Reducing Disparities in CGM Use for Youth with Type 1 Diabetes

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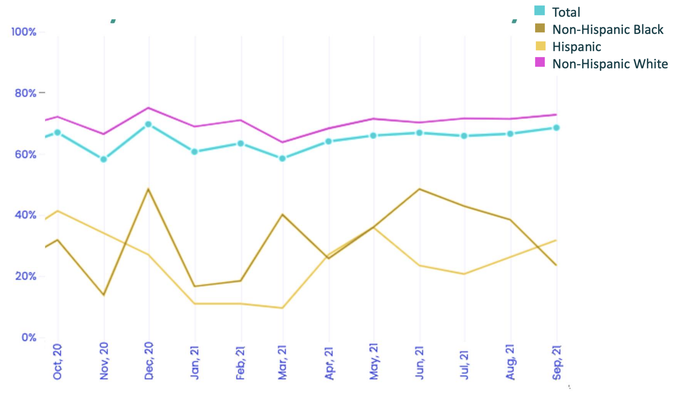
Background

- Youth with T1D have improved glycemic levels and quality of life with continuous glucose monitors (CGM) yet only 65% of youth with T1D at UW Health Kids were using a CGM
- Disparities exist in CGM access in our clinic (Figure 1)
- Setting: Our academic clinical center serves 850 youth with T1D, including 80-140 new per year
- **SMART aim:** Increase the percent of all youth with T1D who use CGM from 65% to 75% between Sept 2021 to May 2022 by reducing disparities

Methods

- Stakeholder team identified goals, set project direction, and identified key drivers & change ideas (Figure 2)
- PDSA cycles focused on 4 key drivers
  - **Family education** – standardized CGM education and incorporated in new onset education bundle
  - **Provider education** – disseminated disparity data internally with provider and RN education
  - **Order process** – streamlined internal order process & created universal CMN adopted by DME companies
  - **Advocacy** – lobbying WI MA to adopt universal CGM coverage for youth with diabetes

a. **Youth with T1D using a CGM by race and ethnicity**



b. **Youth with T1D using a CGM by insurance type**

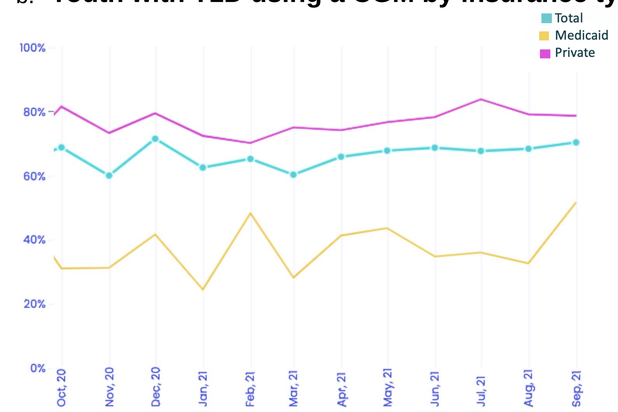


Figure 1a. Run chart of percent youth with T1D at UW Health Kids baseline who use CGM by self-identified racial and ethnic group. **b.** Run chart of percent youth with T1D at UW Health Kids baseline who use CGM by insurance type

Results

Youth newly diagnosed with T1D using a CGM 3-mo after diagnosis

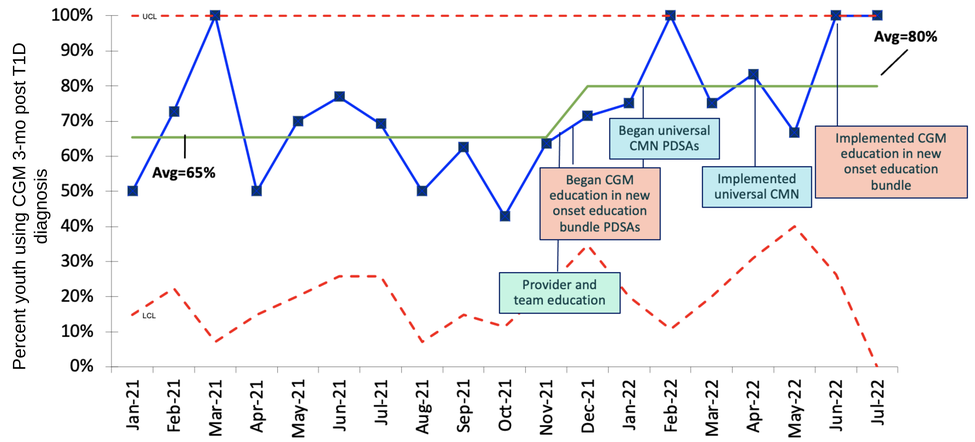


Figure 3. P Chart showing percent youth using a CGM by 3 months after T1D diagnosis date with PDSA cycles annotated. UCL: upper control limit. LCL: lower control limit.

Youth with T1D using a CGM by insurance type

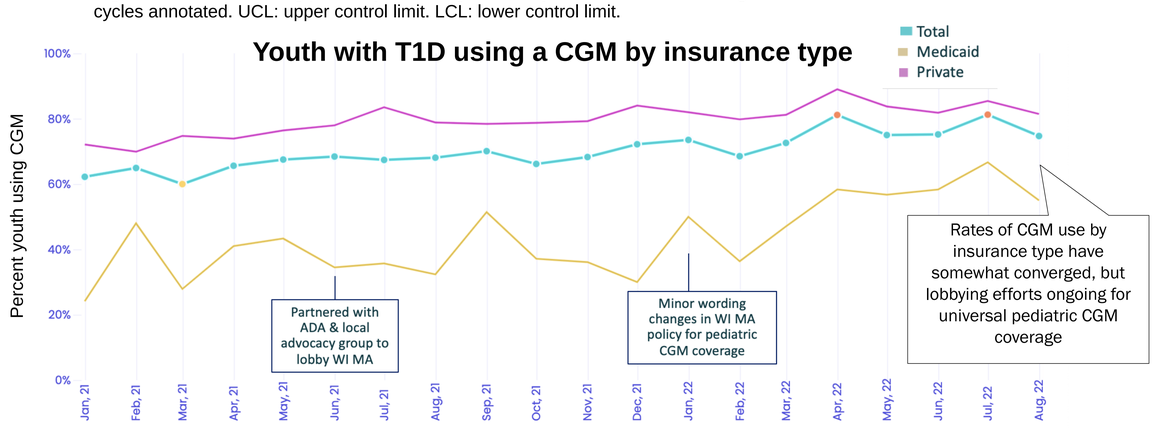
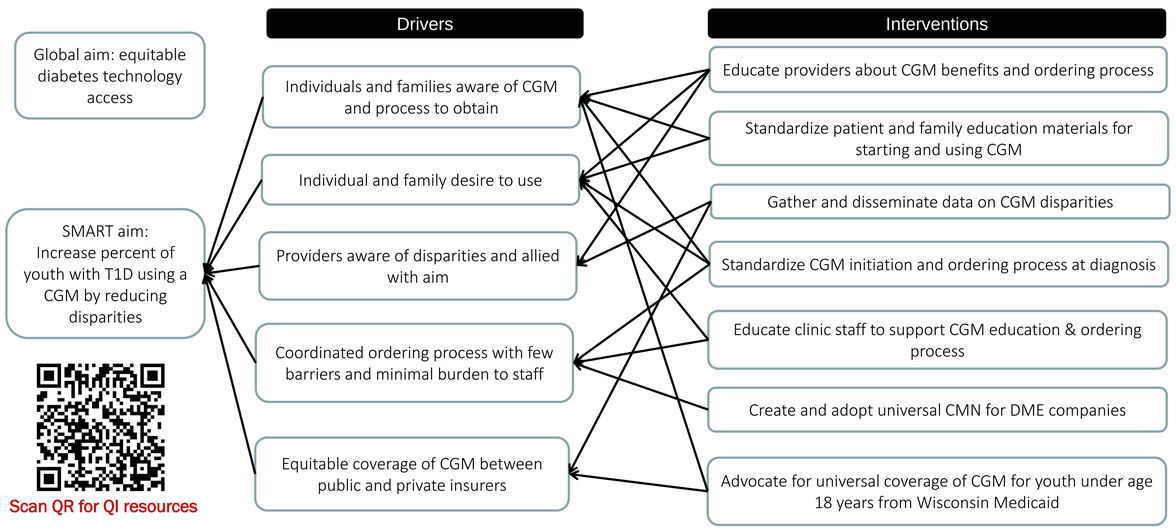


Figure 4. Run chart of percent youth with T1D at UW Health using CGM by insurance type

Figure 2 Key Driver Diagram with interventions and drivers to increase percent of youth with T1D using a CGM through reducing disparities



Scan QR for QI resources

Youth with T1D more than 12 months using a CGM

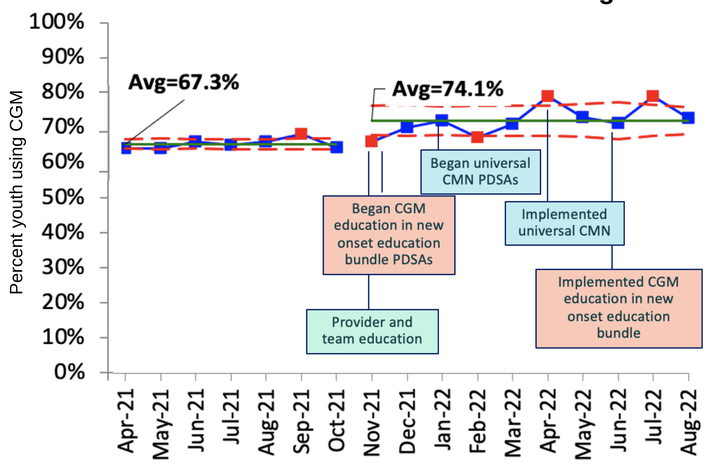


Figure 5. P chart showing percent youth using a CGM. Data from T1D Exchange QI Portal and includes all youth at UW Health Kids with T1D at least 12 months. Red dotted lines: upper and lower control limits

Conclusions

- Incorporating CGM education in new onset bundle, educating providers and diabetes team, and streamlining the order process have increased percent using CGM 3-mo post T1D diagnosis
- These interventions also impacted CGM use for those with T1D more than 12 months
- Small increase in CGM use equity by insurance type but not yet by race/ethnicity
- We anticipate earlier utilization of CGM by new onset youth will be reflected in the overall CGM use rates in the future
- Advocacy work ongoing to achieve universal WI MA CGM coverage

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