

T2D Users of a Digital Diabetes Management System Experience a Shift from Greater than 180 mg/dL to Normal Glucose Levels with Sustainable Results

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Introduction

One of the goals of a digital diabetes management system is to improve patient's self-management and control of their condition. Blood glucose level reduction and sustainment of lower levels of blood glucose is one of the greatest challenges in managing diabetes. Digital engagement can play a pivotal role in the care of patients with diabetes, potentially improving patient's glycemic control.¹

Method

A retrospective data evaluation study was performed on the Dario[™] cloud database. A population of all active Type 2 Diabetic (T2D) users that took measurements with the Dario[™] BGMS with average of 20 measurements per month during 2017 was evaluated. The study assessed the ratio of all high blood glucose readings (180-400 mg/dL) and the ratio of all normal blood glucose readings (80-120 mg/dL) in their first month of use to their last month of use during 2017 as recorded in the database.

Reduction and Sustainment of High Glucose Readings

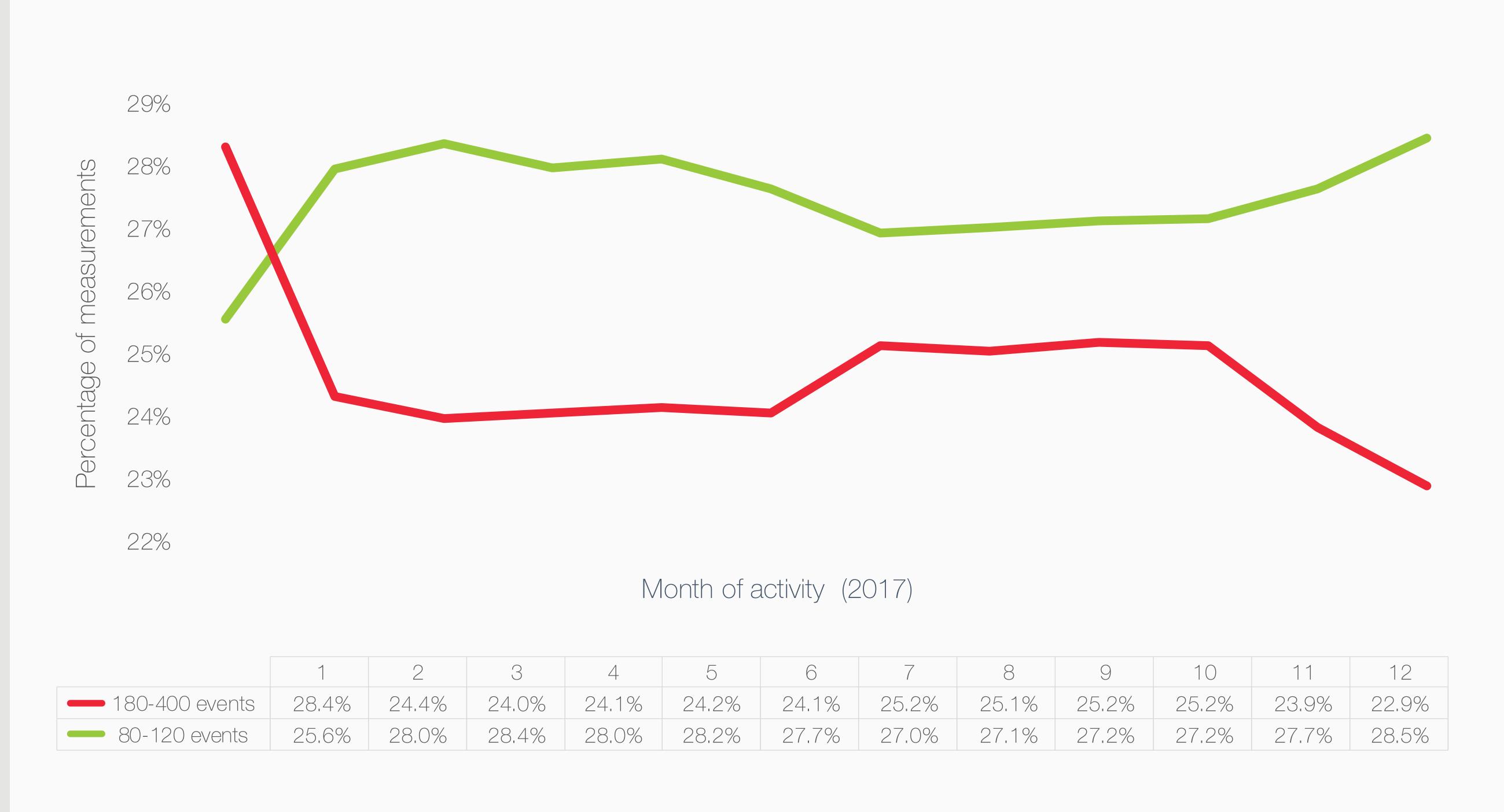


Figure 1: The graph represents the percentage of high blood glucose events (180-400 mg/dL) and normal blood glucose events (80-120 mg/dL) over a year in Dario users.

Results

For 17,156 T2D users activated during 2017:

- Average ratio of high blood glucose events (180-400 mg/dL) was reduced by 19.3% (from 28.4% to 22.9% for the entire range of measurements).
- The ratio of normal blood glucose range readings (80-120 mg/dL) increased by 11.3% (from 25.6% to 28.5% for the entire range of measurements).
- The most significant shift occurred after one month of usage (a 14% decrease) and remained stabile over the following months throughout the full year.

Conclusions

- The digital diabetes management platform solution may promote behavioral modification and create sustainable improvements in glycemic control that is not necessarily driven from increasing blood glucose measurements. The study demonstrates an improvement in glycemic outcomes and sustainment for a significant time period.
- The results of the present study substantiate several elements in digital diabetes management. Previous studies had shown that users of the mobile platform had fewer hyperglycemic events compared to the control group.² Additionally, the display of data from a mobile application can contribute to improving glycemic control.^{3,4}

References

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