

The Seattle Children's Hospital & University of Washington Medicine Adolescent and Young Adult Diabetes Program proved successful in increasing CGM use and mitigating health insurance disparities in adolescents and young adults with type 1 diabetes.

**Key Drivers** 

Patient and parent

education

Provider prescribing

behaviors

Health insurance

barriers

Patient-reported

barriers to CGM use

#### **SMART Aim**

Increase CGM use in adolescents and young adults with type 1 diabetes by 10% after 12 months of AYA Diabetes Program enrollment by July 2022



Offer standardized diabetes technology education to all patients at first two AYA Diabetes Program visits

Provide access to video interpreters to facilitate education/training in patient's preferred language of care when in-person interpreters not available

Coordinate implicit bias training for providers

Offer CGM samples to support a trial period to meet glucose monitoring requirements for insurance approval and experience potential benefits of CGM use

Hire durable medical equipment coordinator

Create educational material to address modifiable patient-reported barriers to CGM use

Screen for mental health comorbidities (e.g., depression, anxiety, diabetes distress)

Provide access to a psychologist to manage mental health comorbidities and discuss concerns about wearing diabetes technology



# Improving Continuous Glucose Monitoring Use in Adolescents and Young Adults

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## **BACKGROUND**

- A significant percentage of adolescents and young adults (AYA) with type 1 diabetes do not use continuous glucose monitor (CGM) systems to support diabetes management
- The Seattle Children's Hospital (SCH) and University of Washington (UW) AYA Diabetes Program is a partnership between SCH and UW Medicine to meet diabetes management, mental health, and health care transition needs of AYA with diabetes

### **OBJECTIVE**

• To examine the impact of the SCH-UW AYA Diabetes Program on CGM use among AYA with type 1 diabetes and assess whether this varied by health insurance and race/ethnicity

### **METHODS**

- Study included AYA with type 1 diabetes who received diabetes care within the AYA Diabetes Program for ≥6 months from 2018-2022
- Proportions and 95% confidence intervals were calculated using generalized linear models with a log link and robust variance estimator to cluster on individual to account for repeated measures.
- Assessed for effect modification by health insurance and race/ethnicity

#### RESULTS

- Sample included 526 AYA (77% non-Hispanic White, 27% public insurance)
- CGM use at baseline AYA Diabetes Program visit was 64% (95% CI: 60-69%) and increased over time (Figure 1)
  - CGM use increased to 82% approximately 12 months after program enrollment (95% CI: 76-87%)
  - CGM use increased to 88% approximately 24 months after program enrollment (95% CI: 82-94%)
- There was evidence of effect modification by health insurance type for CGM use (p<0.01; Figure 2) but not by race/ethnicity
  - Baseline CGM use was significantly lower among public vs private insurance participants (50%, 95% CI: 41-59%; vs. 69%, 95% CI: 64-74%) but not after 6-months of program participation (77%, 95% CI: 65-89% vs. 80%, 95% CI: 74-86%)

