

Improving Diabetes Self-Management Habits with Remote Patient Monitoring in the ROCKET T1D Program



Guido Alarcon, MD; Don Buckingham MBOE, CPHQ; Rona Sonabend, MD; David Schwartz, PhD, ABPP; Sarah Lyons, MD; Daniel J. DeSalvo, MD

Texas Children's Hospital / Baylor College of Medicine; Houston, TX, USA

BACKGROUND

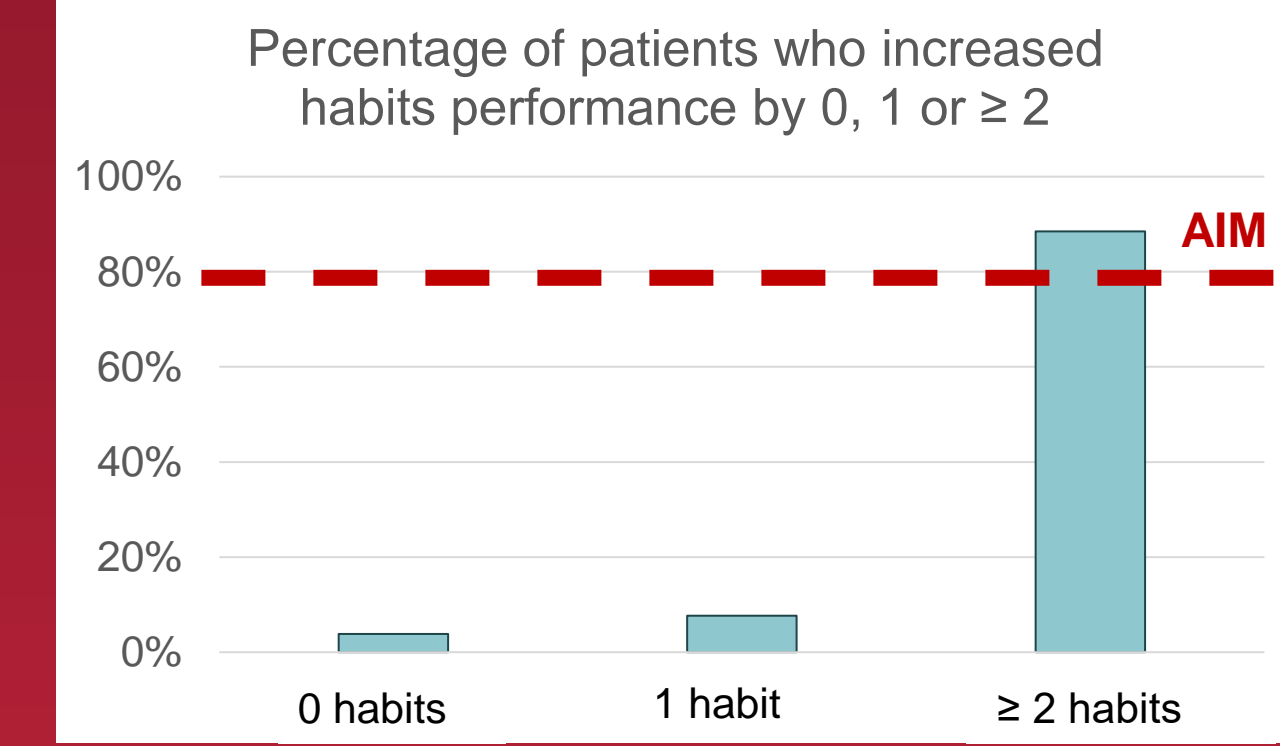
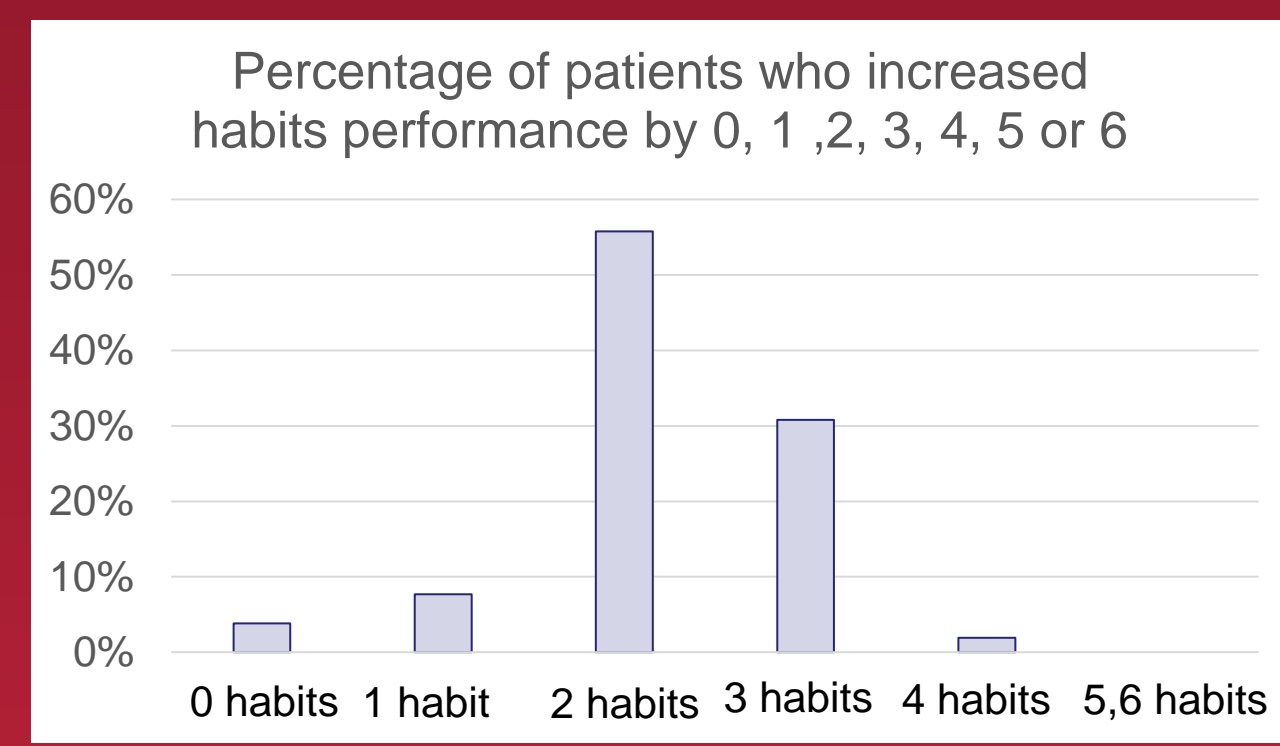
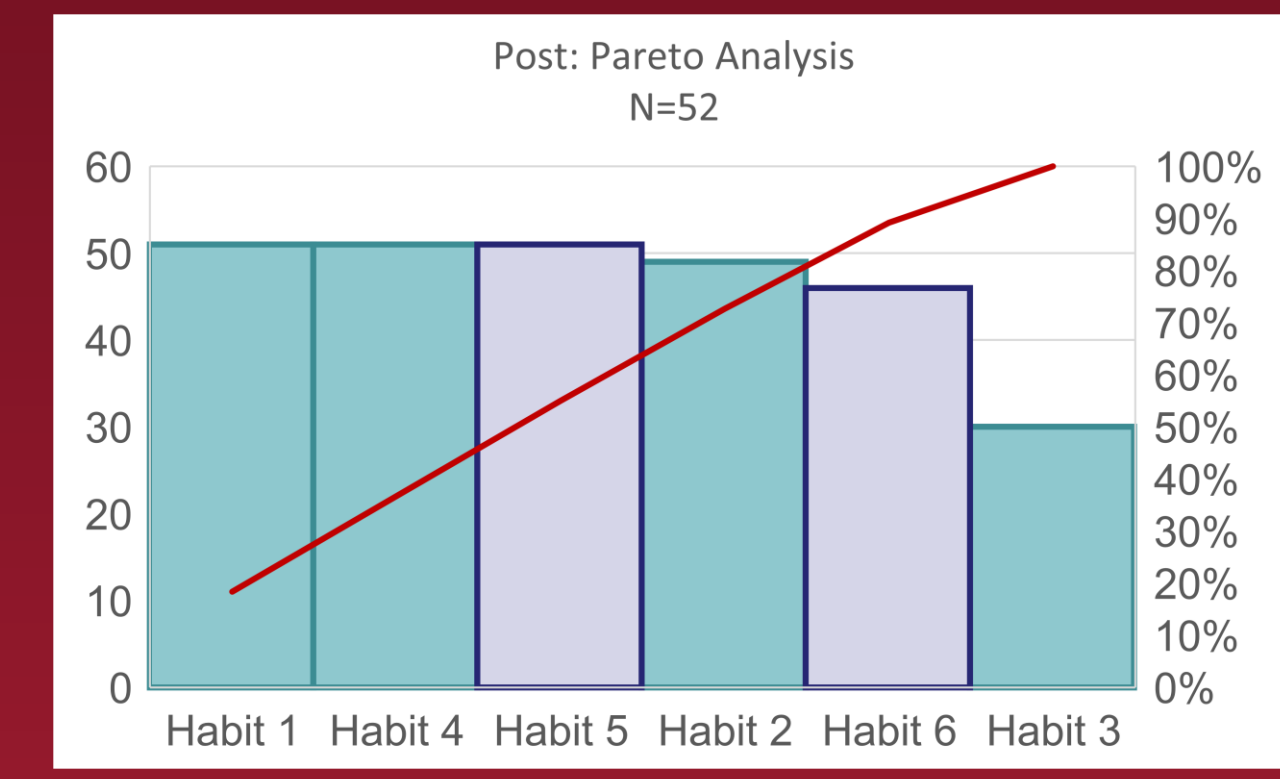
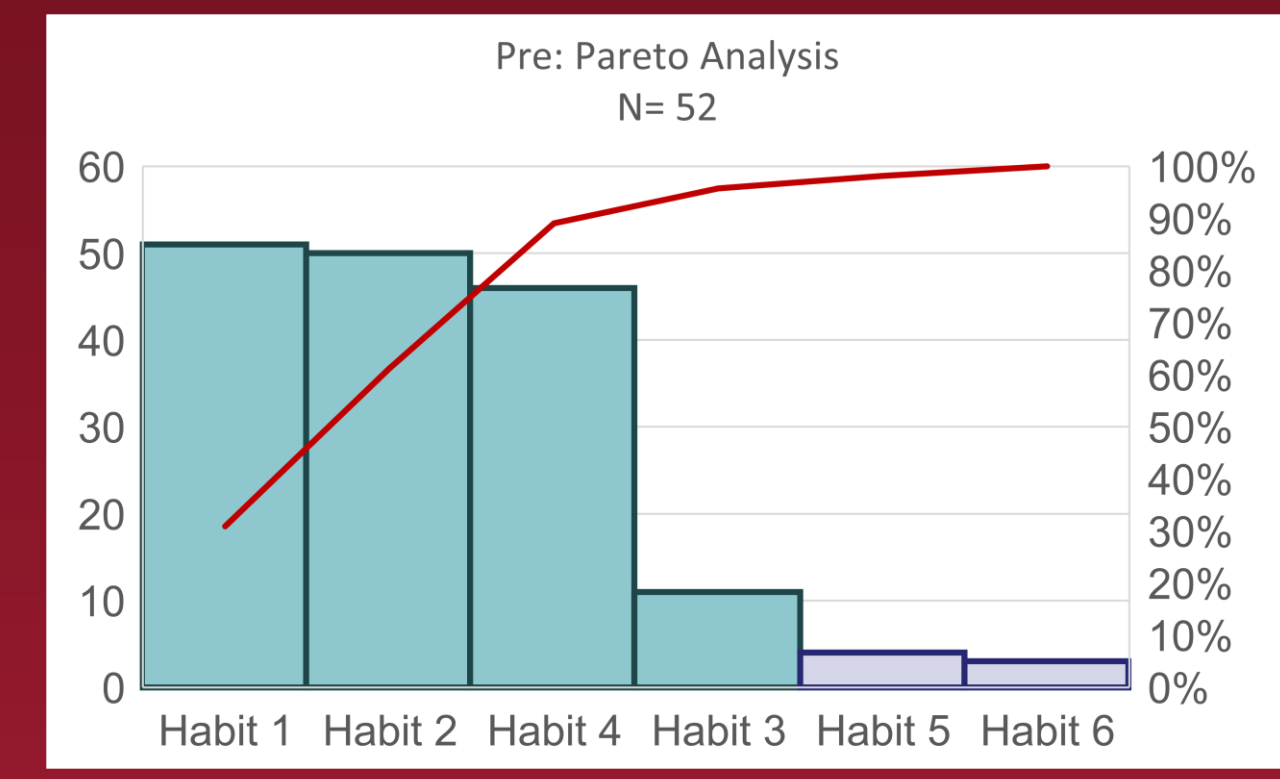
- Performing the **6 diabetes self-management habits** to optimize glucose monitoring, insulin delivery, and use of diabetes data has been associated with lower HbA1c and increased time in range (Ref: Lee et al. *JAMA Netw Open.* 2021).
- Remote health care became essential with the COVID-19 pandemic and T1D technologies can be leveraged to provide an effective remote patient monitoring platform.
- We developed the **ROCKET T1D** (**R**emote **O**utreach & **C**are for **K**ids' **E**mpowerment and **T**echnology use in **T1D**) remote patient monitoring program to optimize diabetes management, which focuses on tailored support provided by Certified Diabetes Care and Education Specialists (CDCESs)
- ROCKET T1D includes two phases:
 - Launch Phase:** ~Weekly calls focusing on optimizing 6 habits and supporting diabetes management
 - Orbit phase:** Monthly remote monitoring of cloud-connected diabetes device data with therapy adjustments if indicated

SMART AIM

Increase use of the 6 diabetes self-management habits by at least **2 habits** from enrollment to completion of the 'Launch phase' in $\geq 80\%$ of youth with T1D enrolled in the **ROCKET T1D program**.

METHODS

- Population:** Youth with T1D referred by provider and all new onset patients with T1D
- Intervention:**
 - ~Weekly calls with CDCES for supporting diabetes management including therapy adjustments
 - Use of the **ROCKET T1D Flight Manual** which is an educational binder tailored to the 6 habits and other T1D essential information
- Outcome:** Performance of the 6 diabetes self-management habits are assessed at enrollment and again at completion of the Launch Phase using the EMR-based ROCKET T1D flowsheet



Conclusion:

Providing remote, tailored support to families of youth with T1D is effective in improving diabetes self-management habits

Six diabetes self-management habits		
1	Effective glucose monitoring	Checks BG>3 times daily or uses CGM consistently
2	Effective insulin delivery	Gives at least 3 boluses per day
3		Uses insulin pump
4		Gives bolus before meals
5	Effective use of data	Download device data
6		Adjust insulin doses

Ref: Lee et al. *JAMA Netw Open.* 2021

RESULTS

- 88% of patients increased diabetes self management habits by at least 2 habits from enrollment to completion of ROCKET T1D Launch Phase.
- The most pronounced improvement was in effective use of diabetes data (Habits 5 and 6). There was a $>50\%$ improvement in insulin pump use (Habit 3).

Pre and Post Habit Count Comparison N= 52
35% Overall Improvement

