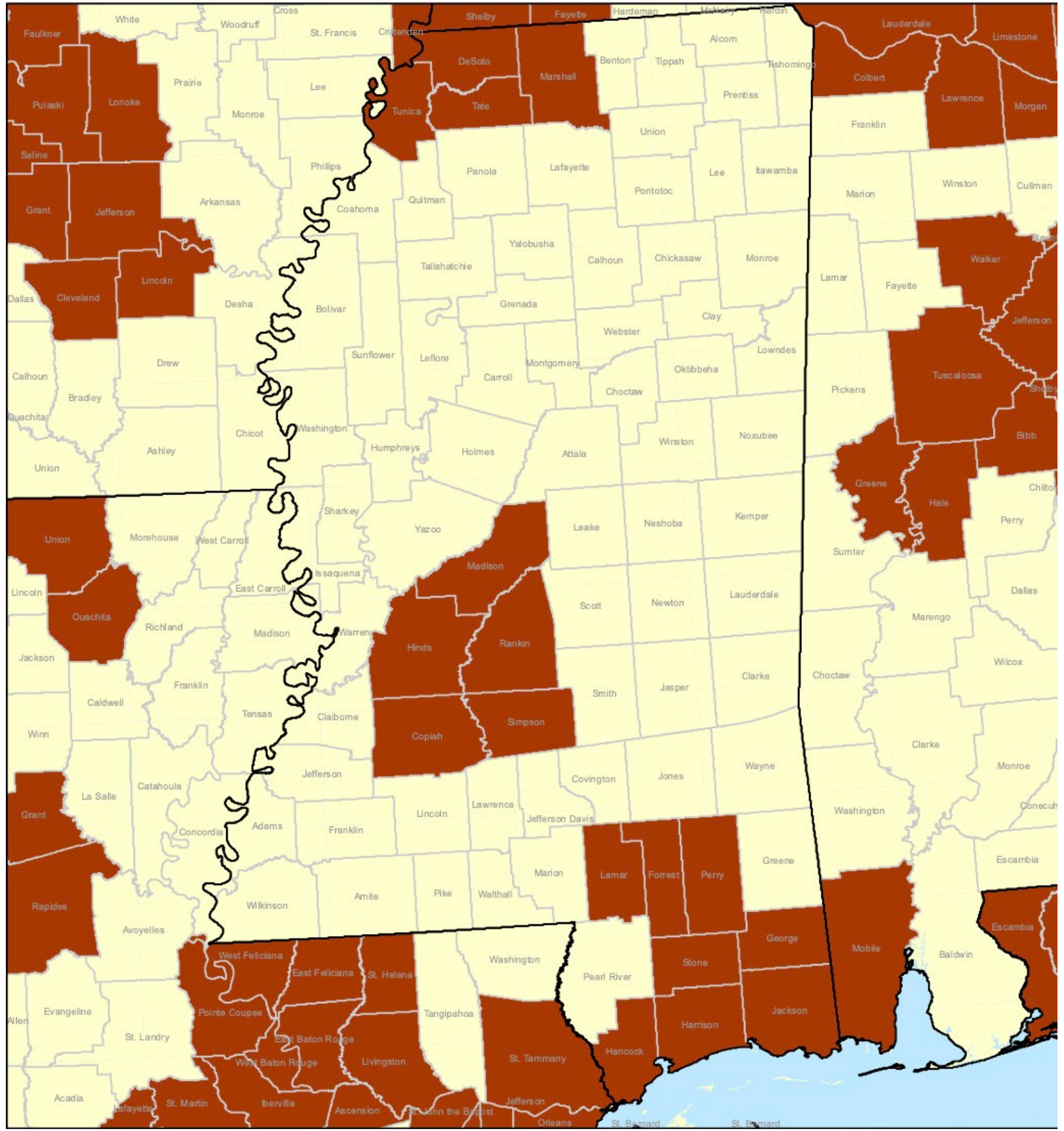


Limited Access to Specialty Care in Mississippi



Mississippi Demographics

Rural: Nonmetro county
 Urban: OMB metro county

- 18% of America's population live in rural areas. By comparison, over half (54%) of Mississippi lives in what is considered a rural or nonmetropolitan area.
- 65 of 82 counties in MS are considered rural.
- All MS counties are designated as either whole or partial-county Medically Underserved Areas.
- Access to specialists in rural areas is severely limited, **leading to more work for PCPs and staff, delayed care for patients, more ER use, and worse clinical outcomes.**

Implementation of TeleNeurology Program to Inpatient Population

UMMC collaborated with South Central Regional Medical Center in Laurel, MS, to implement a hybrid care model (in person + TeleNeurology) for rural Neurology inpatients.

Schematic of Inpatient Neurology Consults via Telehealth



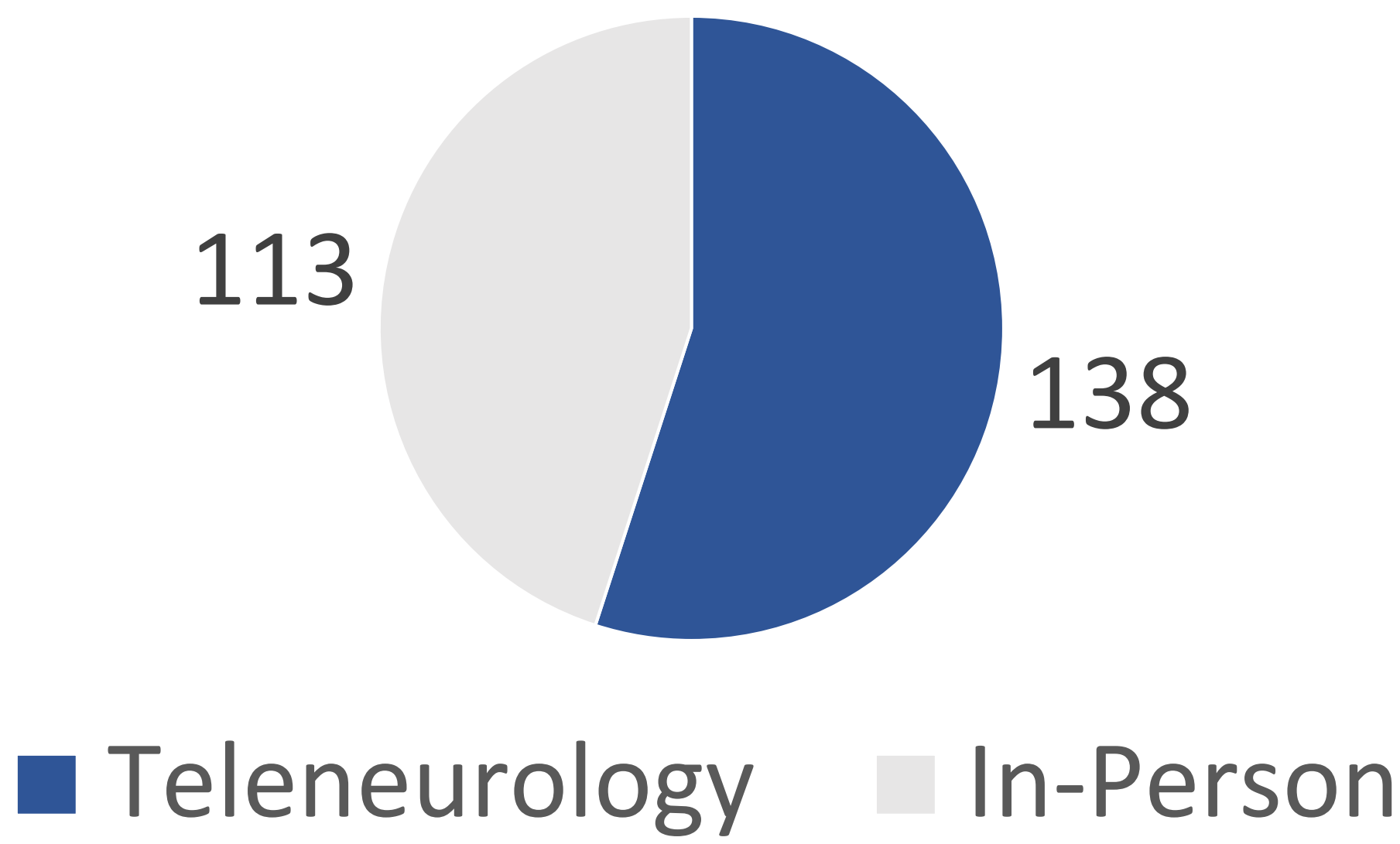
- Inpatient Neurology Service at South Central Regional Medical Center
- Rounding facilitated by NPs
- 10-15 days / month

- Remote Neurologist at UMMC
- Access to EMR
- Access to PACS
- Block schedule

METHODS AND OUTCOMES

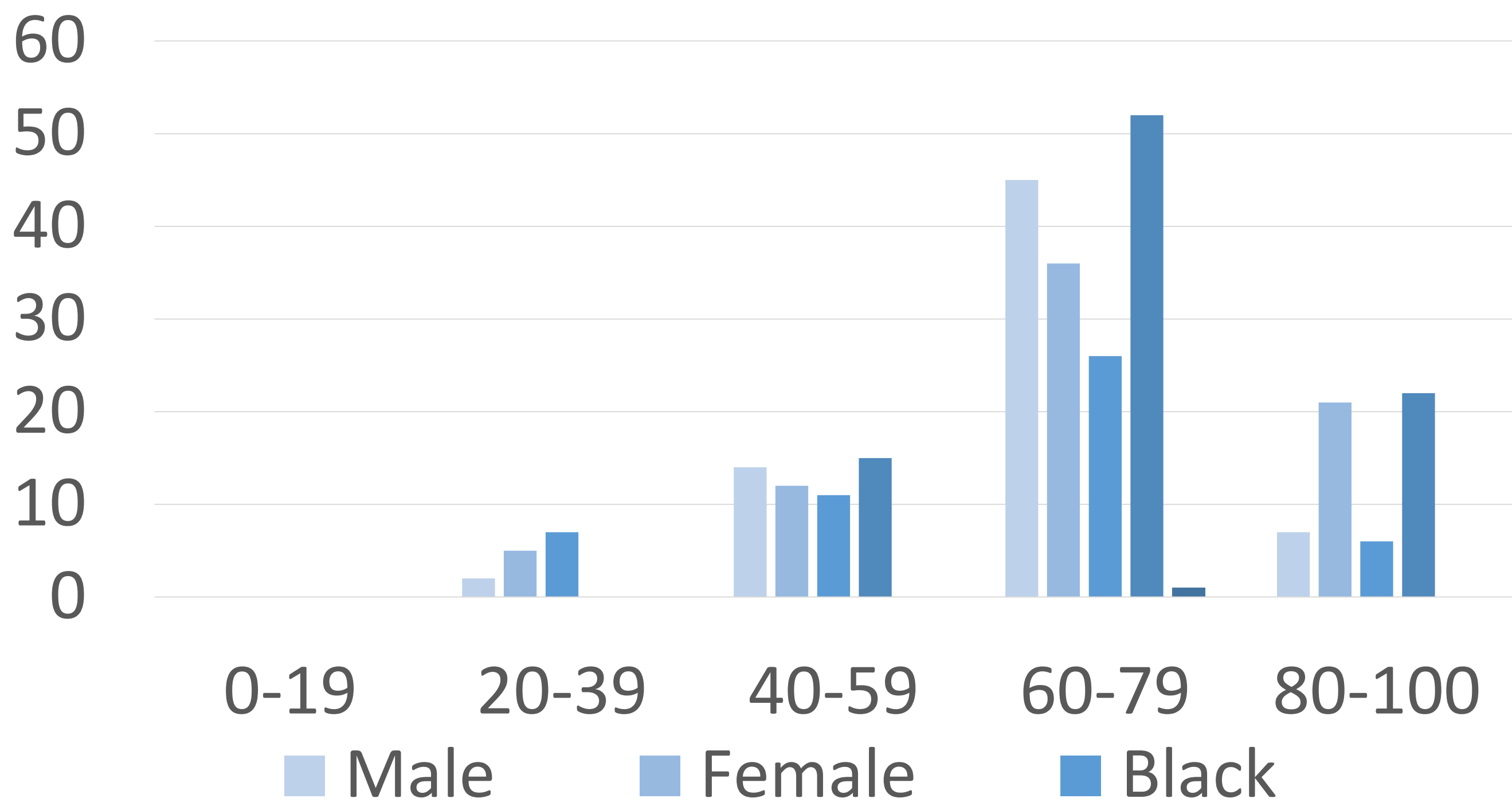
- Retrospective, observational, quality improvement study evaluating telehealth utilization among inpatient Neurology patients between January 18-June 30 of 2023.
- Equipment and support provided to SCRMC by UMMC's Department of Neurology and Telehealth Center of Excellence.
- Hybrid model consisted of 15 days of in-person neurology consults and follow up visits followed by 15 days of patient care by a remote TeleNeurology team.
- 1 neurologist was available for in-person care, while 8 neurologists participated as part of the remote TeleNeurology team.
- Data were collected on patient demographics, diagnoses, service types, and care utilizations.

Mode of consultation

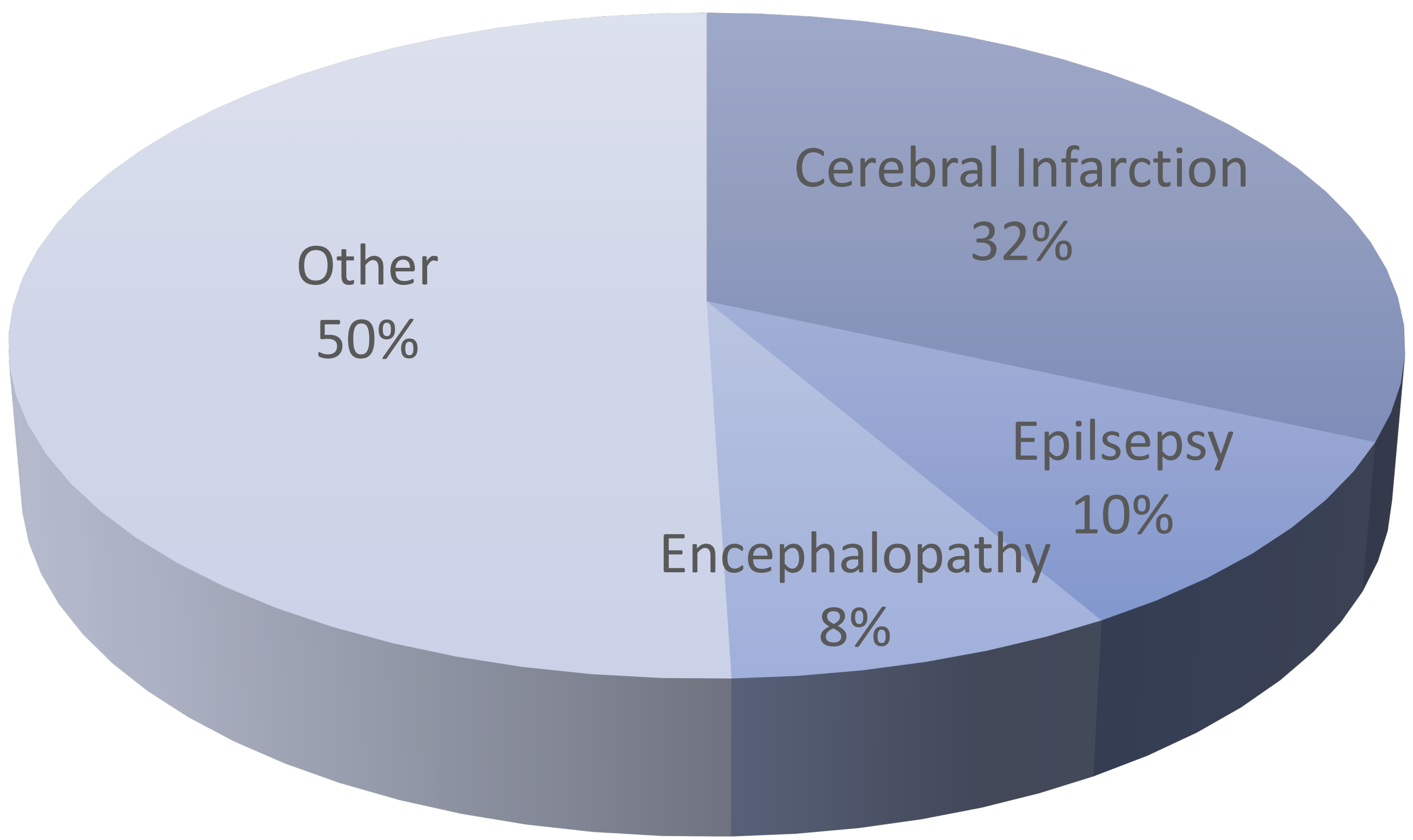


- 138 of 251 total patients seen exclusively through teleneurology team.
- 4 patients required transfer to higher level of care.
- Common diagnoses via telehealth: cerebral infarction (32%), epilepsy (10%), and encephalopathy (8%).
- 61% of teleneurology patients were discharged home with self-care or home health care.
- Other diagnoses included myocardial infarction, acute kidney injury, and sepsis, among others.

Patient Demographics



Patient Diagnosis Through Telehealth



DISCUSSION AND CONCLUSION

- It is feasible to implement TeleNeurology service in rural Mississippi.
- A hybrid model is feasible and helps with gap coverage where rural hospitals do not have personnel for 24x7 coverage.
- We can provide specialty care via telemedicine that the underserved population would otherwise not have.
- TeleNeurology services provide comparable diagnoses in rural and resource-limited settings.
- TeleNeurology service may reduce interfacility transfers for specialty care.
- Telehealth services can help bridge geographical gaps and ensure specialist care is accessible to individuals residing in underserved communities.