

# Continuing improvement of health equity: use of continuous glucose monitoring technology among youth with type 1 diabetes

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## Aim

Increase insulin pump and CGM equity ratio between T1D black/white patient populations (1:1) from 0.44 to 1 (Pump) and from 0.7 to 1 (CGM) by 12/31/2022 and sustain through 2023.

## Background

The use of continuous glucose monitors (CGM) has been shown to have improved glycemic control in children and adolescents, and improve diabetes related distress and quality of life

Disparities exist in access to diabetes technology, in which racial/ethnic minorities have consistently lower CGM utilization, which may affect diabetes outcomes

## Methods

A Key Driver Diagram was established to clarify project goals (see Figure)

Patient clinic census (among patients with T1D for ≥ 12 months) was evaluated for 22 months:

- NEW CGM Uptake
- Continued CGM Utilization

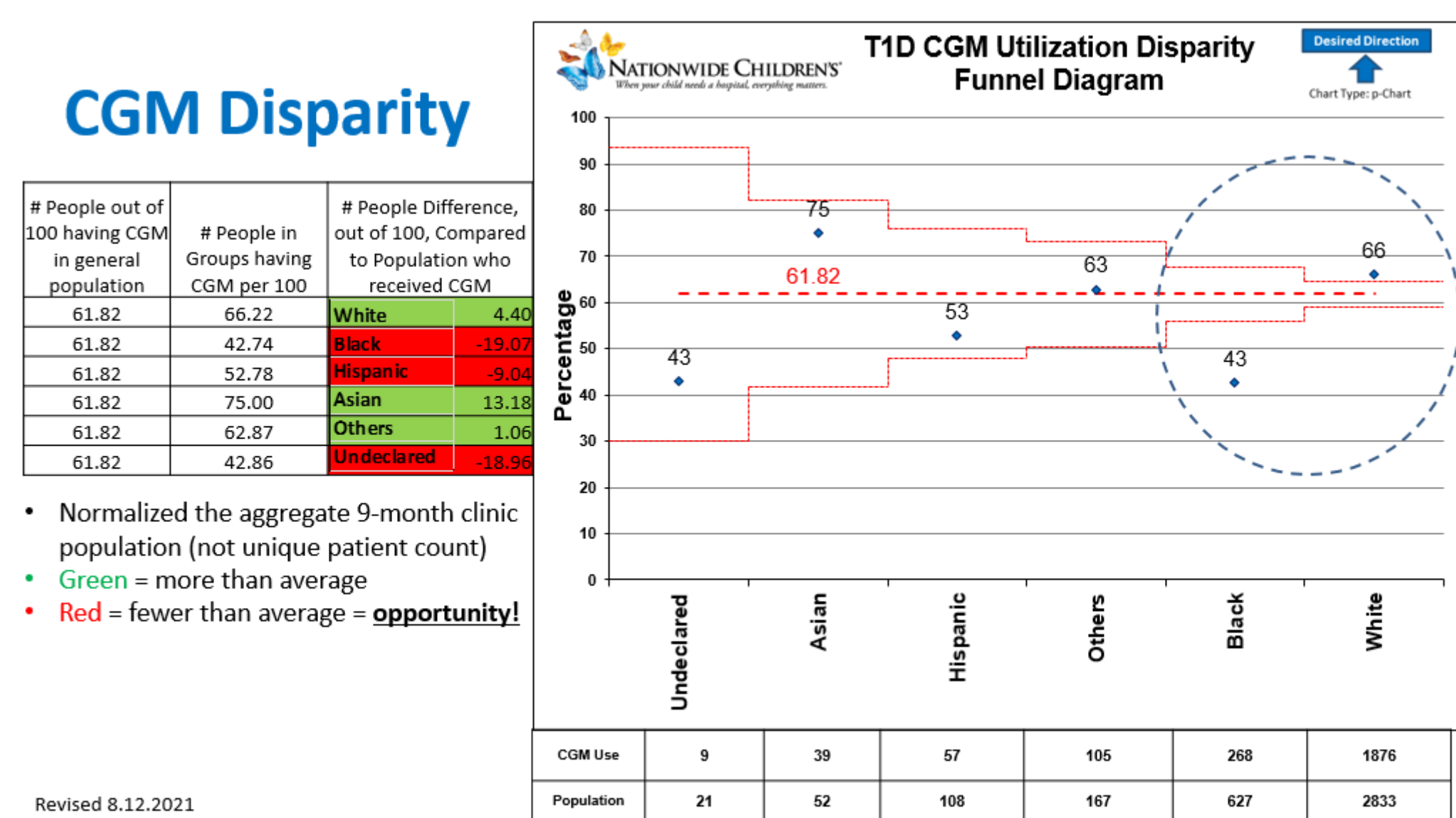
**“CGM Uptake Ratio”:**

**Black T1D Population CGM Use/100 Clinic Visits**

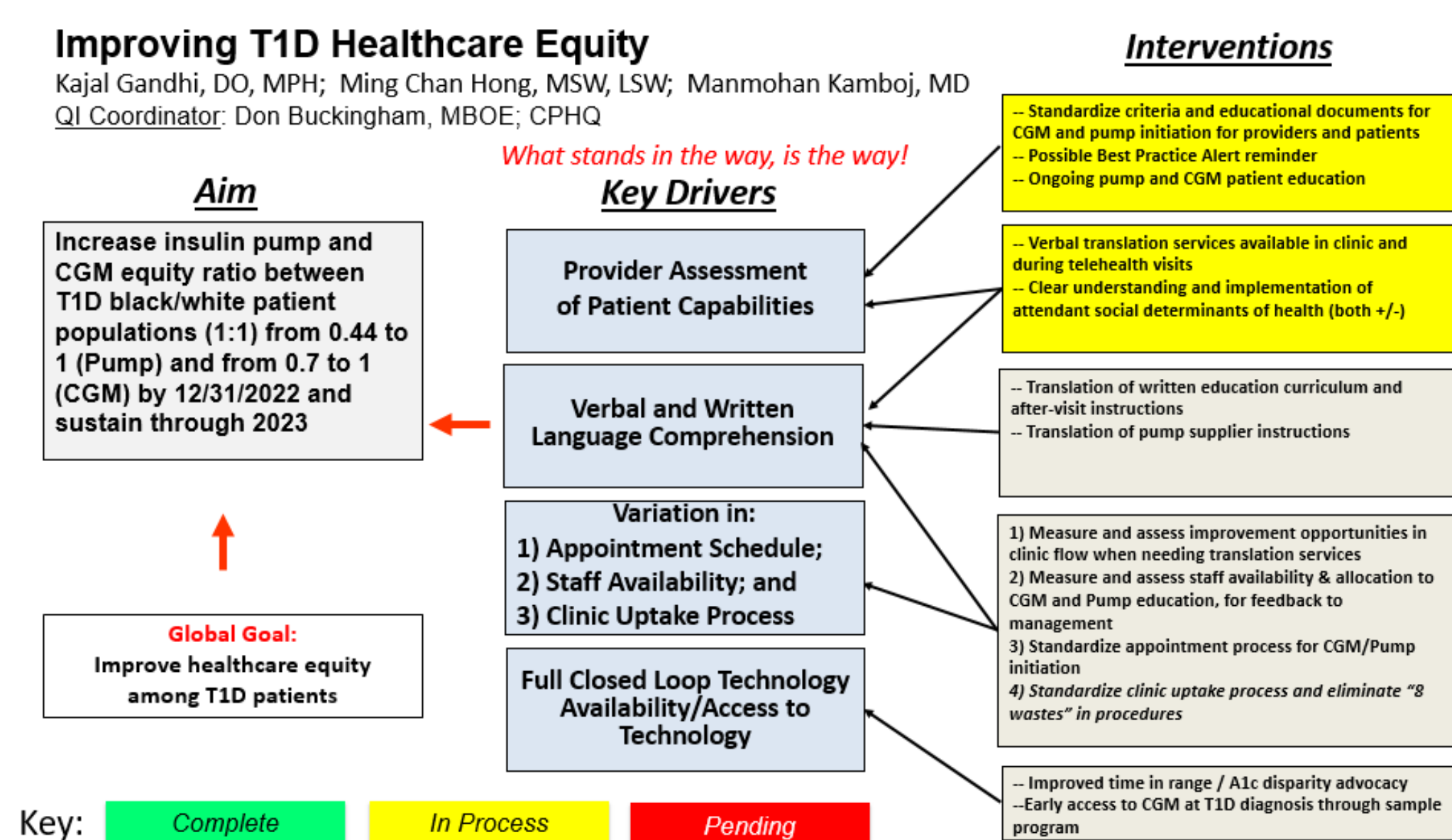
**White T1D Population CGM Use/100 Clinic Visits**

**(goal ratio: 1:1)**

## Baseline Analysis



## Key Driver Diagram



## References

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## Results

Data showed: 1) overall increase of CGM use across all T1D populations; 2) approximate **50% equity uptake improvement between Black and White new users**

August 2017: Initiation of electronic LMN (letter of medical necessity)

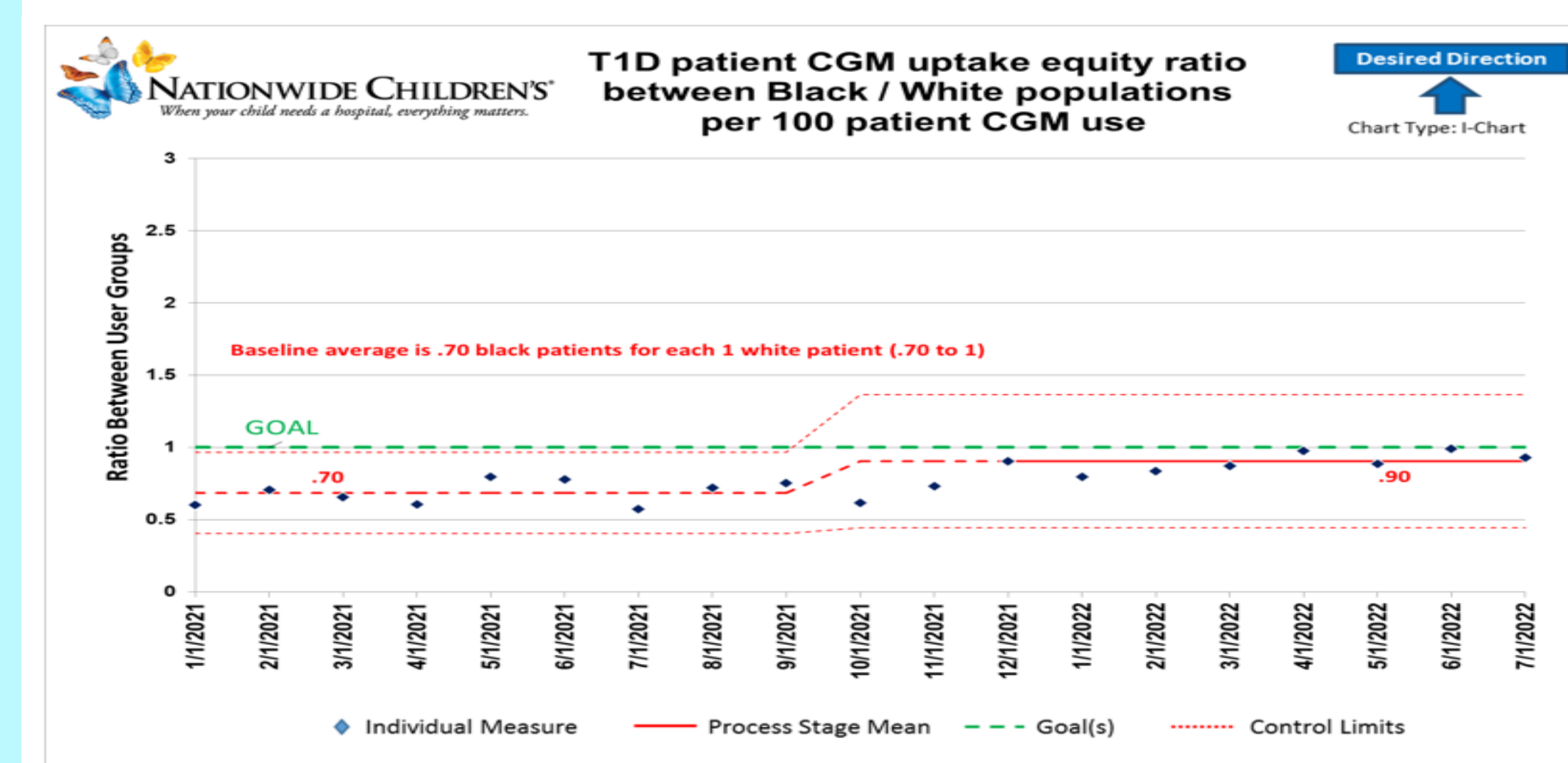
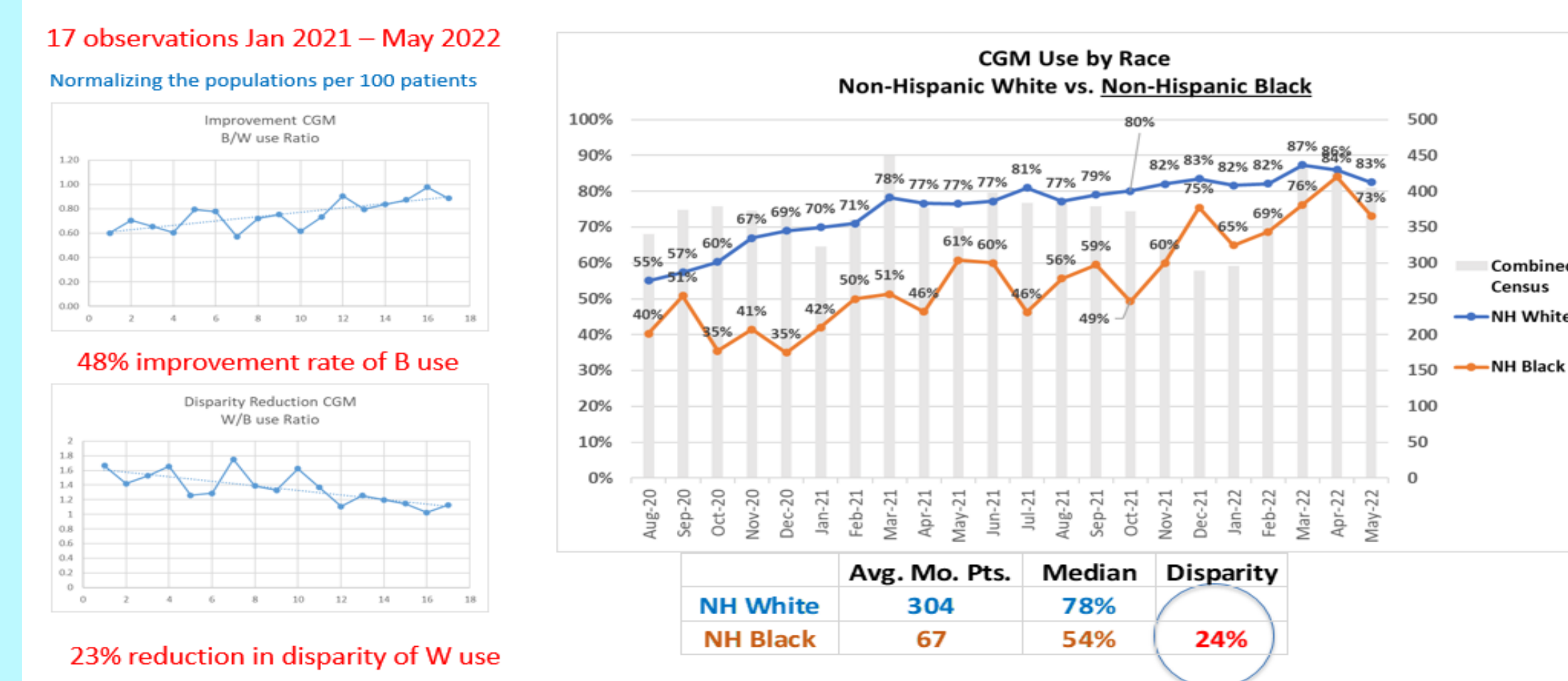
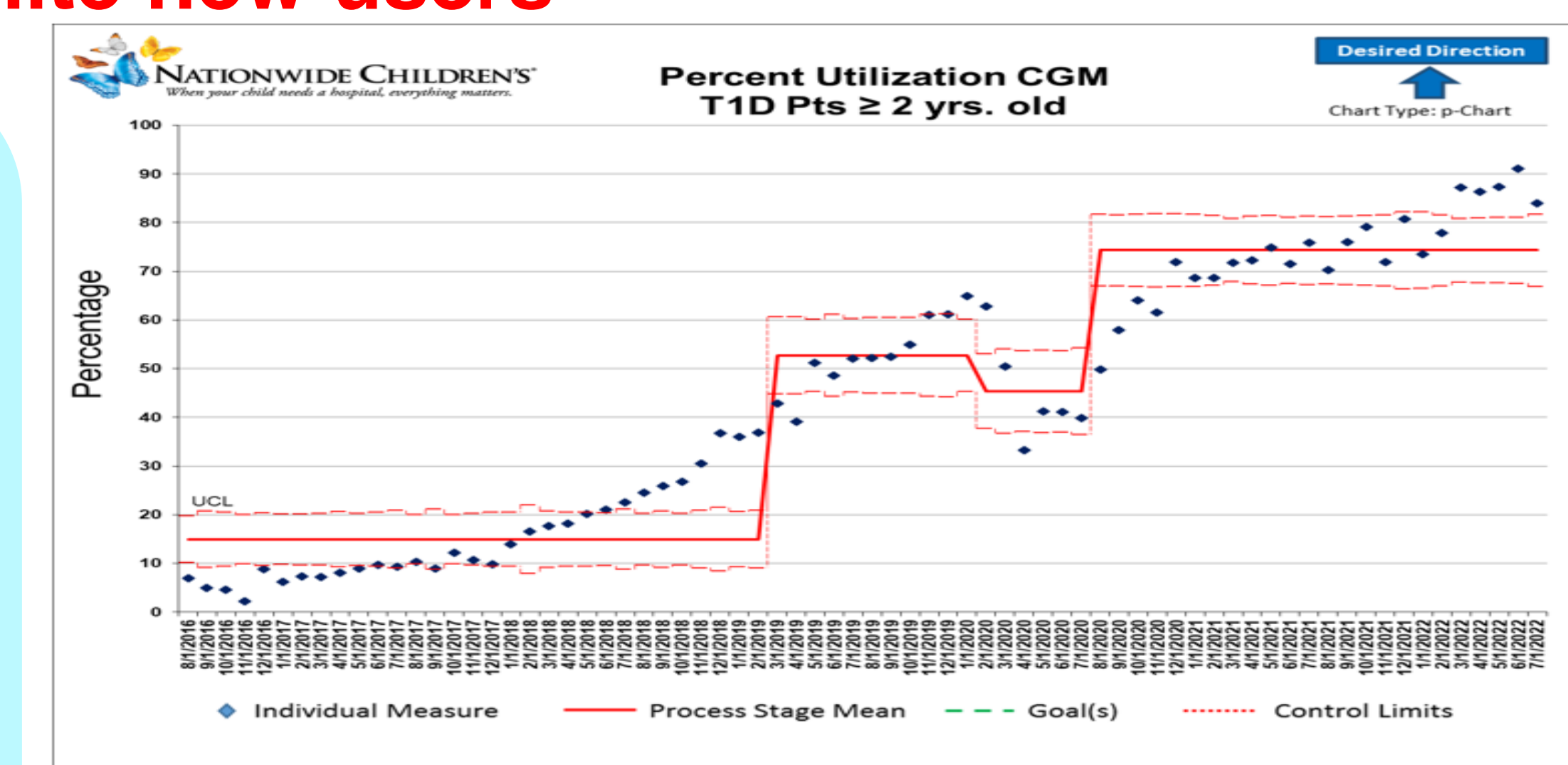
September 2018: Implementation of billing codes for CGM placement and interpretation in EMR

April 2020: Standardized CGM Education and Assessment Tools for diabetes providers

November 2019-September 2020: Advocated for expanded CGM coverage with ODM; successful coverage expansion in Sept 2020

January 2021: T1D Family Focus Groups on DM Technology

November 2021: Identifying biases and addressing SDOH



## Conclusion

This Project improved CGM utilization across all users and reduced disparity for CGM Utilization between Black and White T1D patients

Future work will be directed at continuing to promote health equity among Black/White T1D population and expanding to other ethnic minority populations with T1D to improve diabetes outcomes.