

Improving A1C since joining T1D exchange; One centers journey

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Background/Objective :

- Improving outcomes in People with T1D (PWD) can mean many different things.
- A metric often used is A1C. As we implement new methods of diabetes care we often rely on changes in A1C to confirm or validate our efforts.
- Lebonheur Children's Hospital/University of Tennessee Joined the T1Dexchange QI consortium in 2020.
- Here we are pleased to share the changes in A1C averages across our entire patient population.

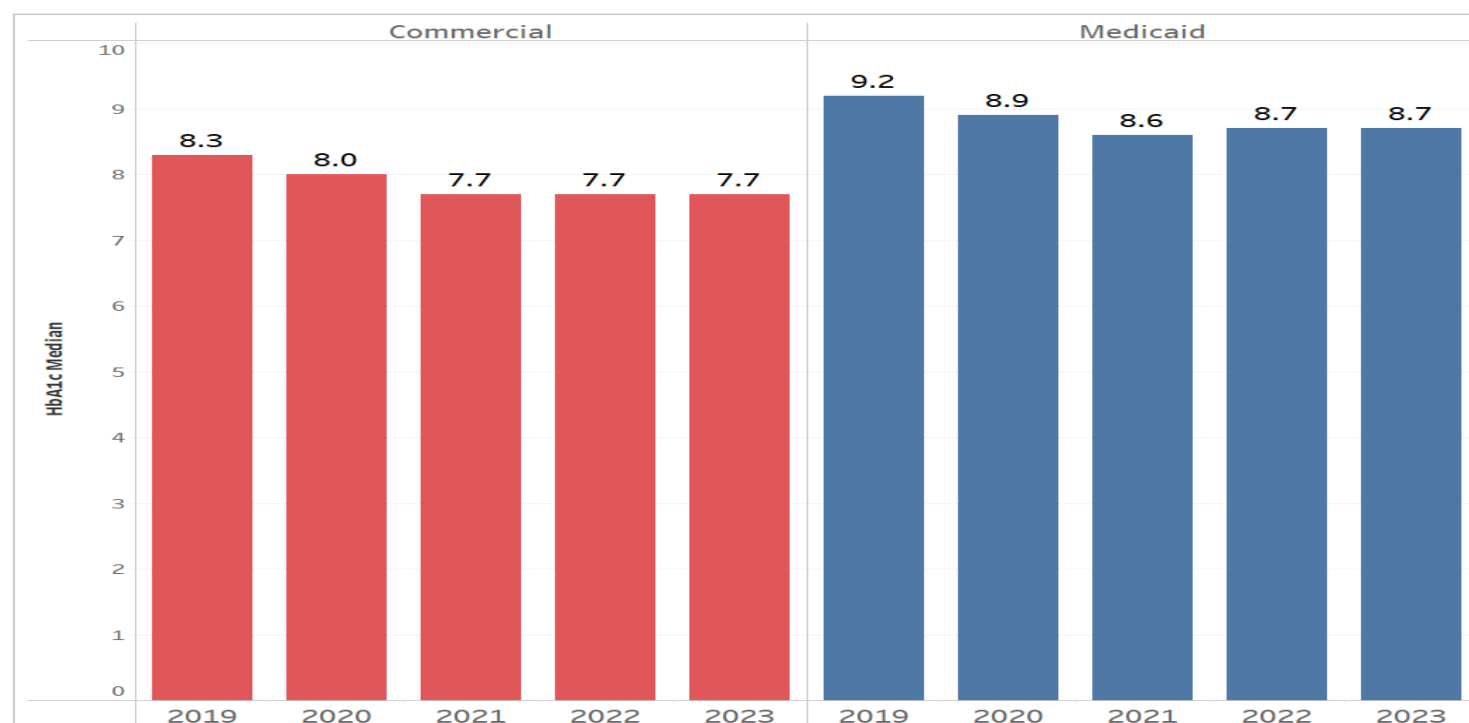
Methods :

- We examined HbA1Cs based on the lowest reported A1C in that year for patients diagnosed for more than one year and seen at least two times per year.
- Analyzed the breakdown of A1C ranges to get a better sense of what was driving changes.

Type 1 HbA1c Median Results, by Payer Type

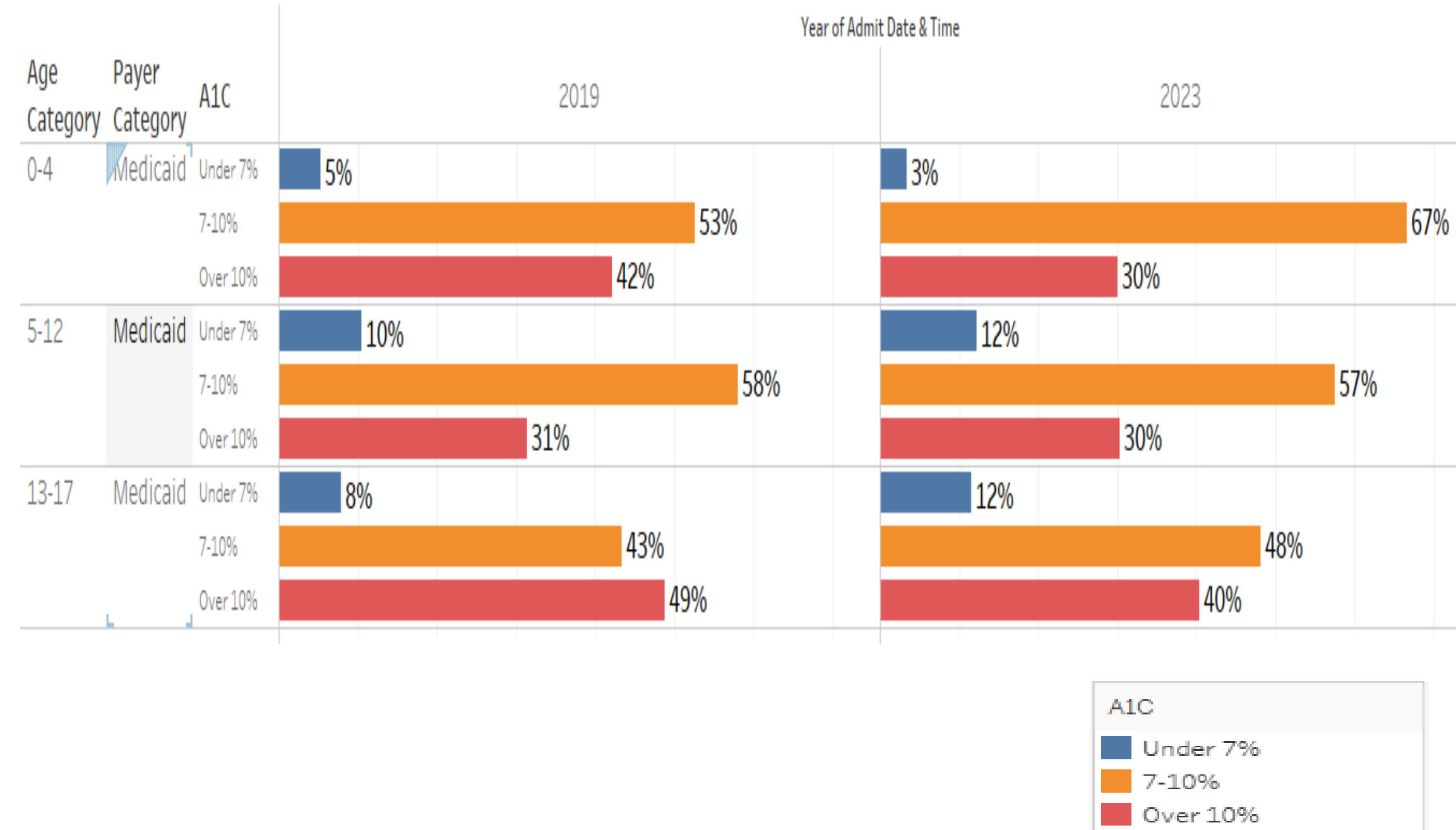
2019 Private – 8.3
Public – 9.2

2023 Private – 7.7
Public – 8.7



Medicaid

Percent of patients in control – Improving over time – Type 1

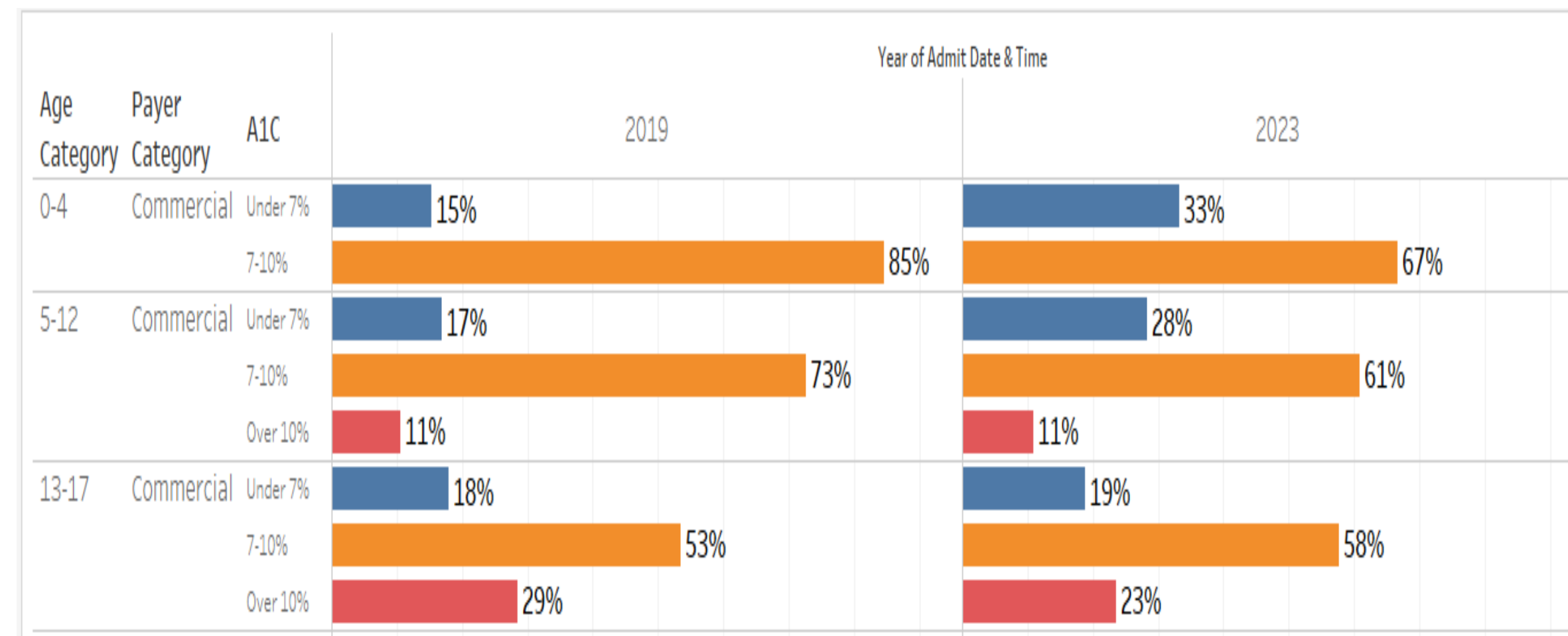


Results:

- In 2019 PWD and private insurance had A1C of 8.3, in 2023 this improved to 7.7%. In 2019 PWD and public insurance had A1C of 9.2, in 2023 this improved to 8.7.
- In 2019 of PWD and public insurance, 53% age 0-4 had A1Cs between 7-10%, in 2023 this number increased to 67%. Those with A1C >10% went from 42% to 30%. Patients with public insurance age 13-17 went from 49% with A1C >10% to 40% between 2019 and 2023.
- When looking at those with commercial insurance, PWD age 0-4 and A1C at target (<7%) from 15% to 33% between 2019 and 2023. Age 5-12 went from 17% to 28% at target.

Commercial

Percent of patients in control – Improving over time – Type 1



Conclusions

- Improvement in A1C is seen across all categories.
- We have been an active member of T1DX during this same time frame.
- During this time we have increased CGM and insulin pump (Hybrid Closed loop) delivery.

Reference:
 Emma Ospelt, Nudrat Noor, Janine Sanchez, Grace Nelson, Nicole Riotes, Faisal S. Malik, Marina Basina, Justin Indyk, Francesco Vendrame, Jessica Schmitt, Mary L. Scott, Osagie Ekekozien; on behalf of the T1D Exchange Quality Improvement Collaborative. Facilitators and Barriers to Smart Insulin Pen Use: A Mixed-Method Study of Multidisciplinary Stakeholders From Diabetes Teams in the United States. *Clin Diabetes* 2 January 2023; 41 (1): 56-67. <https://doi.org/10.2337/clin22-0068>. *EWCL2.5*

Ori Odugbesan, Ananta Addala, Grace Nelson, Rachel Hopkins, Kristina Cossen, Jessica Schmitt, Justin Indyk, Nana-Hawa Yayah Jones, Shivani Agarwal, Saketh Rompicherla, and Osagie Ekekozien. Implicit Racial-Ethnic and Insurance-Mediated Bias to Recommending Diabetes Technology: Insights from T1D Exchange Multicenter Pediatric and Adult Diabetes Provider Cohort. *Diabetes Technology & Therapeutics*. Sep 2022. 619-627. <https://doi.org/10.1089/dia.2022.0342>. *EWCL2.5*