

Background

- Regular ambulatory diabetes visits offer opportunities for individualized education and development of tailored treatment plans to support the management of type 1 diabetes (T1D)
- Missed ambulatory appointments are associated with higher HbA1c levels and increase odds of hospitalization

SMART Aim

- Reduce the mean loss-to-follow-up (LTFU) rate for our pediatric patients with T1D from a baseline of approximately 35% to 20% by 18 months

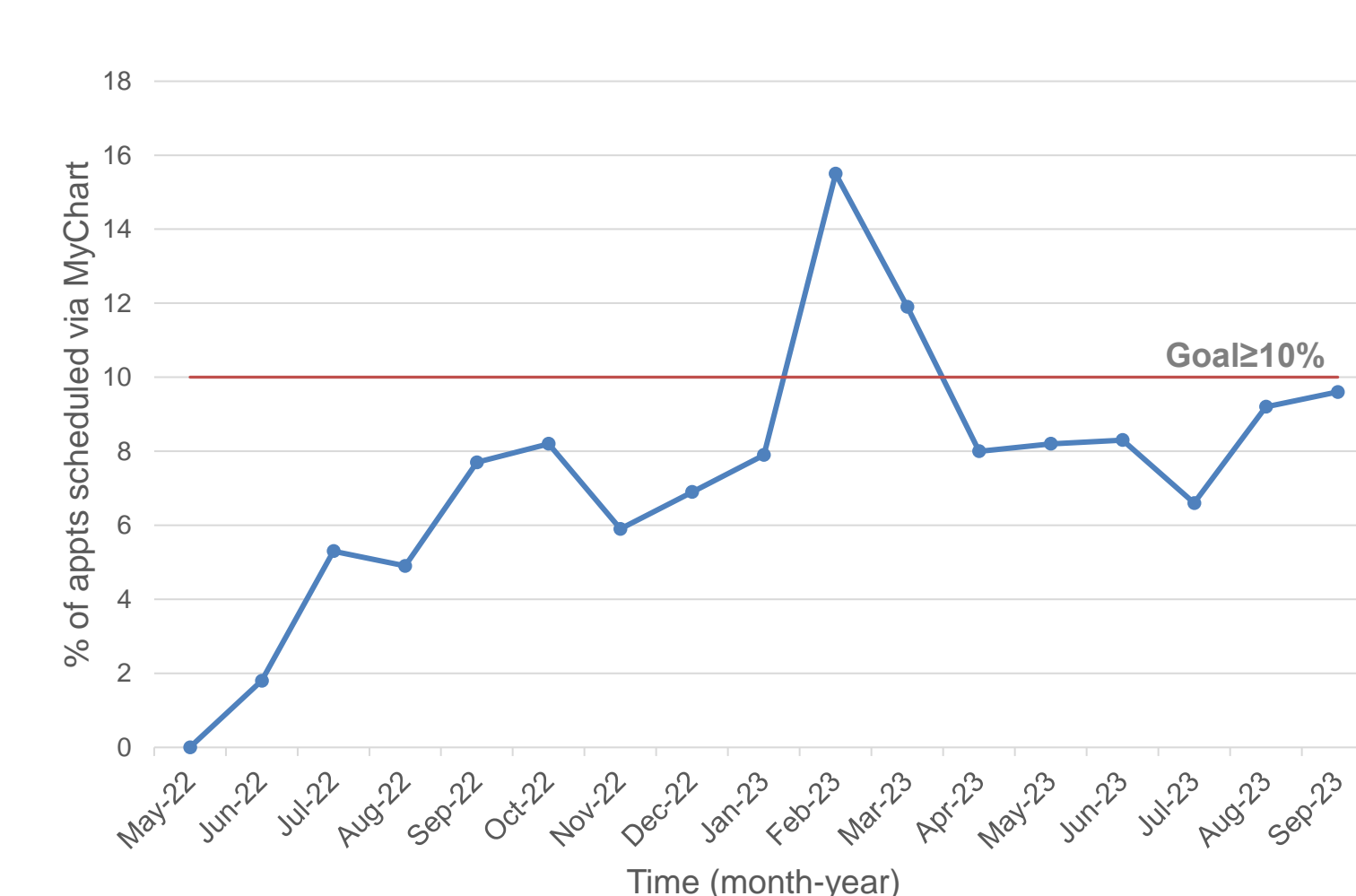
Methods

- Patients <18 years of age with an ICD-10 code for T1D with at least 1 diabetes provider visit in the preceding 18 months were included in the study (**Table 1**)
- LTFU was defined as having their last diabetes clinic visit >6 months ago
- A multidisciplinary team developed and tested quality improvement (QI) interventions to improve diabetes clinic visit attendance:
 - Training medical assistants to schedule return-to-clinic appointment by the end of a patient's diabetes clinic visit;
 - Offering visit scheduling to patients via Epic MyChart and FastPass, the latter enabled patients with existing appointments to get on a waitlist for an earlier appointment;
 - Adding new diabetes providers to our team to improve access and availability of clinic visit slots
- Several Plan-Do-Study-Act cycles were conducted for each intervention
- Rates of LTFU were analyzed monthly via statistical process control charts (u-charts) to identify special cause variation

Table 1: Patient demographics based on patient's first clinic visit during study period

	All, n (%)	LTFU, n (%)
N	2427	501 (20.6)
Age, Years		
0-5	221 (9.1)	27 (5.4)
6-12	1060 (43.7)	215 (42.9)
13-17	1146 (47.2)	259 (51.7)
Sex		
Female	1167 (48.1)	248 (49.5)
Male	1259 (51.9)	253 (50.5)
Non-Binary	1 (0.0)	0 (0.0)
Race/Ethnicity		
2 or more races	104 (4.3)	14 (2.8)
Asian	99 (4.1)	21 (4.2)
Black or African American	177 (7.3)	39 (7.8)
Alaska Native/American Indian/Pacific Islander	13 (0.5)	3 (0.6)
Hispanic	329 (13.6)	55 (11.0)
Non-Hispanic White	1491 (61.4)	318 (63.5)
Other/Unknown/Refused	214 (8.8)	51 (10.2)
Language of Care		
English	2243 (92.4)	464 (92.6)
Spanish	97 (4.0)	15 (3.0)
Other	87 (3.6)	22 (4.4)
HbA1c		
< 7%	287 (14.2)	29 (9.3)
7-9%	846 (41.8)	127 (40.6)
≥ 9%	890 (44.0)	157 (50.2)
Payor		
Private Insurance	1413 (58.2)	242 (48.3)
Public Insurance	935 (38.5)	204 (40.7)
Self Pay	79 (3.3)	55 (11.0)

Figure 2. Percentage of Appointments Scheduled via MyChart Over Time



Results

Figure 1. Mean LTFU Rate Over Time

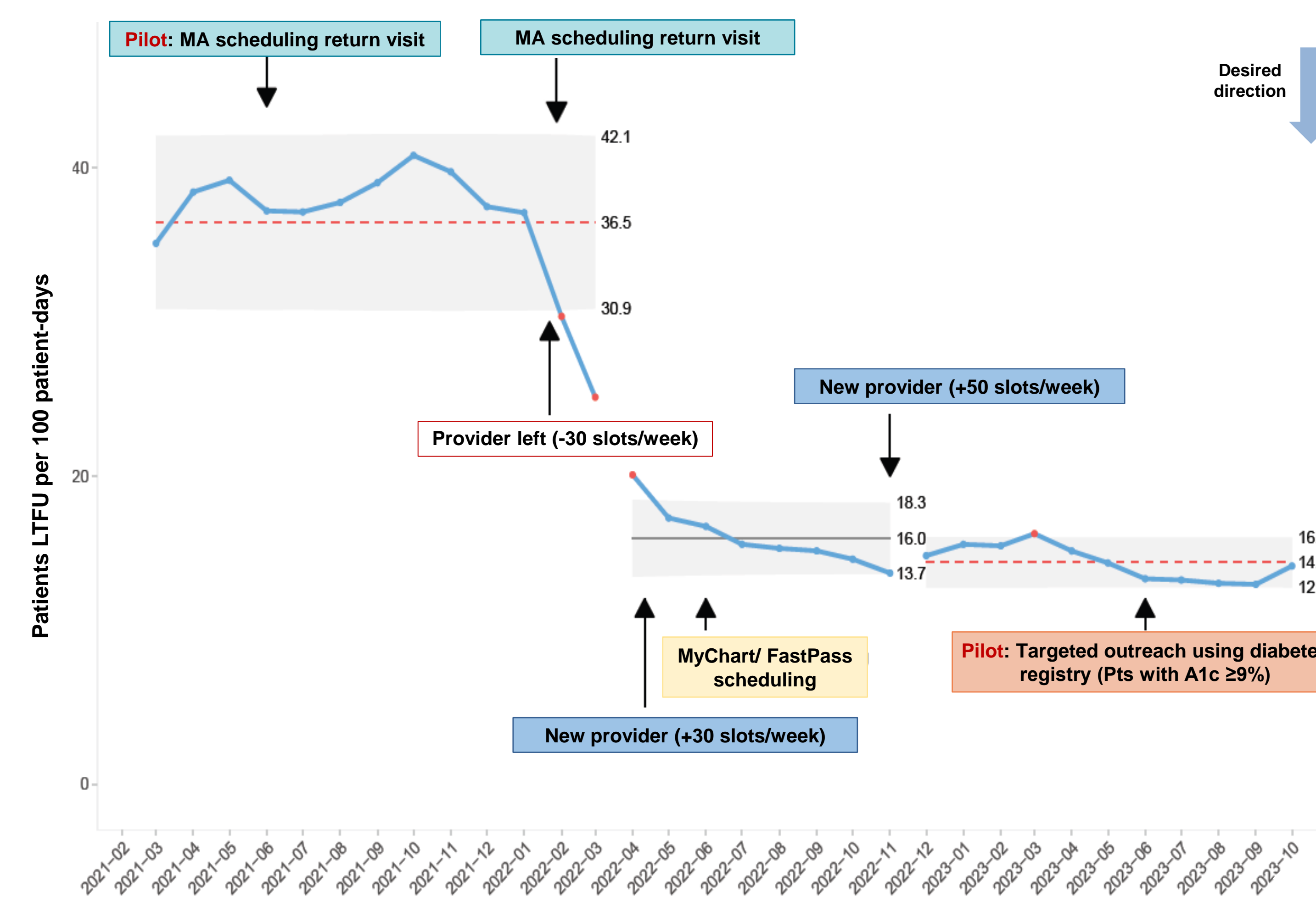
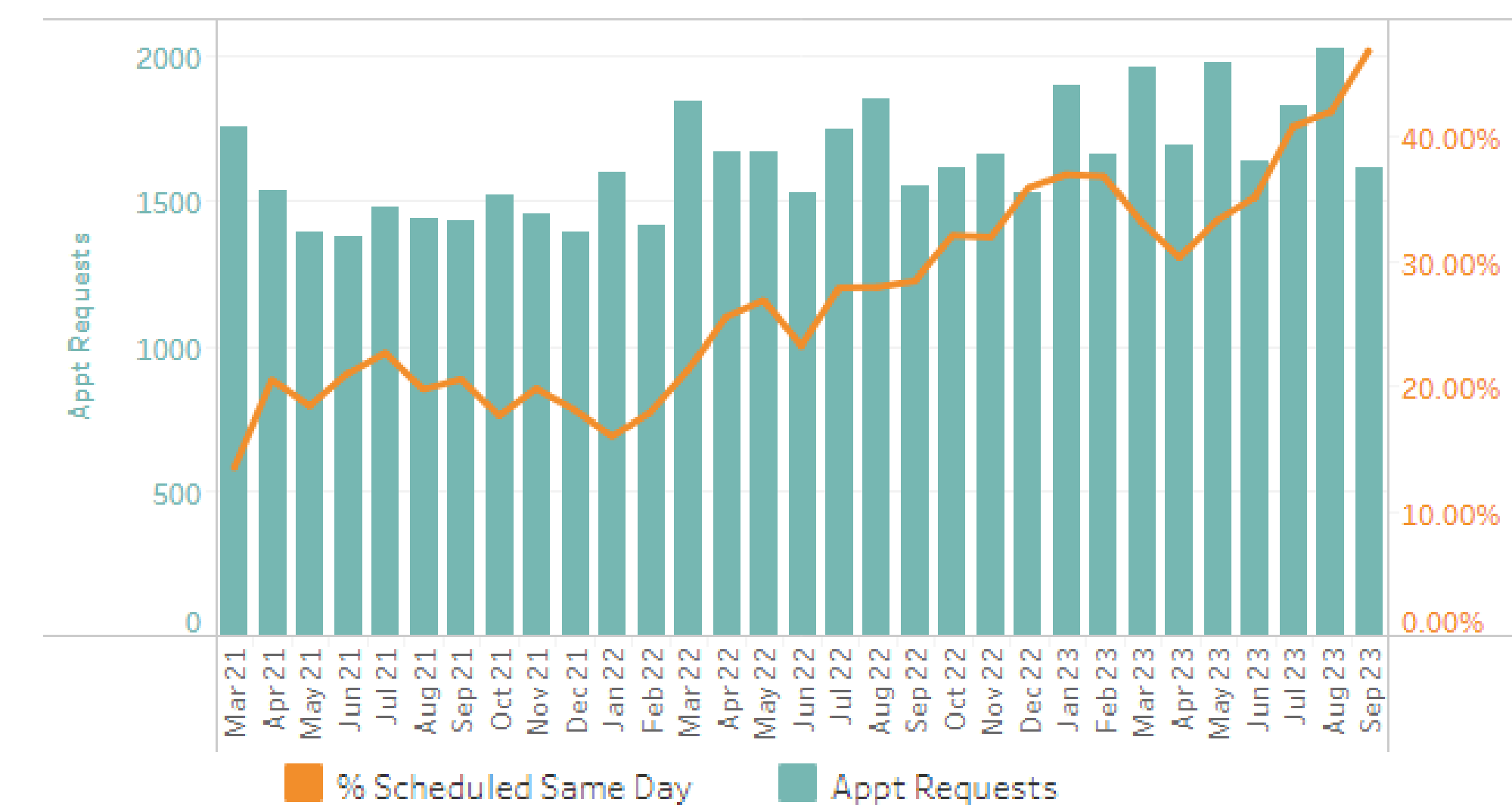


Figure 3. Number and Percentage of Return Appointments Scheduled on Day of Visit



- The mean LTFU rate decreased significantly from a baseline of 35% to 14% (**Figure 1**)
 - Baseline LTFU rates were similar across all ages and sexes; improvements were noted for all groups
 - LTFU rates were higher for patients with language other than English (47%) at baseline but improved to ≤14%
 - Baseline LTFU rates were higher for patients with public insurance (44%) but improved significantly to 17%
 - At baseline, LTFU rates were higher for most race/ethnicity groups compared to non-Hispanic White patients but improved to ≤19% for all groups
 - Patients with HbA1c ≥9% had slightly higher baseline LTFU rates compared to those with HbA1c <9%; LTFU rates improved to ≤14% regardless of HbA1c level
- Percentage of appointments scheduled via MyChart increased from a baseline of zero to consistently >8% over the last 9 months (**Figure 2**)
- Percentage of appointments scheduled same-day increased from a baseline of about 17% to consistently >30% over the last 1 year (**Figure 3**)

Conclusion & Future Direction

- Improving scheduling processes and visit access using QI methodology resulted in reduced LTFU rates
- Future work will include using the Seattle Children's Hospital comprehensive Healthy Planet diabetes registry to identify subset of patients who may be at higher risk of LTFU and prioritizing outbound scheduling calls to them