



Use of Telehealth for Individuals with Sickle Cell Disease During the COVID-19 Pandemic



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Background

- Sickle cell disease (SCD) causes early mortality and significant morbidity, which can be reduced with routine medical care.
- Telehealth, which has increased in frequency during the COVID-19 pandemic, can improve access to care for individuals with chronic conditions, including SCD.

Objectives

Characterize telehealth use among individuals with SCD during the COVID-19 pandemic and assess differences in demographics and healthcare utilization between those who did and did not use telehealth.

Methods

Data Source:

- Sickle Cell Data Collection (SCDC) programs in four states (California, Georgia, Michigan, Tennessee)
 - SCDC is a CDC-funded program which leverages multiple data sources to identify and longitudinally assess healthcare among individuals with SCD
- Individuals with SCD are identified using validated case definitions.

Study Population:

- Individuals ≥ 1 years of age with SCD continuously enrolled in Medicaid in California, Georgia, Michigan, or Tennessee, September 2019-December 2020.

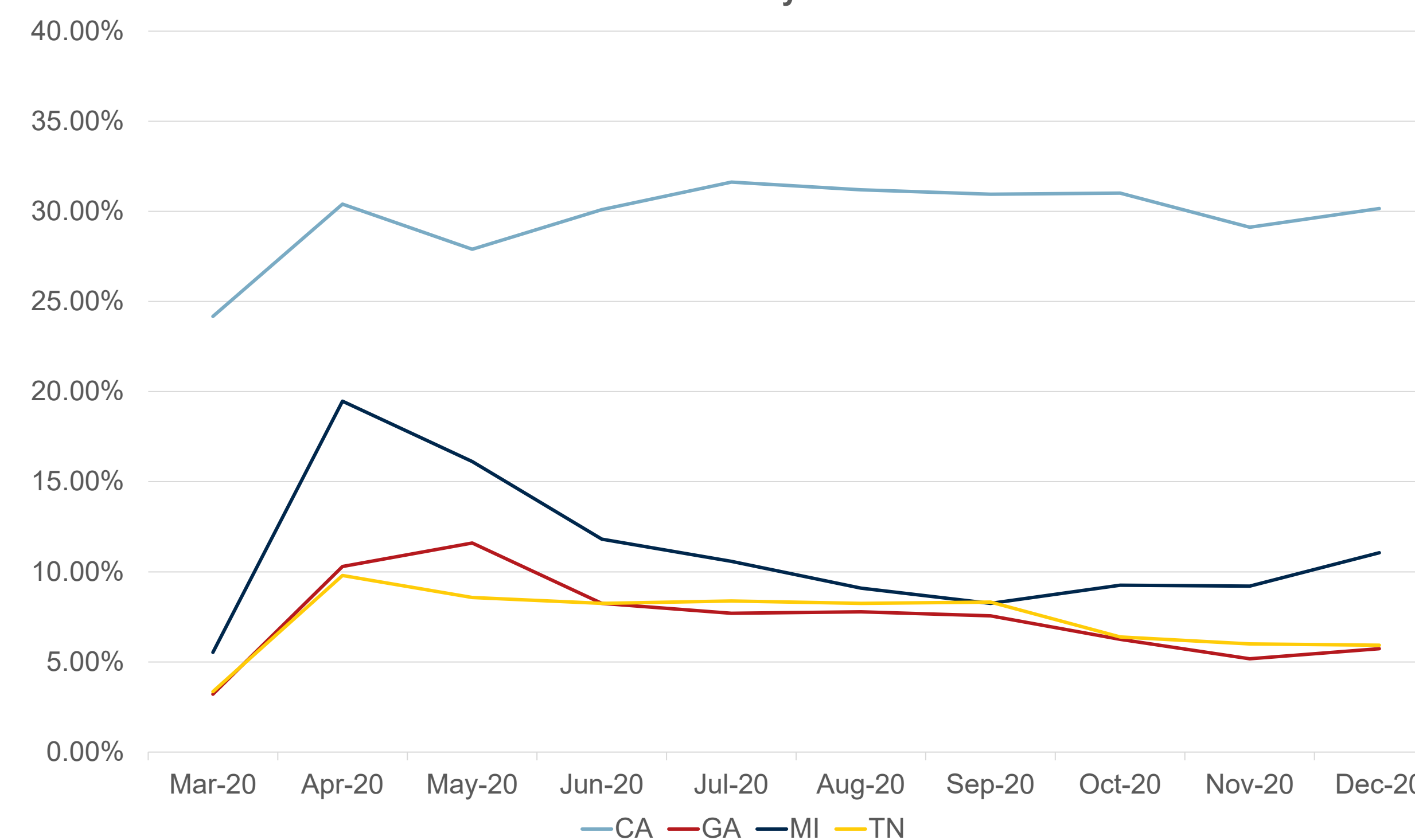
Analysis:

- Telehealth users were defined as individuals with at least one telehealth encounter during the COVID pandemic period (3/2020-12/2020).
 - Demographics and healthcare utilization was compared between users and non-users using chi-square and independent sample t-tests.
- Telehealth encounters were characterized by presence of an SCD diagnosis code and provider's specialty for the encounter.
- Provider specialty was determined using the provider's primary specialty from the National Plan and Provider Enumeration System, linked by National Provider Identifier.

Results

- A total of 8,681 individuals with SCD met study criteria.
- Monthly telehealth use among individuals with SCD increased sharply at the start of the pandemic across all states (Figure 1).

Figure 1. Percentage of Persons with SCD (n=8,681) Who Used Telehealth, by Month and by State



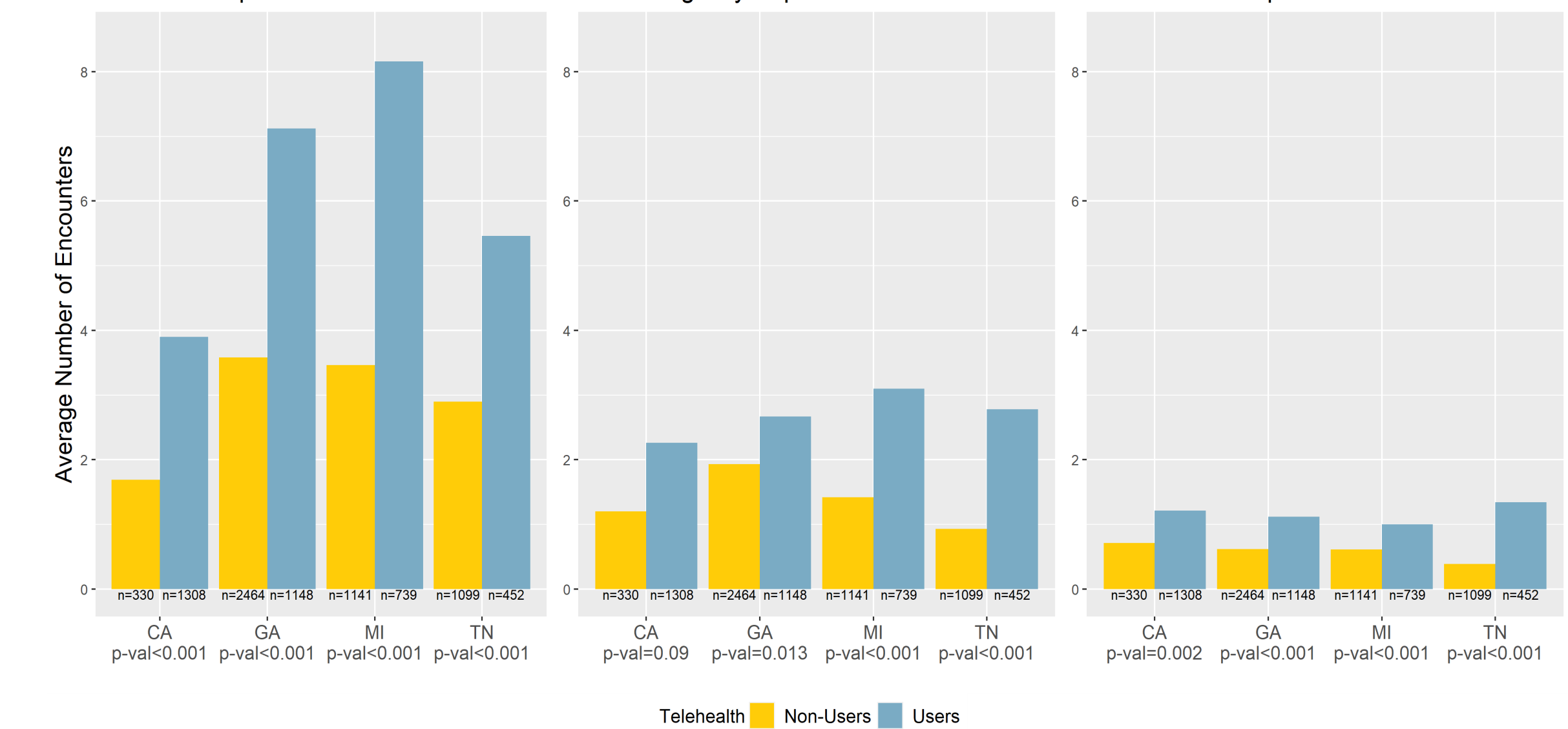
- Proportion of SCD individuals with ≥ 1 telehealth encounter during the COVID-19 pandemic varied across states from 29% in TN to 80% in CA (Table 1).
- In MI and GA, over a third of encounters were with behavioral health providers.

Table 1. Telehealth Use and Characteristics of Telehealth Encounters

	CA (n=1,638)	GA (n=3,612)	MI (n=1,880)	TN (n=1,551)
Telehealth Users	1,308 (80%)	1,148 (32%)	739 (39%)	452 (29%)
Total Telehealth Encounters	N=12,294	N=4,615	N=3,298	N=1,425
SCD Diagnosis Code	8,854 (72%)	1,330 (29%)	912 (28%)	648 (46%)
Provider Specialty^a				
Hematologist	4,223 (34%)	688 (15%)	418 (13%)	N/A
Behavioral Health	277 (2%)	1,575 (34%)	1,288 (39%)	N/A
Primary Care	3,316 (27%)	767 (17%)	1,260 (38%)	N/A
Other	4,478 (36%)	1,585 (34%)	332 (10%)	N/A

^a Provider Specialty unavailable for TN

Figure 2. Average Number of Acute Care Encounters by Telehealth Use Status During COVID-19



- Telehealth users had higher proportion of adult than pediatric patients compared with non-users in all states except CA where the association was reversed
 - MI: 69% vs 54%, TN: 71% vs 47%, GA: 48% vs 37%; CA: 52% vs 61%
- Average number of encounters was significantly higher among telehealth users for nearly all three encounter types across all states (Figure 2).
 - A significant difference was not observed in Emergency Department encounters in CA between users and non-users.

Conclusions

- Telehealth appears to be a feasible method for individuals with SCD to access care, particularly related to behavioral health.
- Further research is warranted to understand effects of policies encouraging broad reimbursement for telehealth.
- Understanding the acceptability of specific types of care provided via telehealth among people with SCD will be important in order to leverage this method of health care delivery to increase access to care.

Funding (CDC-RFA-DD20-2003) provided by the Centers for Disease Control and Prevention (CDC).