

Background

Livongo Diabetes Program offers a cellularly-enabled blood glucose (BG) monitoring system that measures blood glucose, captures contextual data (e.g. relationship to food, exercise, illness) and stores this data in the cloud. Depending on the BG value, personalized recommendations are delivered back through the glucose meter.

Livongo members receive an unlimited supply of glucose test strips as well as access to a diabetes coaching team for questions, goal setting, and support for extreme glucose excursions.



Latest Technology

- Cellular-enabled blood glucose meter
- FDA approved October 2014
- Unlimited test strips mailed to member's home



Coaching Anytime, Anywhere

- Personalized data analytics
- CDE coach access 24 hours/day
- Outreach from coaches for BG > 400 mg/dL and < 50 mg/dL or levels set by member

We have previously reported that members who establish contact with Livongo coaches experience an HbA1c reduction of 0.8% on average after 90 days with the program¹.

Objective

To determine whether diabetes education offered to a targeted population via text messages will increase requests for telephonic CDE coaching and improve BG control.

Methods

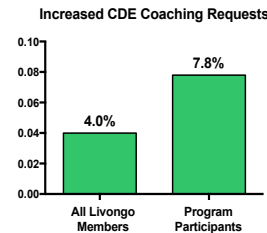
We examined a 4-week text message program offered to Livongo members with a calculated or self-reported HbA1c >7% to provide diabetes education about medication adherence. Text messages were delivered during the weekdays and covered topics:

- (1) Why are medications important?
- (2) Tips for remembering to take medications
- (3) Medication Myths and
- (4) Overcoming barriers to taking medications

For participating members, we analyzed BG checking frequency, mean BG and frequency of hyper- and hypoglycemia during the 30 days prior to the program (Pre) and 30 days after the program (Post).



Demographics	
N	496
Female	51%
Type 1	8%
Insulin Use	44%
Oral Meds	72%



Results

Out of the 2,017 members offered the program, 514 (25%) opted in and 18 of those members (1%) opted out during the program. Text messaging content triggered 38 personalized CDE coaching session requests, a rate of 7.8% of participating member population which is 85% more than the rate for members who did not participate in the text message program, 4.0%.

Participants were asked if the program was helpful for managing their diabetes - 99% of members reported "yes".

	Mean BG checks/day	Mean BG (mg/dL)	BG Std Dev	% BG < 80mg/dL	% BG > 180mg/dL
Pre-program	1.1	158	67	5.4%	25.3%
Post-program	1.2	153	54	5.2%	22.1%

Conclusions

Engaging people with diabetes education in a targeted and personalized manner helps connect members with CDE coaches and improve blood glucose control.

References

1. ADA Scientific Meetings, New Orleans, June 2016.
2. Pare G, Jaana M, Sicotte C. Systematic Review of Home Telemonitoring for Chronic Diseases: The Evidence Base. Journal of the American Medical Informatics Association. 2007;14(3):269-277. doi:10.1197/jamia.M2270.
3. Asche C, LaFleur J, Conner C. A Review of Diabetes Treatment Adherence and the Association with Clinical and Economic Outcomes. CLITHE. 2011;33(1):74-109. doi:10.1016/j.clinthera.2011.01.019.
4. Nathan DM, Kuenen J, Borg R, et al. Translating the A1C Assay Into Estimated Average Glucose Values. Diabetes Care. 2008;31(8):1473-1478. doi:10.2337/dc08-0545.