Increasing Equitable Access in Diabetes Tech among Patients with Type 1 Diabetes Across a Health System

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Background

- Diabetes technologies improve glycemic control, lower hypoglycemia risk, and enhance quality of life
- Access inequities arise from insurance disparities, high costs, and restrictive eligibility, and provider bias, leading to lower adoption in minorities and low-income groups
- Addressing these issues is essential to reduce health inequalities and improve well-being for underserved populations
- We compared technology uptake and quality improvement responses between two clinic models within our healthcare system—sites which integrate all payors versus sites which have different practices for private and Medicaid/Medicare insurance

Fishbone Diagram

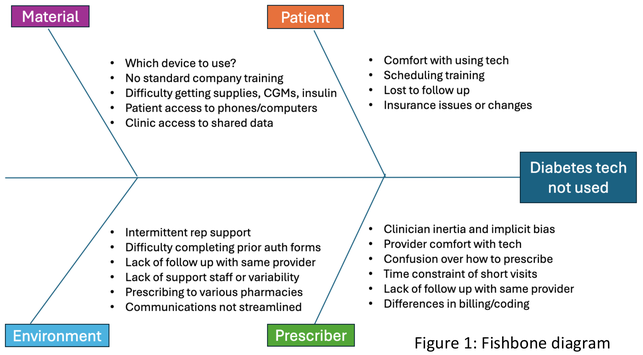


Figure 1: Fishbone diagram

Process Map

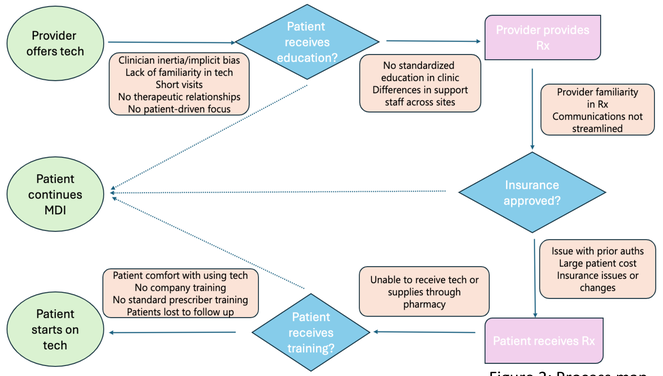
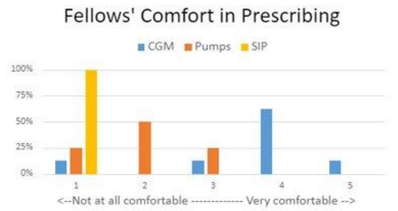


Figure 2: Process map

Baseline Data

Baseline fellows survey

Collected July 2024



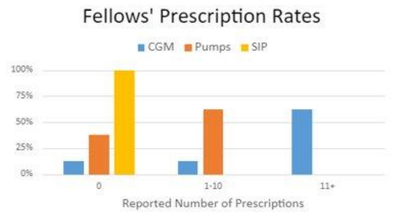
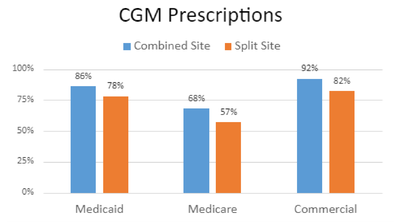


Figure 3: Baseline fellows survey

- Low comfort with pumps with variable prescribing rates
- Not at all comfortable with SIP, 0 were prescribed
- Overall comfortable with prescribing CGM with higher self-reported prescription rate

Baseline EHR data comparing combined vs split sites

Collected July 2023-July 2024



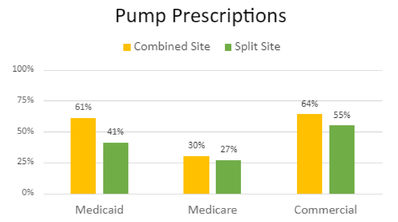


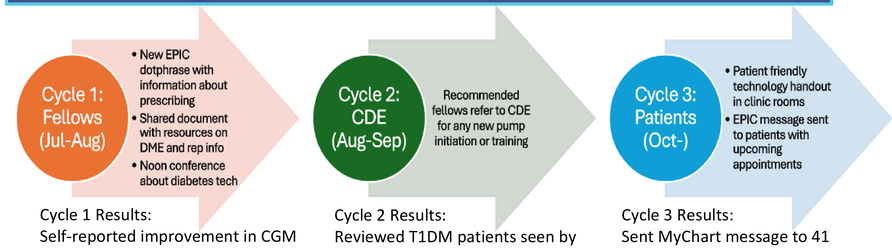
Figure 4: Baseline EHR data

- More tech use with commercial insurance
- More tech use at combined site for all insurance types
- Greatest disparity between commercial/Medicaid payors is pump use at split site
- Very low prescription of SIP overall: 1-4%
- Limitations: dependent on accurate diagnoses codes to capture insulin pump status and CGM analysis

Table 1: Diabetes Technology Usage by Clinic Site and Insurance Type

	Combined (n=378)	Split (n=953)
CGM		
Medicaid	86% (114/132)	78% (81/104)
Medicare	68% (36/53)	57% (92/161)
Commercial	92% (178/193)	82% (564/688)
Pumps		
Medicaid	61% (80/132)	41% (43/104)
Medicare	30% (16/53)	27% (44/161)
Commercial	64% (123/193)	55% (378/688)
SIP		
Medicaid	2% (2/132)	4% (3/104)
Medicare	2% (1/53)	1% (1/161)
Commercial	2% (3/193)	2% (10/688)

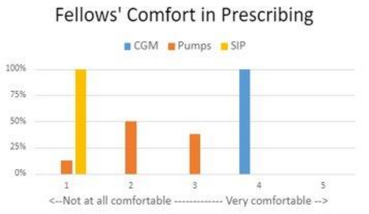
Implementation



Cycle 1 Results:
Self-reported improvement in CGM comfort, no improvement in SIP

Cycle 2 Results:
Reviewed T1DM patients seen by fellows in the month after Cycle 1

Cycle 3 Results:
Sent MyChart message to 41 patients not on pump



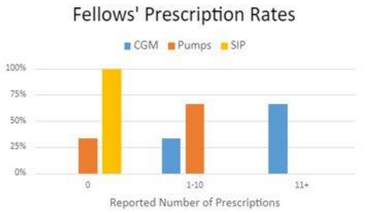
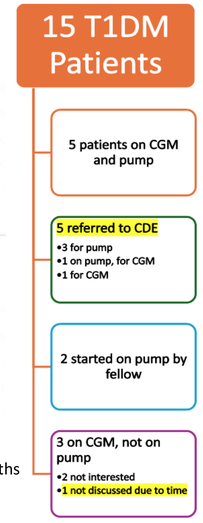


Figure 5: Repeat fellows survey after three months



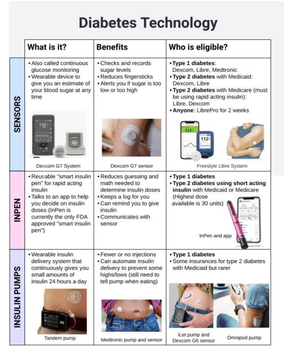


Figure 6: Patient friendly technology handout

Next Steps

- Assess response to handout/messages (ongoing)
- Next EHR data collection at 6-month mark (~Jan 2025)
- Create EPIC Best Practice Advisory or MyChart Next Steps
- Group telemedicine education classes for patients to support transition to pump

References

Agarwal, Shivani, Marisa Hilliard, and Ashley Butler. 2018. "Disparities in Care Delivery and Outcomes in Young Adults with Diabetes." *Current Diabetes Reports* 18 (9). https://doi.org/10.1007/s11892-018-1037-x.

Fantasia, Kathryn L, Kamonkiat Wirunsawanya, Christopher Lee, and Ivania Rizo. "Racial Disparities in Diabetes Technology Use and Outcomes in Type 1 Diabetes in a Safety-Net Hospital." *Journal of Diabetes Science and Technology* 15, no. 5 (March 10, 2021): 1010–17. https://doi.org/10.1177/1932296821995810.