Carl Vinson
Institute of Government
UNIVERSITY OF GEORGIA

ERET Transportation Study: How people with mental illness are transported to and from emergency receiving, evaluation, and treatment facilities

A study conducted by the Carl Vinson Institute of Government for the Governor's Office of Health Strategy and Coordination

January 6, 2023

Purpose and Methodology

Purpose

The Governor's Office of Health Strategy and Coordination was directed in House Bill 1013 (lines 1347 to 1353) to conduct a study to understand the methods used to transport persons exhibiting mental illness to and from Emergency Receiving, Evaluation, and Treatment Centers (ERETs). The law specifically states:

"The office shall conduct a survey or study on the transport of individuals to and from emergency receiving, evaluation, and treatment facilities pursuant to Chapters 3 and 7 of Title 37. Such survey or study shall identify what method of transport is used in each county of the state, such as the sheriff, a law enforcement agency, a private nonemergency transport provider, or an ambulance service. Such survey or study shall be completed, compiled into a report, and provided to the General Assembly and the Governor no later than January 1, 2023." OCGA 31-53-3(d)(1)

The purpose of this report is to share the findings of this study conducted by researchers at the Carl Vinson Institute of Government for the Governor's Office of Health Strategy and Coordination.

Methodology

Researchers held focus groups with representatives from ERETs to understand the kinds of data being collected at intake and discharge about method of transport. From this initial research, it was determined that a custom data collection process would be needed to collect the data needed to answer the questions posed by HB 1013.

A sampling approach was developed where data was collected from participating ERETs over six weeks. For most of the ERETs, data collection began on August 29, 2022, but a few facilities asked to start a week later. Data collection lasted six weeks (42 days) in order to meet the statutory deadline for a final report. ERET representatives stated that this time period would be a reasonable representation for the types of transport across a year.

Each ERET in the study completed and submitted data sheets at intake and discharge and sent those data sheets to the research team weekly.

Understanding ERETs

What are Emergency Receiving, Evaluation, and Treatment Facilities (ERETs)?

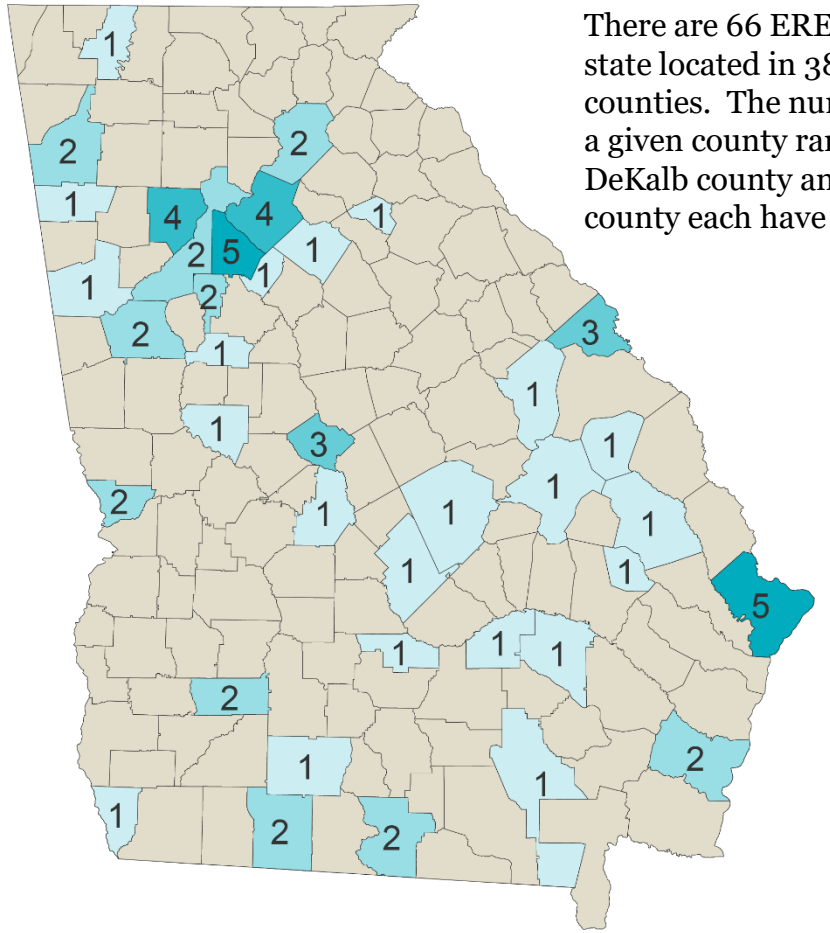
ERETs are licensed by DBHDD and provide a place for persons exhibiting mental illness to be evaluated, stabilized, and treated. Other than state hospitals, ERETs are community-based centers located in local hospitals, private behavioral health hospitals, crisis stabilization units (CSUs) or behavioral health crisis centers (BHCCs). Not all local hospitals are licensed ERETs.

To become a licensed and designated ERET, private facilities and CSUs must fill out an application on DBHDD forms.

A private facility must attest that it is compliant with the requirements pertaining to emergency receiving, evaluation, and treatment facilities set forth in State of Georgia Rules and Regulations for Hospitals (Georgia Comp. R. & Regs § 111-8-40-.37) and Guidelines for the Design and Construction of Hospitals and Healthcare Facilities. The private facility must submit its attestation of compliance annually.

To be designated an ERET, CSUs must be a part of a comprehensive community mental health and substance abuse program which has been certified by DBHDD.

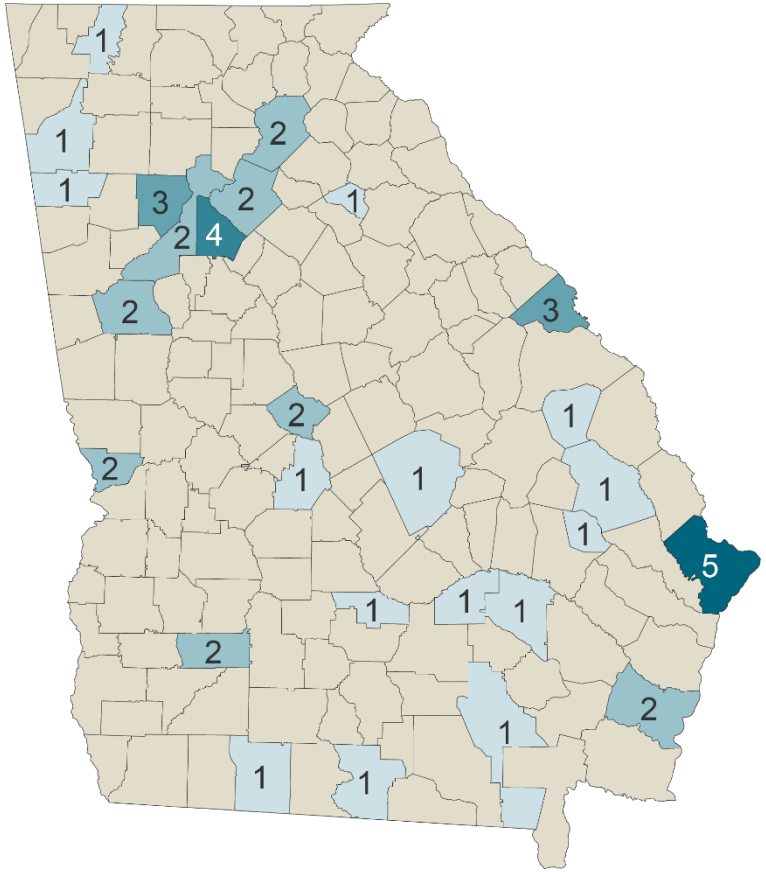
Many hospital emergency departments are not licensed as ERETs. For this reason, persons often are transported to the local emergency department and then transported to an ERET for evaluation and treatment.



There are 66 ERETs across the state located in 38 different counties. The number of ERETs in a given county ranges from 1 to 5. DeKalb county and Chatham county each have 5 ERETs.

ERETs Participating in the Study

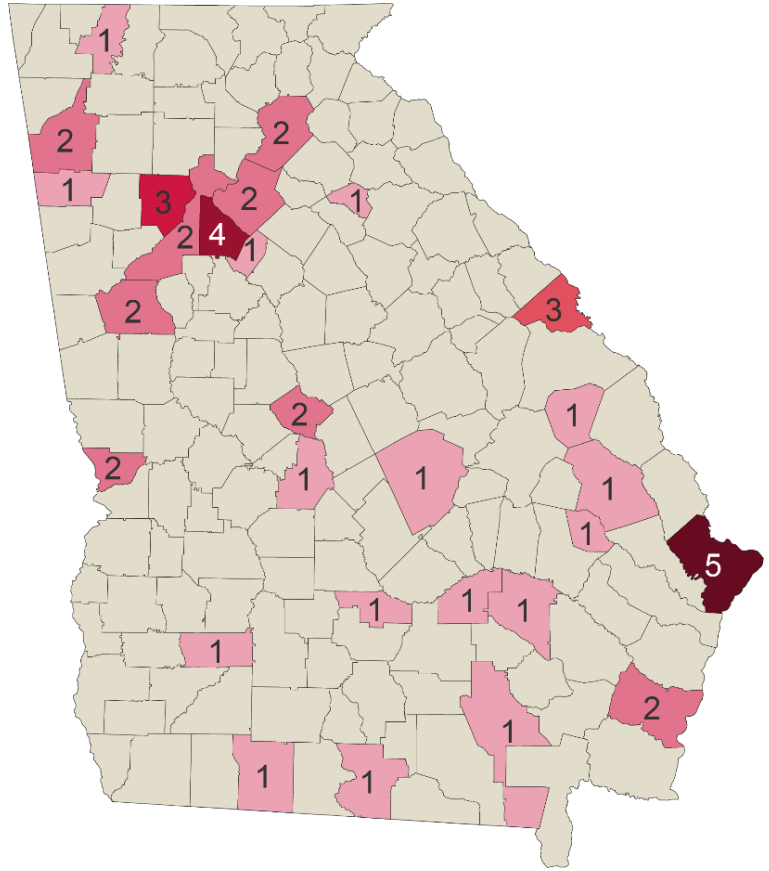
ERETs providing admissions data



A total of 48 ERET units either fully or partially participated in the study, a participation rate of 72.7% (66 total ERETs). Fully participating ERETs submitted six weeks of admission and discharge data for all the variables. Partial participation meant that less than six weeks of data was collected for either or both patient admissions and discharges or a data variable was only minimally collected or not collected at all.

Of the state's BHCCs and CSUs, 26 fully or partially completed the data instrument with a participation rate of 96.2% (27 total). Twenty-two (22) ERET hospital units either fully or partially completed the data instrument for a participation rate of 56.4% (39 total).

ERETs providing discharge data



Data Collection

Data was collected for 6 weeks from each participating ERET to understand how persons with mental illness are transported to and from the facility.

Six week sample:
6,759 intakes

County of Origin

Transport Method
- Sheriff
- Private Non-Emergency
- Ambulance
- Family/Friend/Self
- Other

Intake

48 of 66 ERETs participated

Hospitals
22 of 39

CSU/ BHCC
26 of 27

Discharge

Destination County

Transport Method
- Sheriff
- Private Non-Emergency
- Ambulance
- Family/Friend/ Self
- Other

Six week sample:
5,934 discharges

Data collected at intake:
- Date admitted
- Form of transportation that took the patient to the facility
- County where the trip originated
- Amount of time the patient had to wait to be admitted (less than 15 min., 15 min. < 1 hr., 1 < 2 hrs., and over 2 hrs.)
- Was the person an adult or minor?
- Was the person transported under a 1013 Order ?

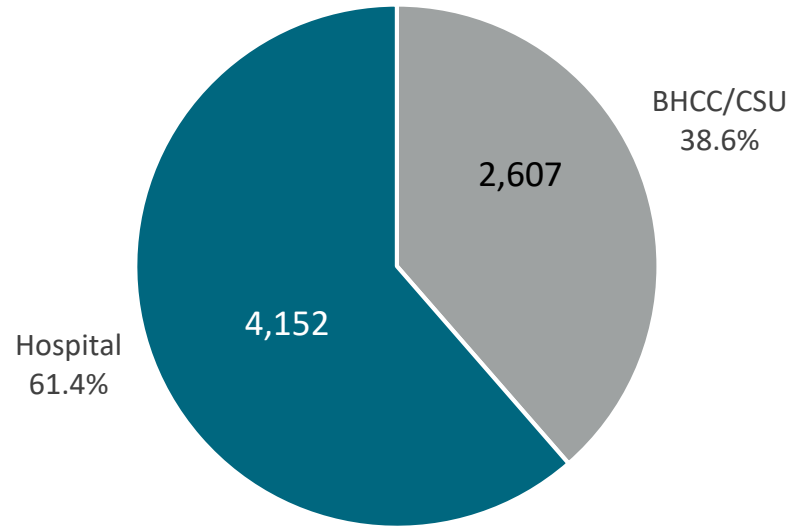
Note that trip origination is not a person's home address but the county where the person was transported from.

Data collected at discharge:
- Date of discharge from facility,
- Form of transport patient used to leave the facility
- What county the patient was going to when leaving the facility
- Length of stay at the facility (less than 3 hrs., 3 hrs. < 6 hrs., 6 hrs. < 12 hrs., 12 hrs. < 24 hrs., 24 < 48 hrs., and over 48 hrs.)
- Was the patient going to a state psychiatric hospital?
- Was the person an adult or a minor?
- Did the patient have a 1013 Order at discharge?

The goal of the study was to determine how persons were transported to and from ERETs. Therefore, the data may not reflect the same persons at intake and discharge during the six week data collection period.

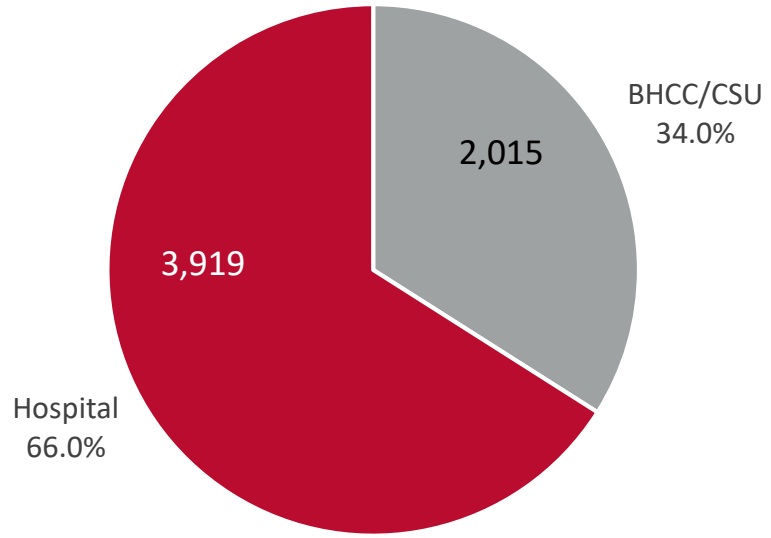
Admissions and Discharges by ERET Facility Type

Admission cases = 6,759



A total of 6,759 admission cases were collected as part of the six week data sample. Data from hospital ERETs accounted for 61.4% of the sample and admissions to BHCC/CSUs accounted for 38.6% of the sample.

Discharge cases = 5,934



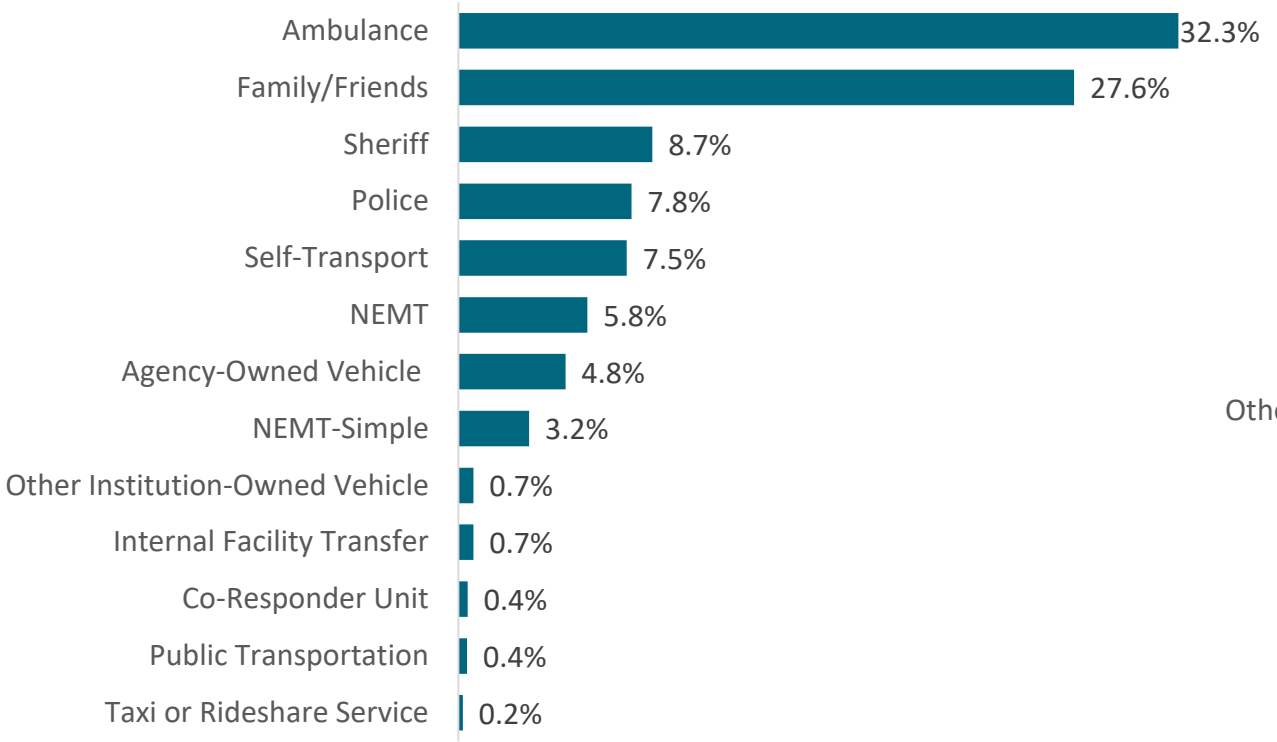
A total of 5,934 discharge cases were collected as part of the six week data sample. Data from hospital ERETs accounted for 66.0% of the sample and admissions to BHCC/CSUs accounted for 34.0% of the sample.

Missing data: 0 cases

Multiple methods of transport were used

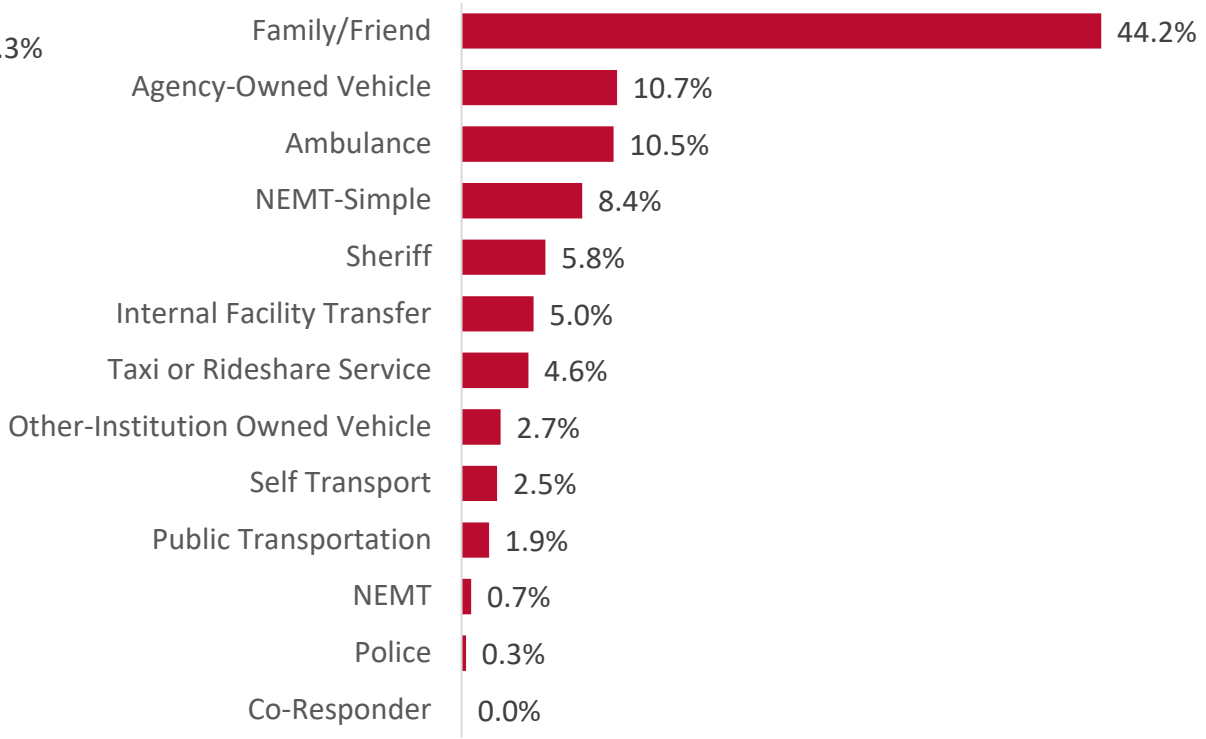
The data collected revealed that multiple methods of transport are used to transport people to and from ERETs. An ambulance (32.3%) was the most common method of transport to ERETs followed by family and friends (27.6%). Family and friends was the most common mode of transportation at discharge accounting for 44.2% of transports in the sample.

Admissions (n=6,730)



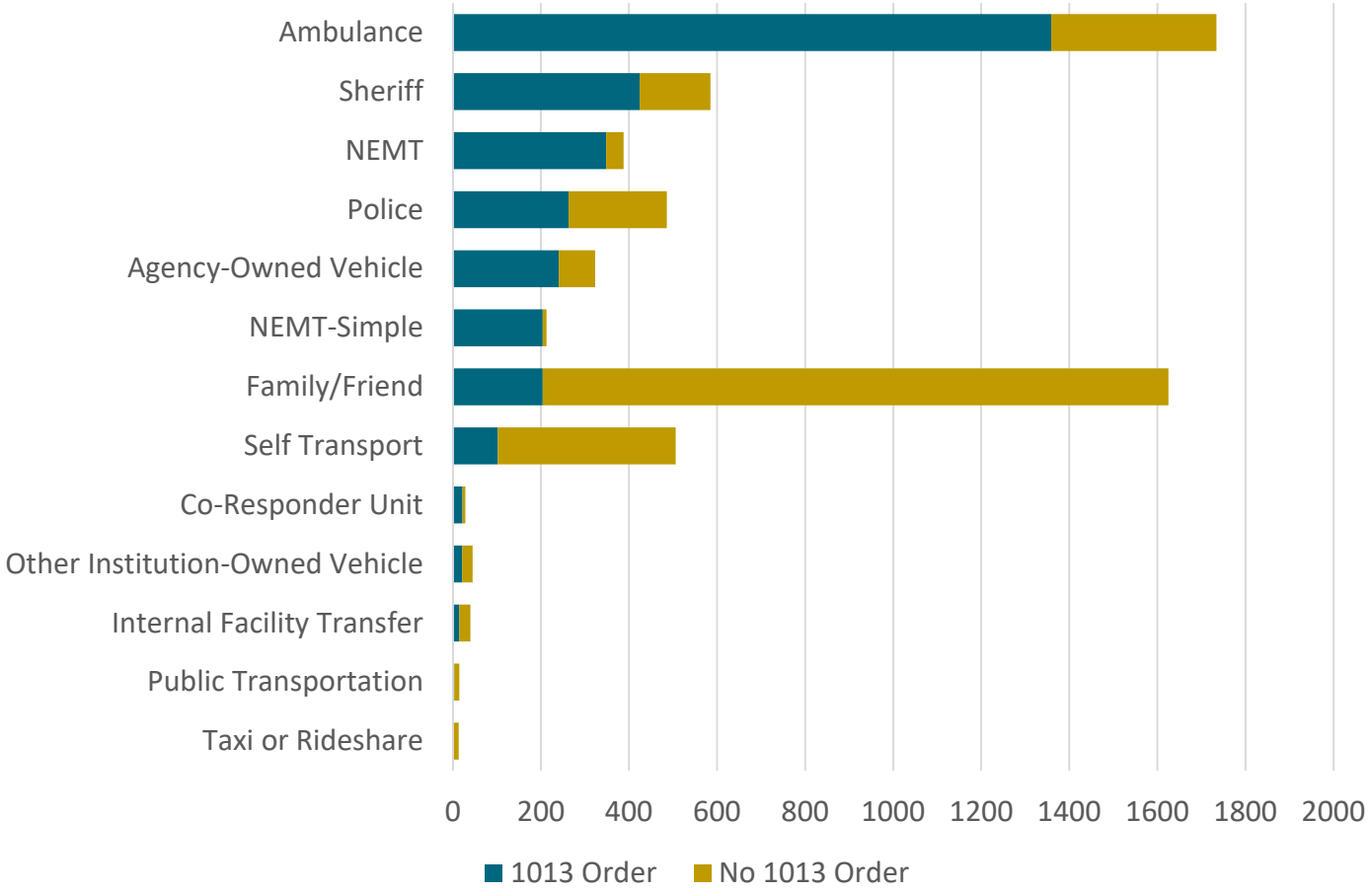
Note: 28 cases did not specify transport method at admission and excludes medical flights, as there was only one case

Discharge (n = 4,131)



Note: 1,803 cases did not specify transport method at discharge

1013 Orders at ERET Admission



ERETs reported that persons under 1013 orders were most commonly transported to ERETs by ambulances, non-emergency medical transport, or law enforcement.

For a person not under a 1013 order, a family member or friend was the most common method of transport to an ERET. Self transport or an ambulance were the second and third most common transport methods for persons not under a 1013 order.

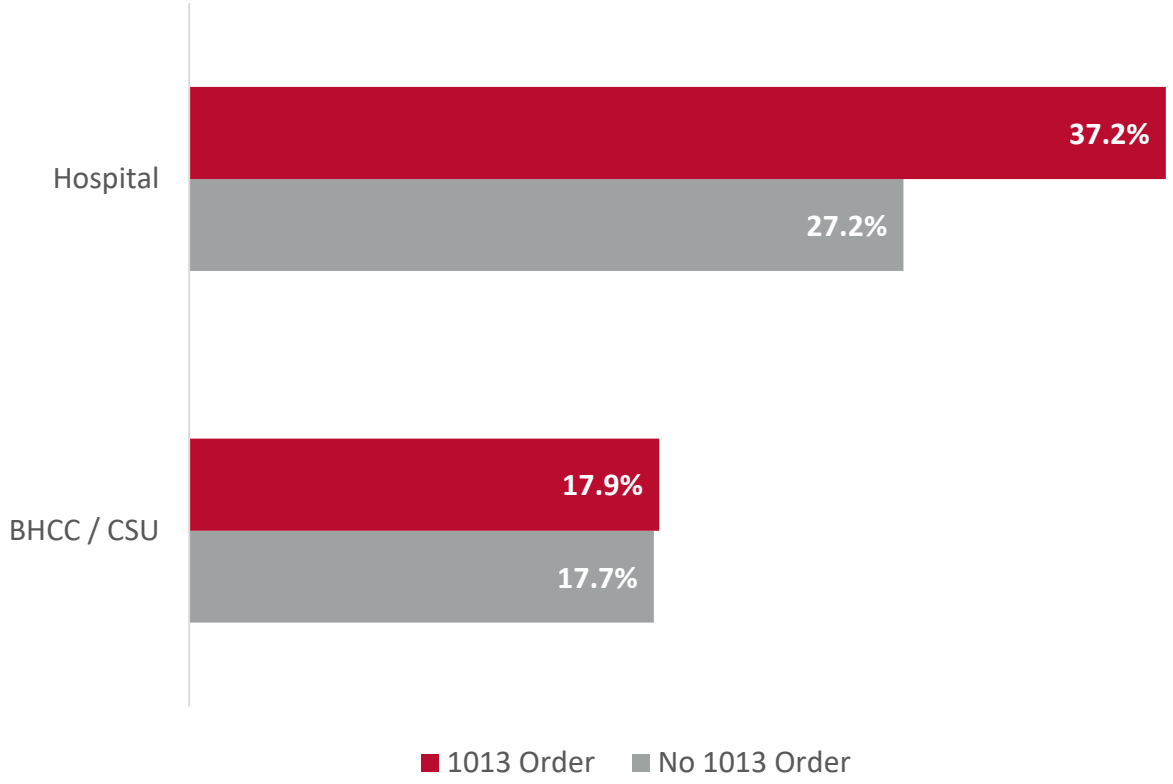
1013 Orders by ERET Facility Type

	1013 Order at Admission		
	No	Yes	Total
BHCC / CSU	22.0%	21.2%	43.2%
Hospital	24.7%	32.1%	56.8%
Total	46.7%	53.3%	100%

Patients admitted to a BHCC or CSU were almost as likely to arrive not under a 1013 order as with one (22.0% vs. 21.2%), while those in the sample being admitted to a hospital were more likely to have a 1013 order.

Total Number of cases: 6,759; missing data: 731 cases where 1013 order was not specified, 28 cases where the transportation type was not specified.

1013 Orders at Discharge



Slightly over half the patients had a 1013 order while at the ERET (55.1%). For those discharged from BHCCs/CSUs, about half had a 1013 order and half did not (17.9% versus 17.7% of all ERET patients) while more patients in hospitals had a 1013 order while staying at this type of facility.

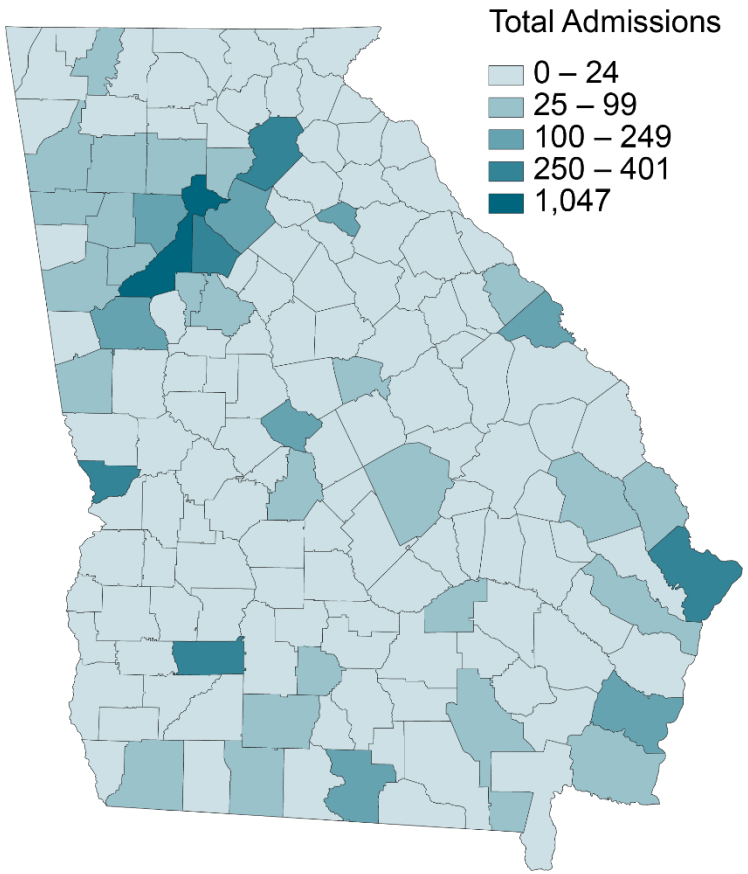
1013 Orders by ERET Facility Type at Discharge

	1013 Order at Discharge		
	No	Yes	Total
BHCC / CSU	17.7%	17.9%	35.6%
Hospital	27.2%	37.2%	64.4%
Total	44.9%	55.1%	100%

Missing data: 317 cases

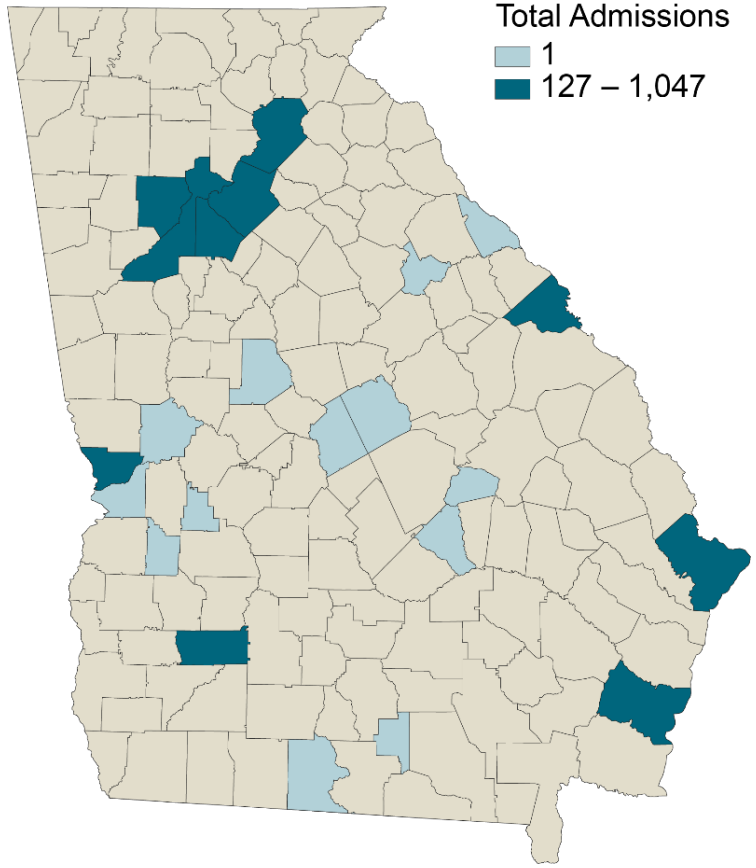
Admissions by County of Origin (Counts)

County of Origin of ERET Admissions in Sample



The sample includes admissions from 150 counties. Nine counties did not have any admissions to an ERET during the study period. More populated counties accounted for the most admissions. A sizeable difference exists among the ERETs in the number of admissions over the six week data collection period. Of the 46 ERETs in this dataset, Grady Hospital had the most admissions, at 15.9% of all admissions, and over one-fourth of the hospital admissions (26.7%). Thirteen counties had one admission during the six week sample period.

Counties with the Most and Least Admissions in the Sample



Admissions: Adults vs. Minors

Facility Type	Minor	Adult	Total Admissions	Minors	Adults
BHCC/CSU	415	2,135	2,550	33.0%	39.2%
Hospital	841	3,308	4,149	67.0%	60.8%
Total	1,256	5,443	6,699	100%	100%

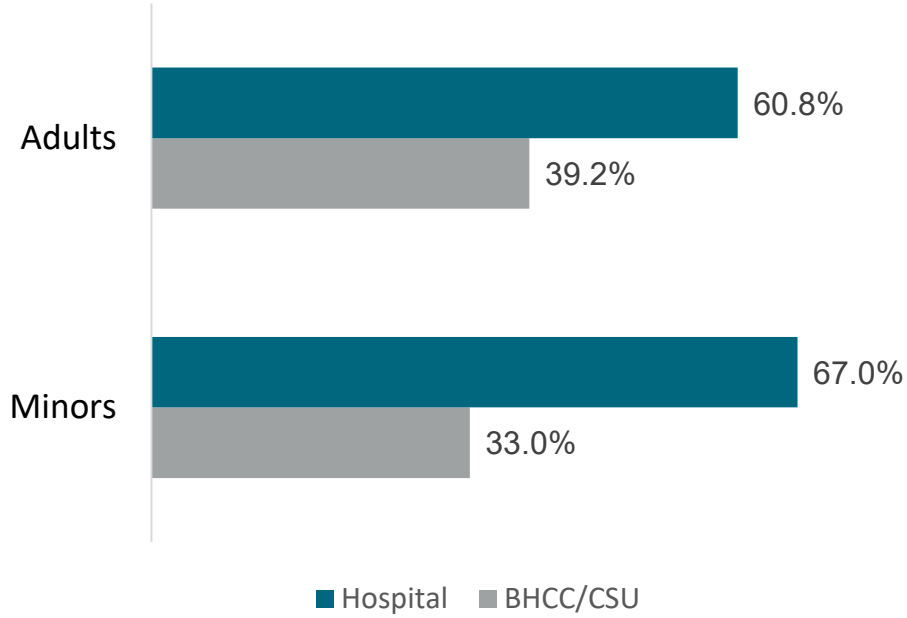
Missing cases: 60

The six week sample of ERET admissions had a much higher proportion of adults (81.3%, n = 5,443) than minors (18.7%, n = 1,256).

Of the 1,256 minors in the sample, 67.0% were admitted to hospitals and 33.0% to BHCCs/CSUs. The high proportion of minors being admitted to hospitals reflects the higher capacity of these ERETs to serve minors either through specialized longer-term treatment or by admission at emergency departments. Adults were somewhat more likely to be admitted to a hospital (60.8%) than to BHCC/CSUs (39.2%).

80% of admissions were adults

39.2% adult admissions were at a BHCC/CSU and 60.8% of adult admissions were at hospitals.

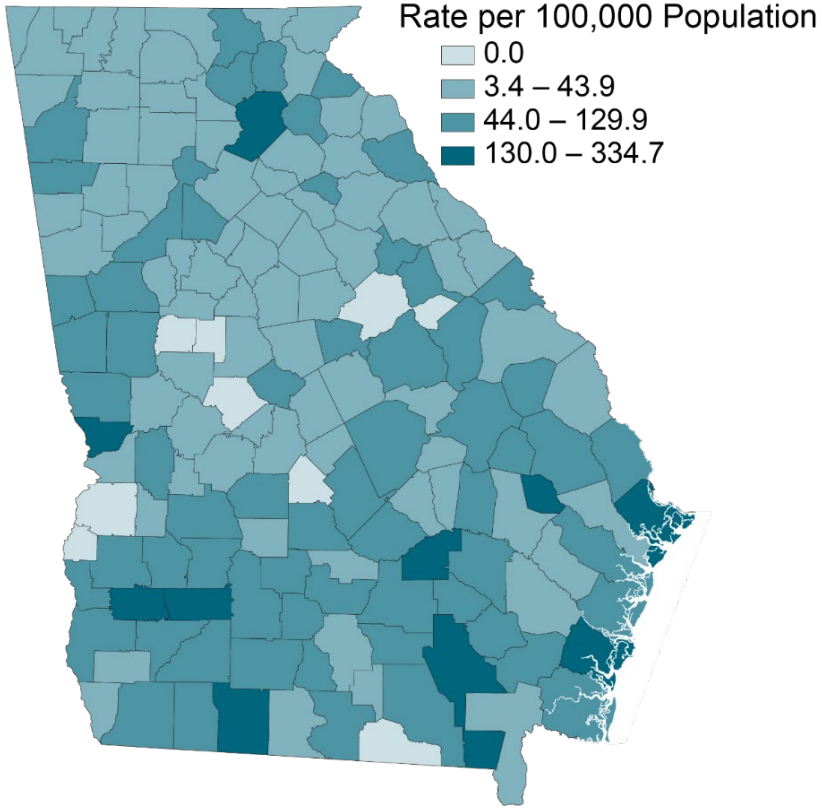


ERET Admissions Per Capita

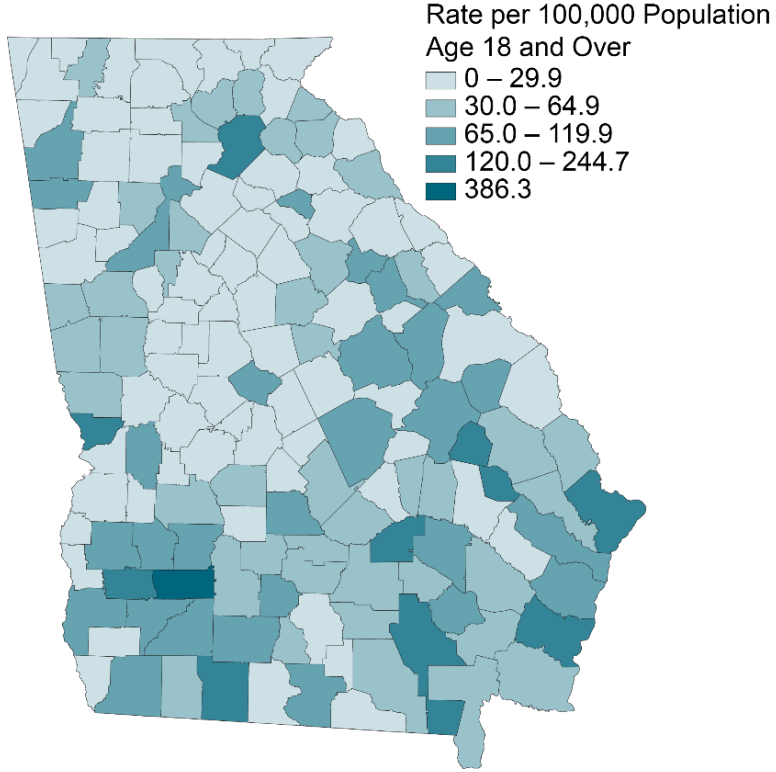
On a per capita basis, 10 counties outside metro Atlanta had a much higher share of admissions compared to metro Atlanta counties.

Counties in north and central Georgia had a lower adult admission rate per capita, while more counties in the south have high rates. The pattern for minors is less concentrated in any one part of the state, although the 2 counties with the highest rates are located in south Georgia.

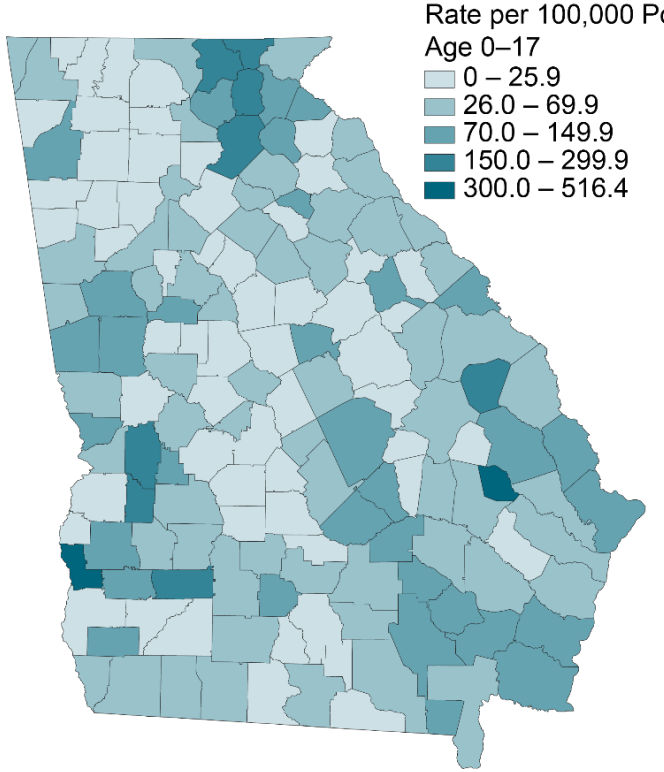
Admissions Rate: All Ages



Admissions Rate: Adults



Admissions Rate: Minors

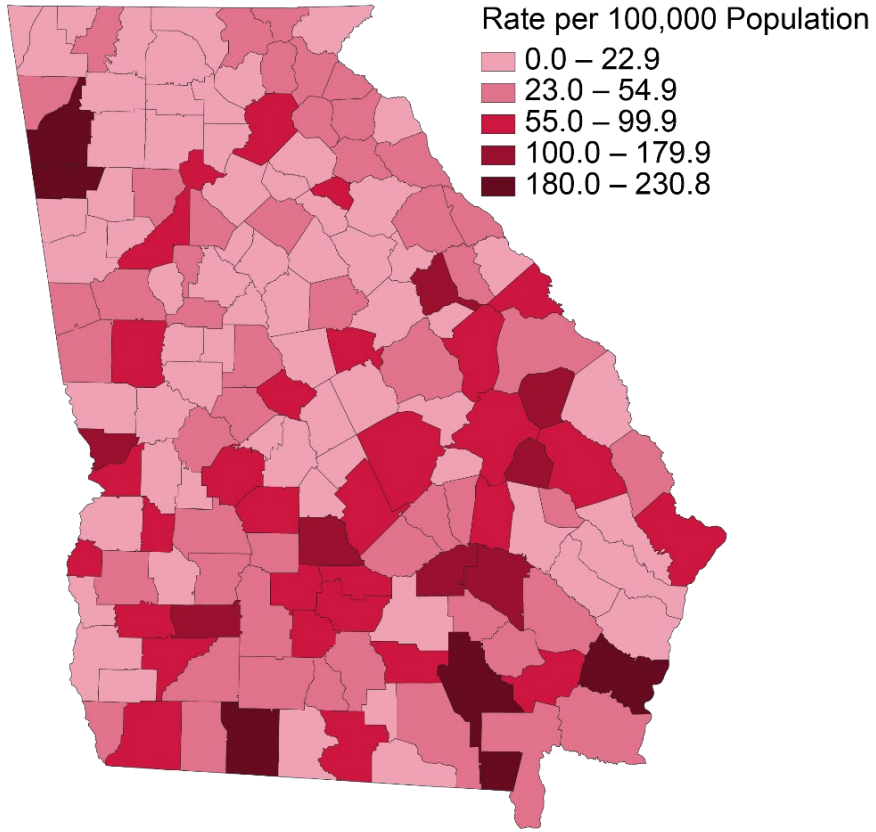


Discharge Destinations Per Capita

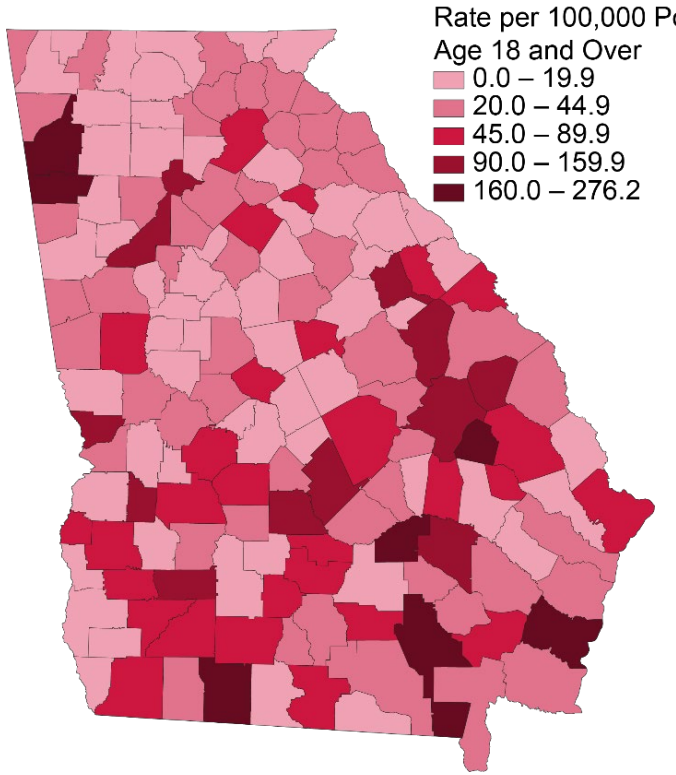
On a per capita basis. 5 counties outside metro Atlanta had a much higher share of discharge destination counties compared to metro Atlanta counties.

The pattern of discharges for adults is similar to the pattern for all ages, because most of the discharged patients in the dataset were adults: 82.1% adults compared to 17.9% minors. The discharge rates for minors is highest outside the metro Atlanta area.

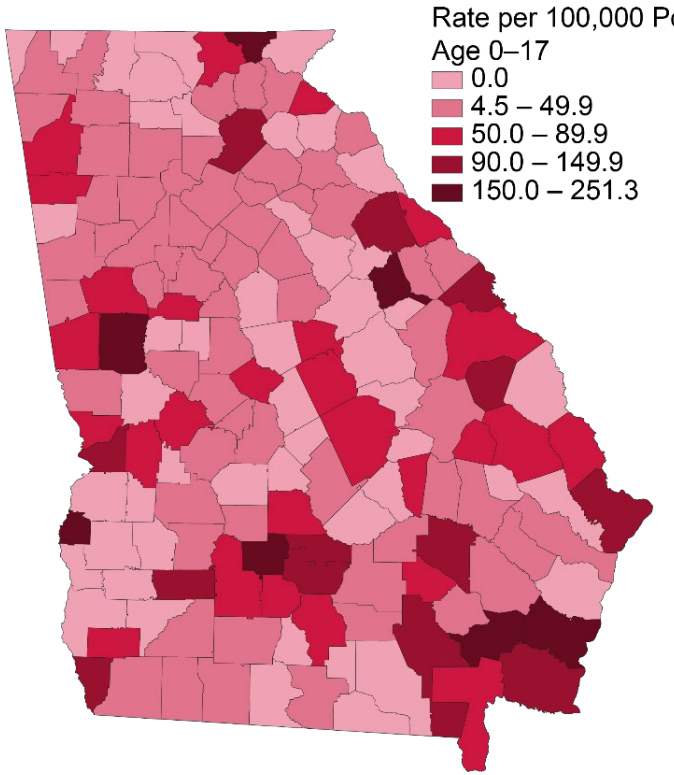
Discharge Rate: All Ages



Discharge Rate: Adults



Discharge Rate: Minors



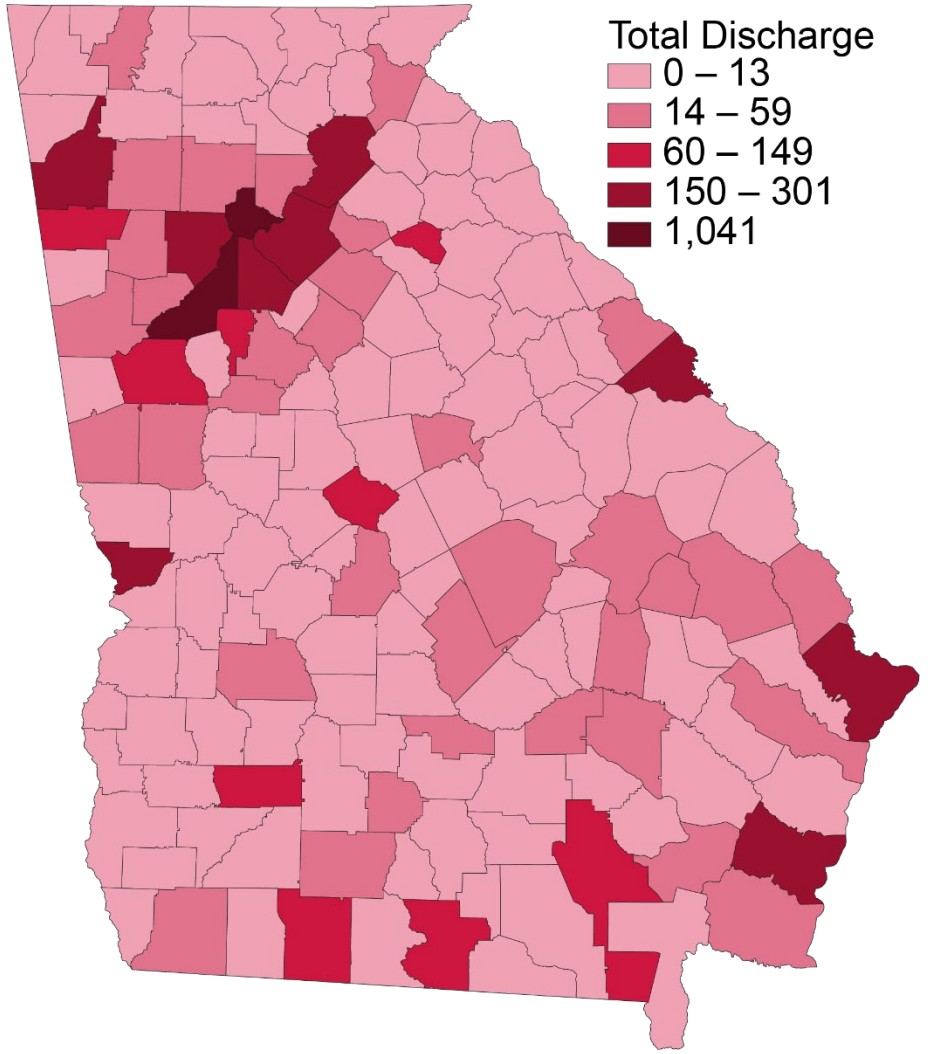
Discharge Destinations

At discharge, patients were transported to 149 counties across the state with 32.9% going to counties within the Atlanta Metropolitan Area. The most frequent destination for discharged patients was Fulton County with 20.4% of in-state transports.

An additional 30 patients travelled out of state at discharge. These included cases recorded as: Alabama (9), Florida (2), North Carolina (1), Out-of-State (7), South Carolina (8), and Tennessee (3).

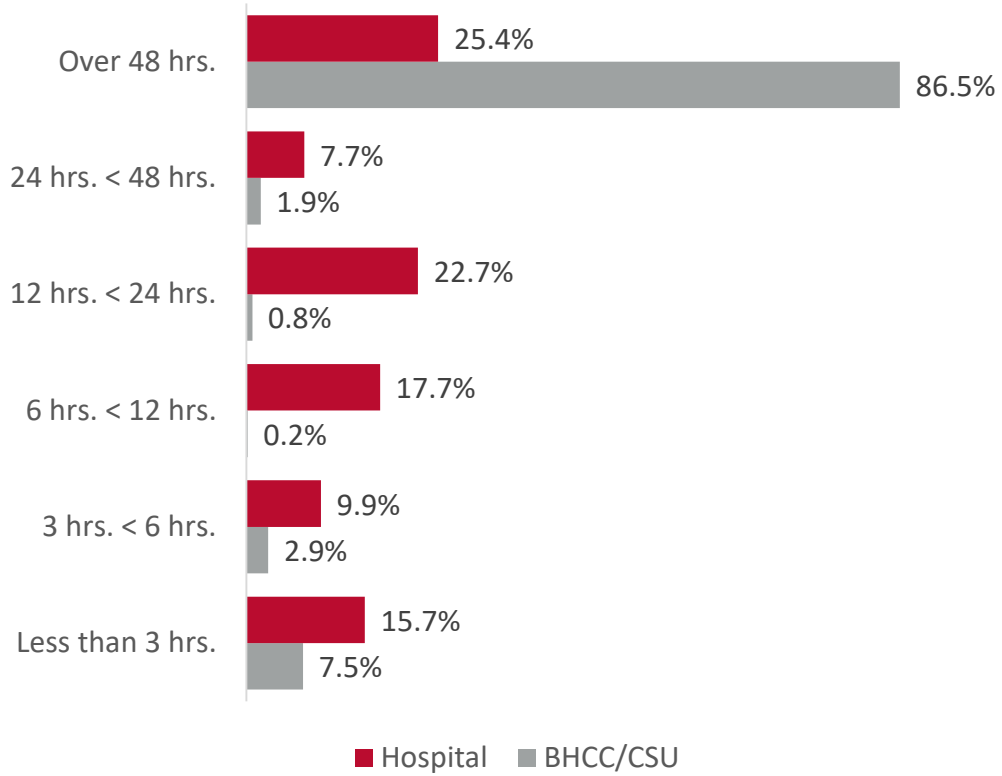
149 Destination counties at discharge

20.4% of discharges when to Fulton County



Missing data: 803 cases. Neither Wellstar Atlanta Medical Center Emergency Department nor Wellstar Cobb Hospital Emergency Department collected data on where patients were discharged, substantially reducing the number of cases to report.

Length of Stay: ERET Facility Type



The most common length of stay for BHCC/CSUs is over 48 hours. For hospitals it is a mix with 25% of says being over 48 hours and 22.7% being between 12 and 24 hours.

Missing data: 37 cases

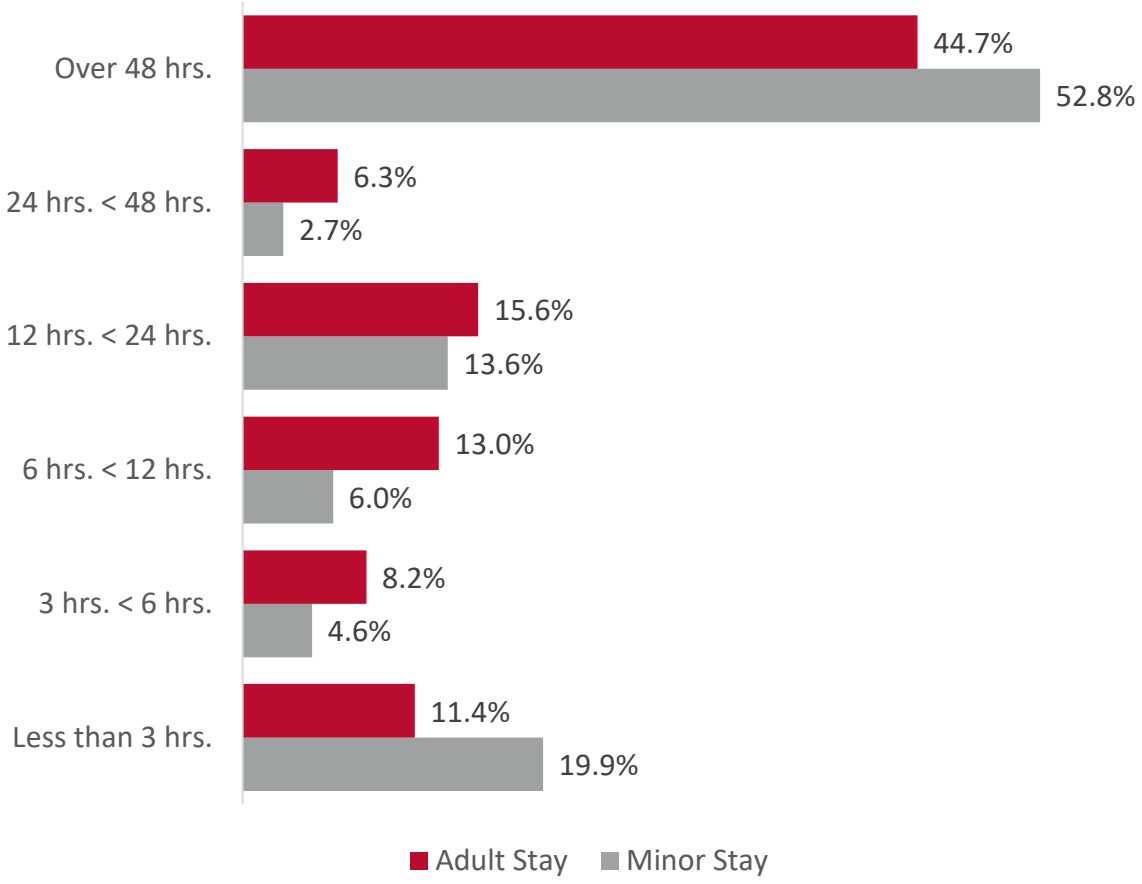
BHCCs/CSUs were far more likely to have patients stay over 48 hours at their facilities than were hospitals.

The reported shorter stays from hospitals demonstrates the goals of emergency departments to quickly evaluate and stabilize patients so they can be discharged from the hospital or transferred to an in-patient behavioral health unit.

For the patients in the sample being discharged, nearly half (46.4%) stayed at an ERET over 48 hours. The high percentage of longer visits reflects the lack of non-ERET general hospital emergency departments in the dataset. There would likely be a much higher proportion of short-term stays (i.e., less than 24 hours) if these facilities were included in the analysis.

	Facility Type				
Length of Stay	BHCC/CSU	Hospital	Total Discharges	% BHCC/CSU	% Hospital
Less than 3 hrs.	151	616	767	7.5%	15.7%
3 hrs. < 6 hrs.	59	389	448	2.9%	9.9%
6 hrs. < 12 hrs.	4	695	699	0.2%	17.7%
12 hrs. < 24 hrs.	17	888	905	0.8%	22.7%
24 hrs. < 48 hrs.	39	300	339	1.9%	7.7%
Over 48 hrs.	1,743	996	2,739	86.5%	25.4%
Missing cases	2	35	37	0.1%	0.9%
Grand Total	2,015	3,919	5,934	100.0%	100.0%

Length of Stay: Minors vs. Adults



Missing data: 37 cases

More than 40% of minors and adults stay at an ERET more than 48 hours.

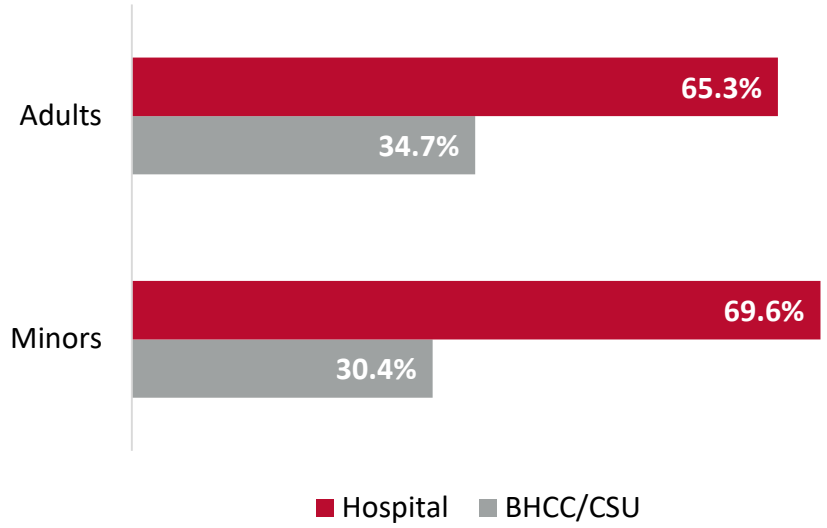
Length of stay	Blank	Minor	Adult	Total	Minor Stay	Adult Stay
Less than 3 hrs.		211	556	767	19.9%	11.4%
3 hrs. < 6 hrs.		49	399	448	4.6%	8.2%
6 hrs. < 12 hrs.		64	635	699	6.0%	13.0%
12 hrs. < 24 hrs.		144	761	905	13.6%	15.6%
24 hrs. < 48 hrs.	2	29	308	339	2.7%	6.3%
Over 48 hrs.		561	2,178	2,739	52.8%	44.7%
Blank	1	4	32	37	0.4%	0.7%
Grand Total	3	1,062	4,869	5,934	100.0%	100.0%

The length of stay for minors is a mix of less than 3 hours, 12 to 24 hours, and just over half of the cases staying longer than 48 hours. The length of stay for adults is more distributed across each of the time periods with 44.7% of adults staying over 48 hours.

Discharge: Adults vs. Minors

Adults		Minors	
Hospitals	BHCCs/CSUs	Hospitals	BHCCs/CSUs
65.3%	34.7%	69.6%	30.4%

Knowing whether patients being discharged are adults (18 years and older) or minors can help ERETs and policymakers more fully understand potential transportation needs for these two groups. Of all the patients being discharged in the dataset, 82.1% were adults and 17.9% were minors. Adults and minors were discharged from hospitals and BHCCs/CSUs at approximately the same rate. The fact that far more adults and minors were discharged from hospitals than BHCCs/CSUs reflects the hospitals' higher in-patient capacity.



Missing data: 3 cases

Admissions: Cost of Transport

Transportation Method	6-Week Aggregate Cost	Average Cost per Trip
Ambulance	$2,074,556	$1,188.86
Agency-Owned Vehicle[1]	$6,979	$20.68
Co-Responder	$570	$20.37
Nonemergency Medical Transport	$153,446	$385.54
Nonemergency Medical Transport-Simple	$69,749	$333.72
Other-Institution Owned Vehicle	$933	$21.21
Police	$15,050	$31.03
Public Transportation	$38	$2.50
Sheriff	$31,238	$53.40
Taxi/Rideshare	$400	$30.74

An important goal with the research was to better understand the cost of transporting persons in crisis to ERETs. This report includes aggregated cost estimates by type of transport. The cost estimates are based on the distance from the county of trip origin (or destination) to (from) the ERET facility multiplied by the cost per mile and/or per hour of the type of transport. Because the exact address of the pick-up or drop-off location was unknown, a county's geographic center was deemed the most reasonable place from which to measure.

The cost data for admissions indicate that reliance on ambulances can lead to high transportation costs relative to other methods. This method was by far the most expensive in total cost and on an average per trip basis. NEMT and NEMT-simple were the next most expensive transport methods in aggregate and on a per trip basis but were still only a third of the per trip cost of an ambulance. Even though NEMT-simple has a fairly low per mile cost when compared to the other methods of transport, its per trip average was nearly $334 due to approximately half of its trips exceeding 100 miles. Similarly, sheriff transports were more expensive than police transports, because the former included several very long trips. Fifty-two were at least 100 miles.

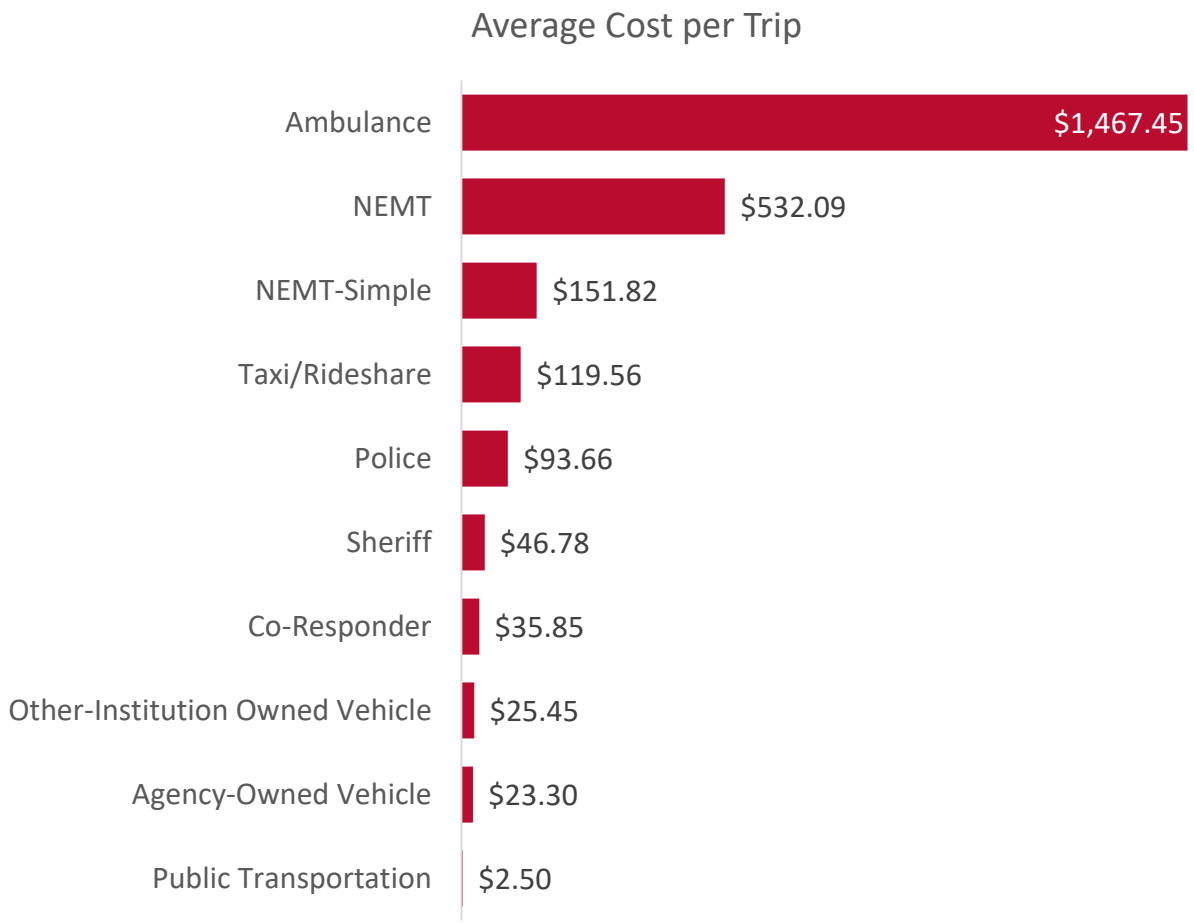
Nonemergency Medical Transport includes one driver with crisis intervention training and first aid, equipment, and the cost of the vehicle with specially installed equipment such as plexiglass between the driver and the passenger, and the company being accredited. Nonemergency Medical Transport – Simple would be similar to a small bus and have a wheelchair ramp installed. While the driver would likely have some first aid training, there is no expectation that the person be an EMT or have specialized mental health crisis training.

This table combines cost data for three agency-related forms of transport: agency-owned vehicle, Department of Human Services contracted transport, and employee vehicle.

Discharge: Cost of Transport

The discharge cost estimates show ambulances as the most expensive on an average per trip basis. NEMT was the second most costly transport method on average per trip basis. NEMT was over three times more expensive than NEMT-simple on an average per trip basis. The taxi/rideshare per trip cost estimate was relatively high due to dozens of trips exceeding hundreds of miles.

Transportation Method	6-Week Aggregate Cost	Average Cost per Trip
Ambulance	$626,600	$1,467.45
Agency-Owned Vehicle	$12,630	$23.30
Co-Responder	$36	$35.85
Nonemergency Medical Transport	$18,623	$532.09
Nonemergency Medical Transport-Simple	$52,379	$151.82
Other-Institution Owned Vehicle	$2,775	$25.45
Police	$1,124	$93.66
Public Transportation	$193	$2.50
Sheriff	$11,226	$46.78
Taxi/Rideshare	$22,357	$119.56



This table combines cost data for three agency-related forms of transport: agency-owned vehicle, Department of Human Services contracted transport, and employee vehicle.

Transport in Other States

- Part II of the report is a scan of transportation policies of nine southeastern states regarding mental health transportation.
- Case studies on innovative programs in Tennessee and Virginia highlight two different approaches states have taken to try and address the cost and burden of transporting persons with mental illness who are in crisis.
- Tennessee offers a grant program to fund sheriffs to do transports with certain rules and reporting requirements.
- Virginia developed a strategy to shift transports of non-violent patients to nonemergency medical transport (NEMT) through a statewide contract with an NEMT provider.

Bed Coordination

- Part III examines the challenge of coordinating persons in crisis who need inpatient residential treatment in a state-supported ERET with the availability of beds to serve that individual (i.e., bed coordination) and considers options to improve the process over the long term.
- Currently only state-funded beds are part of the GCAL bed coordination system.
- Priority for state-funded beds is given to persons in crisis without their own payer source. More coordination and communication between GCAL and its stakeholders may help address common challenges. If there were a central clearinghouse of all available ERET beds (public and private) it could make it easier on sheriffs and ERET staff looking for an available bed.
- The data in Part I of the report indicate that about seven percent of admission trips are over 150 miles. In these rare cases, having an assurance that a bed is available when the ambulance or sheriff arrives would reduce frustration.
- Law enforcement benefits from general awareness of how the ERET system works and how to utilize the services at GCAL in responding and assisting a person having a mental health crisis.

Observations

1. This scope of this study was defined by HB 1013 to investigate how persons experiencing a mental health crisis are transported to and from ERETs. Therefore, transport data to emergency departments that are not licensed as ERETs was not collected. A future study that would include a full assessment of mental health crisis transportation to healthcare facilities regardless of ERET classification would address these limitations.
2. Multiple methods are used to transport people to and from ERETs. Ambulances, friends and family, law enforcement, and agency vehicles are the most common methods of transport to and from ERETs. For minors, family and friends played a critical role in transport.
3. Ambulances are the most frequent form of transport at admission and also the most expensive.
4. There are similar numbers of both 1013 and non-1013 persons at intake.
5. People stay longer to stabilize at CSUs and BHCCs (as expected).
6. GCAL could enhance its communication and outreach efforts to local law enforcement and transport providers across the state to increase awareness of GCAL's Bed Registry and Bed Board. Also, GCAL may want to also explore working with the Peace Officer Standards and Training Council or the Georgia Public Safety Training Center to inform new officers about the bed registry.

Research Notes and Data Limitations

1. The limited 6-week sample has good statewide representation and ERET participation.
2. Data collection was limited to ERETs. Future studies on mental health transport should include all emergency departments and hospitals, not just ERETs.
3. This study confirmed that transport data is not collected as part of the current intake or discharge processes. Building data reporting processes of key elements into routine business practices (payment and state reporting processes) would provide longitudinal information for future studies and assist decision makers.

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