

National Trends in Certified Diabetes Care Education Specialists Distribution: Data from TIDX-QI

Authors: Holly Hardison, BS¹, Emma Ospelt, MPH¹, Osagie Ebekozien, MD, MPH^{1,2}, James Dawson, BS¹, Stephanie Ogburn, CDCES³, Isabel Reckson, RD, CDCES, MPH⁴, Alisha Virani, MS, RD, LD, CDCES⁵, Kim McNamara, BSN, CDCES⁶, Rachel Fenske, PhD, RD⁷, Aledia Saenz, APRN, FNP_BC, CDCES⁸, Nicole Rioles, MA¹

T1D Exchange; 2) University of Mississippi School of Population Health;3) Cook Children's Hospital; 4) Weill Cornell Medicine; 5) Grady Memorial Hospital;
6) Rady Children's Hospital; 7) University of Wisconsin; 8) University of Miami Miller School of Medicine

Background

With the growing costs in diabetes management, it is imperative to expand strategies in health care to improve outcomes and access to quality care¹.

The Certified Diabetes Education Care Specialist (CDCES) role is critical in providing education, understanding patients needs and preferences and assisting the care team in collaboration and support¹.

The American Diabetes Associations' 2023 Standard of Care highlights the need for a multidisciplinary team to ensure that PwD needs are met and supported in all areas of their diabetes management, which include educational support from CDCES².

T1D Exchange Quality Improvement Collaborative (T1DX-QI) is a network of over 50 academic medical centers implementing Quality Improvement (QI) to improve outcomes for People with Diabetes (PwD).



Q Pediatric 🛛 Q Adult 🛛 Q T1D Exchange HQ

Figure 1: T1DX-QI Map

Methods

The T1DX-QI Annual Clinic Survey was open from August - November 2022.

33 pediatric centers and 16 adult centers reported their clinical FTE.

Descriptive analysis using T-test and ANOVA was performed to look at the relationship between FTE in adult vs pediatric centers, centers with a majority of publicly insured vs a majority of privately insured, and four geographic locations.

Results

 The average reported FTE for adult centers was 2.7 while the average reported FTE for pediatric centers was 5.5, with a p value of 0.003

Averages were compared per 1,000 patients as a standard. Five pediatric centers stated that they have over 10 FTE for CDCES while no adults were above 5 for FTE.

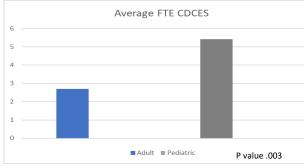


Figure 2. Average FTE for CDCES

- Two of the adult centers also reported that they have 0 FTE for CDCES while only 1 pediatric center reported 0 FTE.
- There was no significance between centers that serve the majority of patients on public vs private insurance.
- Geography of center location also showed no significance in FTE distribution.
- Results from this analysis emphasize the call to action to support increased staffing at adult centers.

Variable	Average FTE/1000 People	N	P value
	with T1D		
Pediatric vs	Peds: 5.5	Peds: 33	.003
Adult Clinics	Adult: 2.7	Adult: 16	
Insurance Type	Private: 3.6	Private: 35	0.19
	Public: 5.2	Public: 14	
Geographic	Mid Atlantic: 5.1	Mid Atlantic: 20	0.41
Location	South/Southwest: 3.8	South/Southwest: 9	
	Mid-West: 3.1	Mid-West: 9	
	West: 3.2	West:11	

Table 1: CDCES FTE staffing comparisons

Discussion

Results are representative across national regions, showing that this disparity between adult and pediatrics is impacting the care that is provided in adult diabetes/endocrine ambulatory setting. Limited staffing can lead to delays in care, lower quality care, and clinical staffing burnout. Care should be comprehensive and coordinated, which can be more challenging to deliver with limited staffing support.



Figure 3. Areas CDCES can support PwD

Study Limitations

- Data only representative of major academic centers.
- Relatively small study sample size.
- Study did not include data on effectiveness of diabetes education.

Conclusion

The significance in adult and pediatric centers FTE distribution aligns with current literature calling for advocacy for staffing in adult centers.

Acknowledgements

This research was supported in part by The Leona M. and Harry B. Helmsley Charitable Trust.

References

1. Kellie Rodriguez, Donna Ryan, Jane K. Dickinson, Victor Phan; improving Quality Outcomes: The Value of Diabetes Care and Education Specialists. Clin Diabetes 1 July 2022; 40 (3): 356–365.

Nuba A. Efsyed, Grazia Aégop, Vanta R. Aroda, Ravendhara R. Bannur, Informe C. M. Brown, Dennis Buemmer, Billy S. Collins, Mariaz I. Hillard, M. Lohnson, Sott Hann, Amineh Khani, J. Lohnson, Sott Hanna, Janneh Khani, Jaco Lon, Sarh X. Lonova, Navy Lao Prinz, Physica Phabale, Richard F. Steinela, Inae Mrtie Seider, Bohert C. Starton, Robert A. Gabary, on behalf of the American Diabetes Association, 1. Improving Care and Promoting Health in Populations: Standards of Care in Diabetes—2023. Diabetes Care January 2023, e6 Speetment, 13: 10-31.