly Average Enagagement by Cohort 1 and Cohort 2

p = 0.00005

Results

Total Weekly Average Engagement by Journey Week

Continuous Users — Intermittent Users

3 Key Takeaways

1. rtCGM use coupled with a digital therapeutic can help individuals with T2D (even those who are not prescribed insulin) improve ADCES7 behaviors

2. Engagement with the digital health solution was significantly greater for the continuous use cohort in the first 12 weeks

3. Clinicians should consider how rtCGM wear time influences self-care behaviors to coach and treat individuals with diabetes

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