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A Payer Digital Health Study Shows Scalable Approach to Cost Savings and Outcomes

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Dear Editor,

A large health payer "Digital Health Study" showing a scalable approach to cost savings and outcomes' recently concluded using a "System" comprising of OneTouch Reveal Plus application (Powered by BlueStar), synchronized blood glucose (BG) readings from the OneTouch Verio Flex meter, and delivery of real-time feedback. Users are empowered to engage in managing diabetes while enabling providers with virtual monitoring to make informed treatment decisions, which are critically important given constraints imposed by COVID-19. The System intelligently aggregates user data to provide automated real-time coaching, allows providers to visualize glycemic trends and patterns, enhances communication pathways, and influences behavior.

The prospective study had a primary objective to evaluate pre-post system use, glycated hemoglobin (HbA1C), trends in average blood glucose, incidence of hypoglycemia and hyperglycemia, medication adherence, health care utilization, comorbidities, medical utilization, and cost.

Two hundred and ninety-one health plan members with a history of type 2 diabetes, HbA1C of at least 7.5%, and on diabetes-medications (oral, non-insulin injectables, or insulin) participated. Two hundred and twenty-eight participants had at least one A1C available. Of those with a paired 6-months analysis of A1C ($n = 73$) available, a positive trend toward a lower A1C was observed. A reduction in average A1C of 1.83% was observed in users with baseline A1C ≥8. Similarly, at month 6, a statistically significant decrease in the average of maximum BG values was noted ($n = 8779$ BG) from 311 mg/ dL at month 1 to 246 mg/dL at month 6 ($P = .005$). Improvement in A1C and average BG was not driven by changes in medication; rather, by factors attributed to the system (noninsulin users in the system and changes in medications were not statistically significant). These results align with previous studies with the system whereby significant reductions in A1C were obtained after 3 months, and subjects were able to maintain glycemic control for the duration of a year.[1]

The average system engagement was 30 times/week/person, totaling 31,663 suggesting an effective mechanism to improve self-management. Twenty percent of activated members continuously engaged for 6 months with no additional support other than what was provided in the system. The ratio of daily active users to monthly active users was 0.5. Members on differing medication regimens engaged with BG, food, medications, activity, sleep, and educational tools at a similar rate. Diabetes-related and all-cause emergency room visits decreased from baseline to follow-up by 30% ($P = .0587$) and costs decreased by 55% ($P = .0231$).

This study suggests that real-time availability of data-driven insights assists users and their own providers to improve glycemic control and shift to data-driven care. Leveraging "intelligent monitoring" engages patients beyond just glucose testing[2] to include lifestyle and psychosocial monitoring, provides robust data for treatment optimization, and higher quality engagements which may be the "active ingredient" to influencing clinical outcomes and reducing cost.

Digital therapeutics and telehealth can reduce health care costs while lessening health care burdens. A call to action is required to facilitate uptake on a larger scale to support healthy behaviors and improve diabetes care. If not done, a great opportunity to improve the health of people with diabetes will be missed.

Declaration of Conflicting Interests

The author(s) declared the following potential conflicts of interest with respect to the research, authorship, and/or publication of this

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