

Increasing Insulin Pump Use by Adapting Pump Enrollment Process

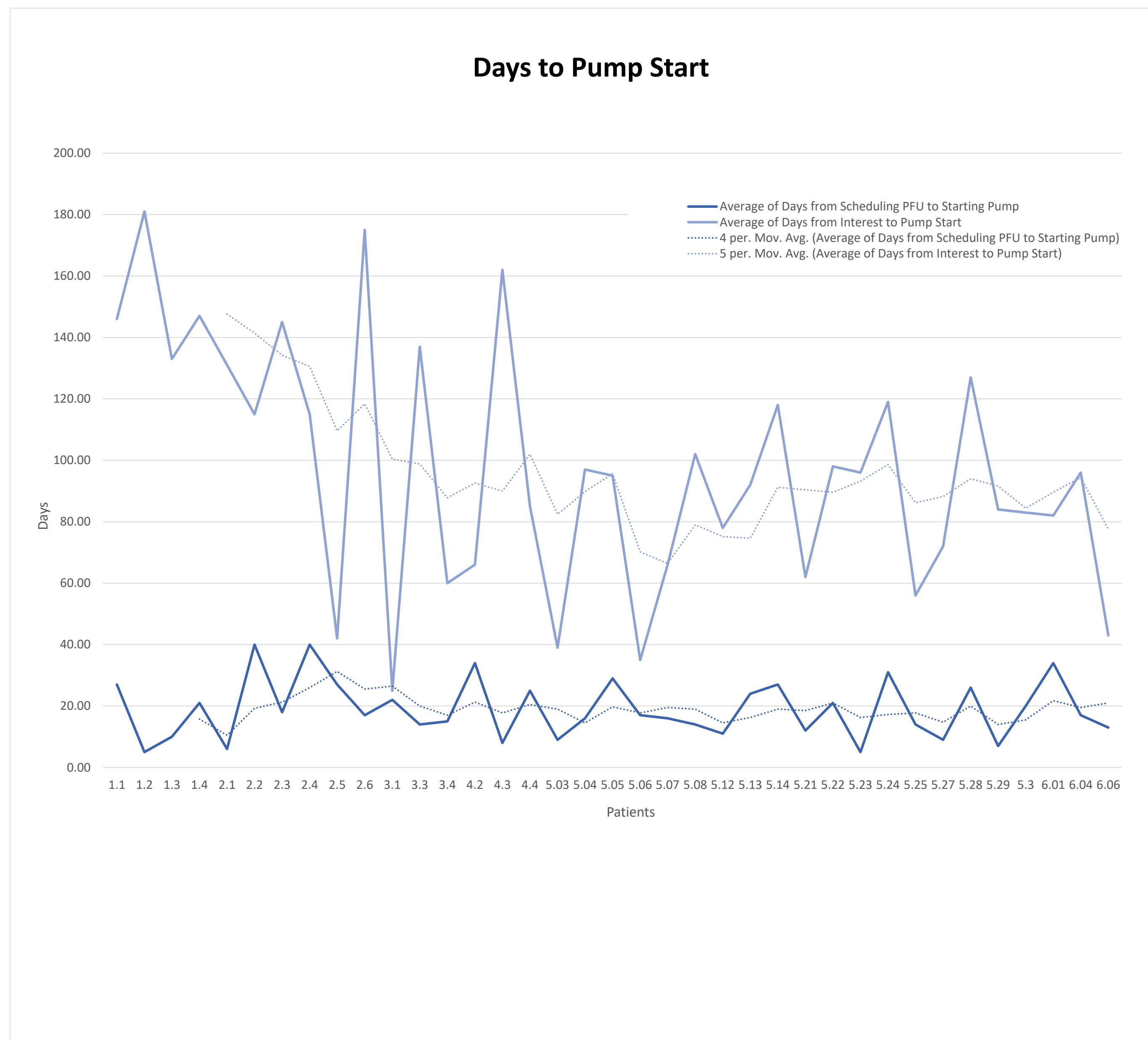
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BACKGROUND AND AIM

There is evidence that insulin pump use in youth contributes to moderate improvement in A1c, decreased hypoglycemia, decreased DKA risk, as well as decreased risk of complications when compared with MDI (ElSayed NA, Aleppo G, Aroda VR, et al., 2023). Additionally, evidence suggests the use of automated insulin delivery systems (AIDs) reduces A1C, improves TIR, lowers risk of exercise-related hypoglycemia, and reduces diabetes burden, therefore contributing to psychosocial benefits. Recommendation of insulin pump therapy being the main mode of insulin delivery in pediatric patients with Type 1 Diabetes under the age of 7.

At baseline insulin pump use at Cook Children's is 35% at best.

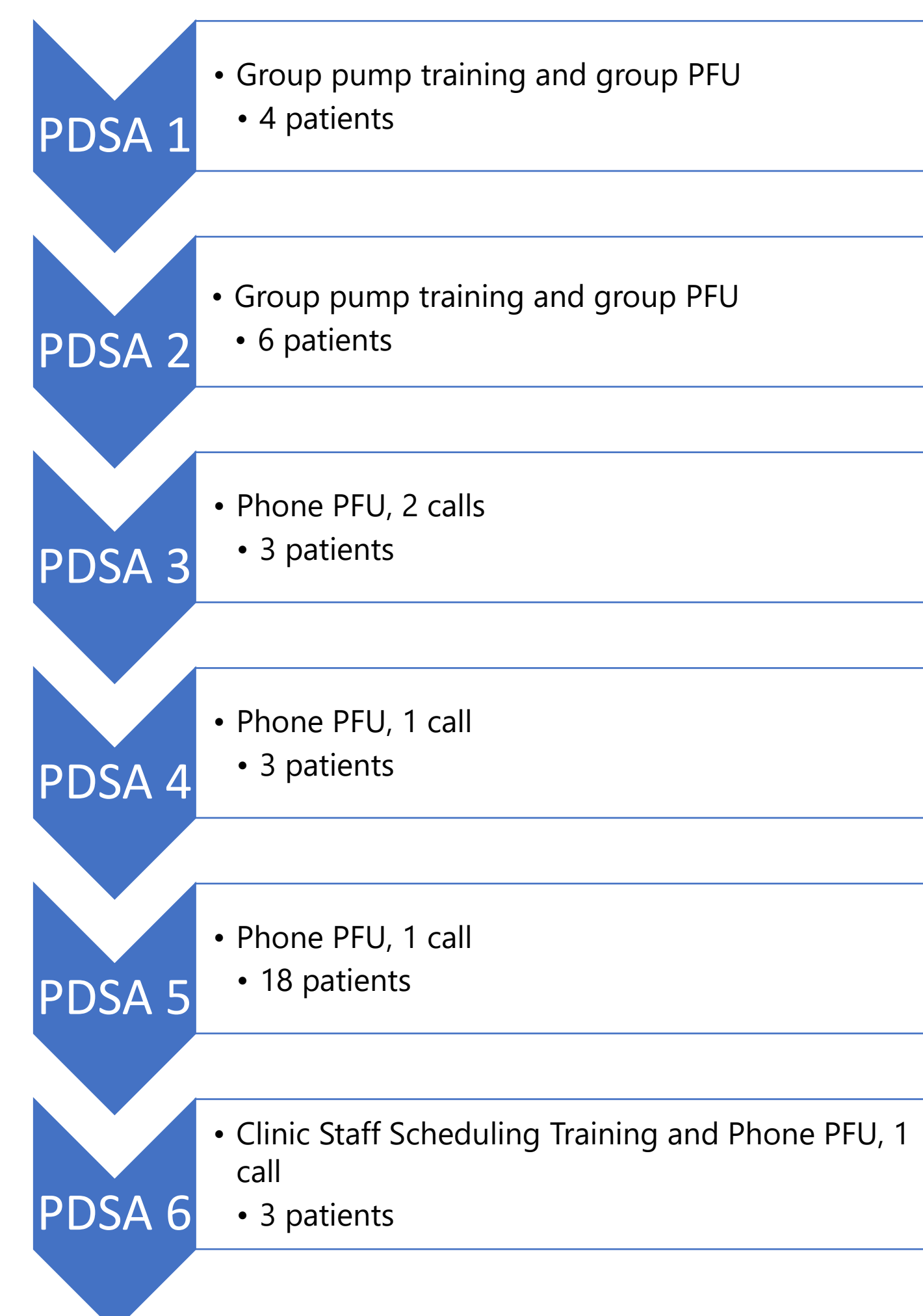
The objective of this project is to decrease time from pump interest to pump start to less than 100 days in 12 months. The secondary objective is to increase pump use by 15% from baseline at Cook Children's Endocrinology and Diabetes Clinic.



RESULTS

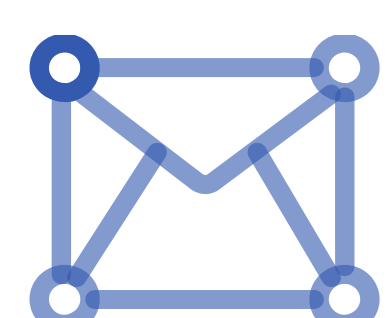
Before implementing interventions, families waited 90-150 days to attend class (pump interest) and another 30-180 days for training (pump start). After implementation, the time between pump interest to pump start improved from an average of 122 days to 97 days. The aim of 15% pump use among patient population was not met. Barriers identified include provider bias, insurance or pharmacy issues, trainer and appointment availability, along with patient preference.

METHODS



CONCLUSION

Implementing virtual pump class and phone follow up allowed patients to start insulin pump therapy in a shorter period of time. Use of fishbone diagram and PDSA were effective in improving wait time. Future steps include development of a patient led pump education using online modules, having providers initiate conversations regarding pump use, and identifying provider barriers to earlier pump therapy.



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References:

ElSayed NA, Aleppo G, Aroda VR, et al., American Diabetes Association. 7. Diabetes technology: *Standards of Care in Diabetes—2023*. Diabetes Care 2023;46(Suppl. 1):S111–S127