# Geographic Mobility Among Medicaid Beneficiaries With Sickle Cell Disease in California and Georgia, 2014 to 2016

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## BACKGROUND

- Persons living with sickle cell disease (SCD) experience significant morbidity stemming from disease symptoms and complications, including frequent episodes of pain, lifelong anemia, and end-organ damage.<sup>1,2</sup>
- A substantially greater percentage of persons with SCD rely on Medicaid than those with other rare diseases, including hemophilia and cystic fibrosis.<sup>3-5</sup>
- Understanding mobility among individuals with SCD who are Medicaid beneficiaries may provide insight on some of the variability in access to and continuity of care.

## **OBJECTIVES**

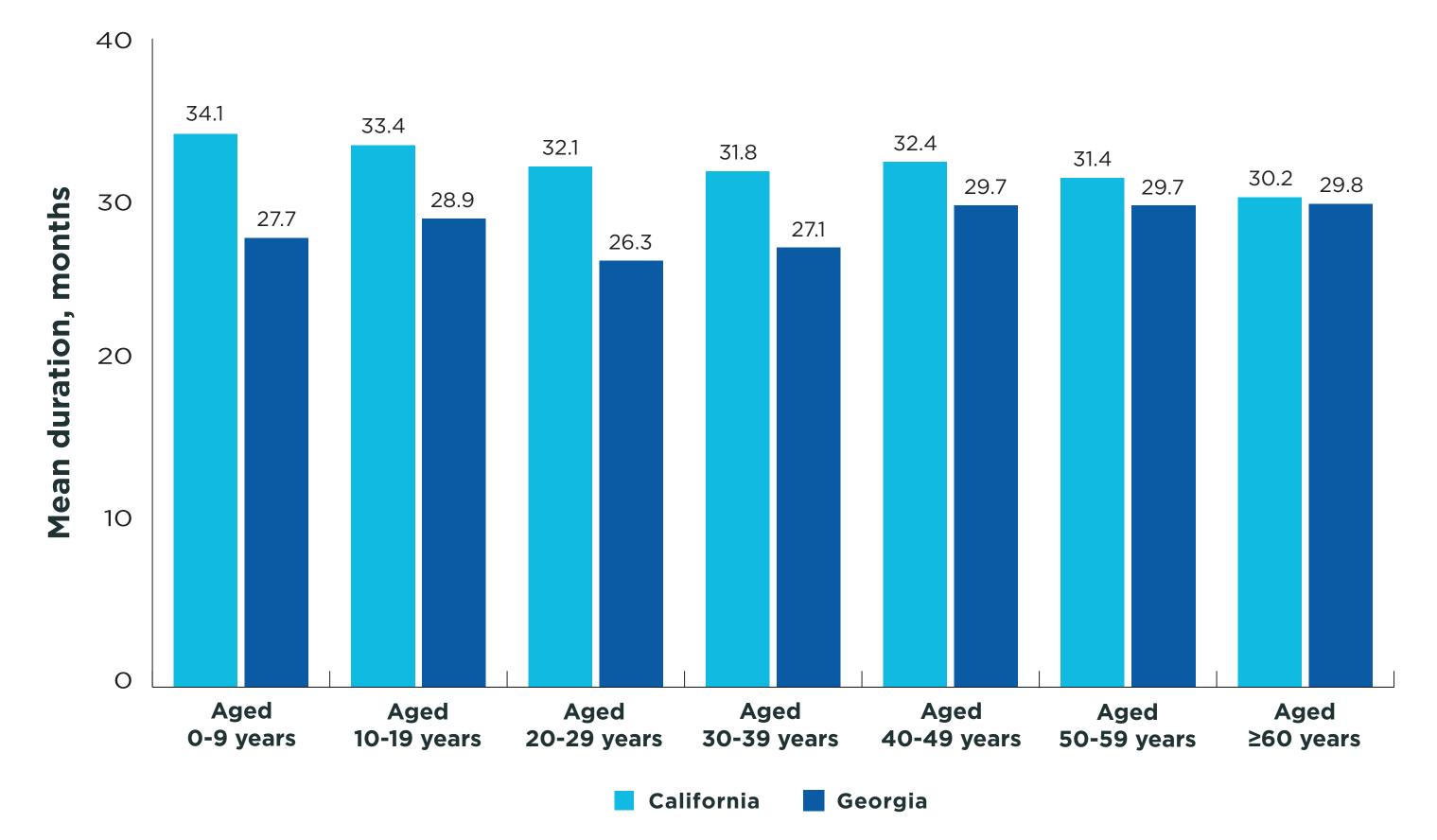
 To describe the geographic mobility at the county and ZIP code levels for Medicaid beneficiaries with SCD who lived in California or Georgia during from 2014 to 2016

## METHODS

- The California and Georgia Sickle Cell Data Collection (SCDC) programs gathered clinical, newborn screening, and administrative data.
- The data were linked and deduplicated, and a validated case definition for SCD was applied.
- Identified persons had either a physician-confirmed or newborn screening-confirmed sickling hemoglobinopathy or  $\geq$ 3 unique SCD-coded claims within 5 years in the administrative data from 2004 to 2016.
- SCD-coded claims were based on the following SCD International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) codes: 282.41, 282.42, 282.6, 282.60-64, 282.68, and 282.69.
- This analysis focuses on 2014 to 2016. Medicaid eligibility and enrollment files provided the basis for determining ZIP code and county mobility.

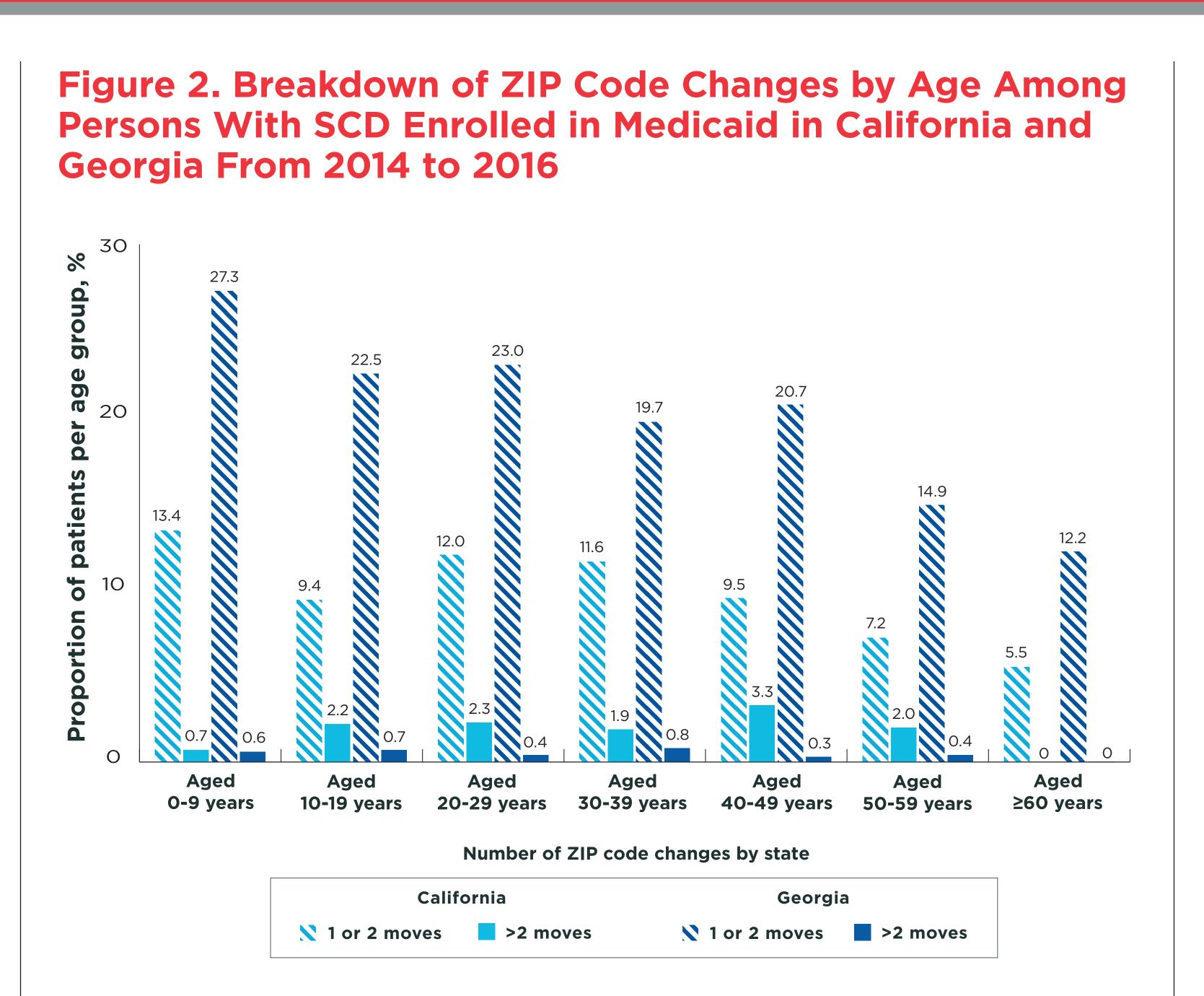
## RESULTS

- The California SCDC program identified 5124 persons with SCD living in the state from 2014 to 2016, and the Georgia SCDC program identified 9382 persons.
- Among those identified by the SCDC programs, 3555 (69.4%) in California and 6179 (65.9%) in Georgia were enrolled in Medicaid for 1 or more months.
- The mean duration of Medicaid enrollment was generally similar between age groups in California (range, 30.2-34.1 months) and in Georgia (range, 26.3-29.8 months) during the 3-year period (Figure 1).



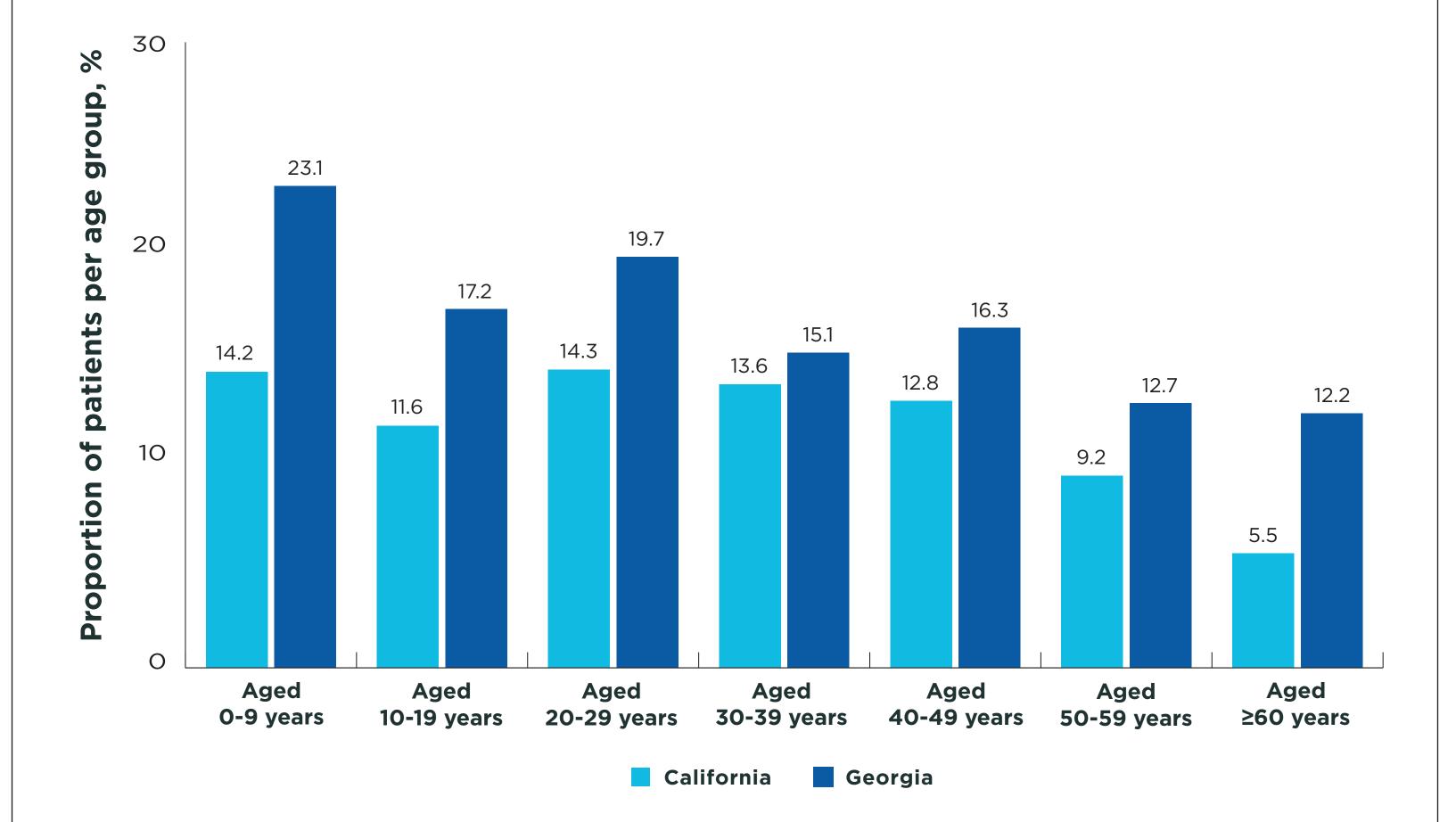
### Figure 1. Mean Duration of Medicaid Enrollment in California and Georgia From 2014 to 2016

- Of these persons enrolled in Medicaid, 382 (10.7%) had 1 or 2 ZIP code changes, and 71 (2.0%) had >2 ZIP code changes in California within the 2014 to 2016 period, corresponding to a mean of 0.91 ZIP code changes during the 3-year period. In Georgia, 1435 (23.2%) persons had 1 or 2 ZIP code changes, and 35 (0.6%) had >2 ZIP codes changes across the same period, contributing to a mean of 0.29 ZIP code changes.
- When stratified by age, the percentage of persons with 1 or 2 ZIP code changes generally decreased with increasing age across both states during the 3-year period (Figure 2).
- In California, greater proportions of those aged 10 to 59 years had >2 ZIP code changes compared with the other age groups. Whereas in Georgia, the proportions of persons with >2 ZIP code changes were similar across age groups and substantially lower than those in California for all age groups.



- A total of 453 (12.7%) persons in California and 1180 (19.1%) persons in Georgia moved across counties during the 3-year period, corresponding to a mean of 0.22 intercounty moves in both states.
- When stratified by age, those aged 29 years or younger generally had the largest proportion of persons with intercounty moves (Figure 3).

### Figure 3. Breakdown of Intercounty Moves by Age Among Persons With SCD Enrolled in Medicaid in California and Georgia From 2014 to 2016



## CONCLUSIONS

- The majority of Medicaid beneficiaries with SCD did not relocate beyond county boundaries over 3 years of follow-up, suggesting that frequent mobility may not be a primary concern for SCD service planning.
- While greater proportions of persons in Georgia were involved in moves across ZIP codes and counties, those who moved in California tended to move more frequently.
- This analysis did not consider changes in the distance from care.
- Further studies could address other factors that might affect healthcare access for Medicaid beneficiaries with SCD, such as housing insecurity, access to transportation, and providers' acceptance of patients who are Medicaid beneficiaries.

### References

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