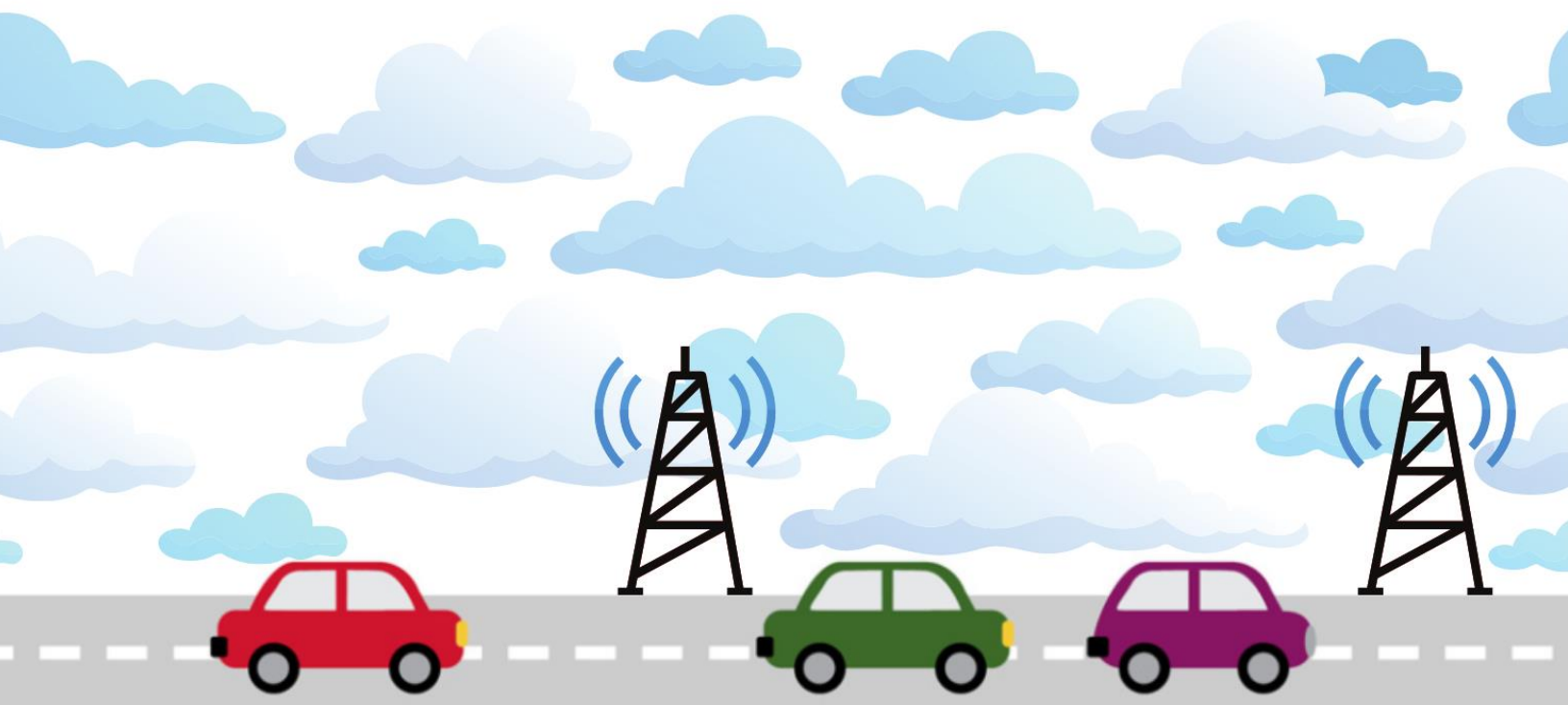


**Telemedicine and broadband  
internet access:  
A tool, not a cure to  
transportation-related  
barriers to care**



## **Telemedicine and broadband internet access:**

### **A tool, not a cure to transportation-related barriers to care**

A supplement to *Health Transportation Shortages: A Barrier to Health Care for Georgians*

By Georgians for a Healthy Future and The Arc Georgia

Contributing authors: Whitney Griggs, MPH and Charla Sutton, MPH

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#### **As part of the Georgians in the Driver's Seat initiative**

The Georgians in the Driver's Seat initiative, launched as a collaboration of Georgians for a Healthy Future and The Arc Georgia, aims to ensure transportation is eliminated as a barrier to health care for all Georgians. The project focuses on people with disabilities.

# CONTENTS

- 2 The expansion of telemedicine during the COVID-19 pandemic**
- 3 Broadband internet access as a barrier to health care**
- 4 Exploring the intersection of health transportation and internet access**
- 4 Results**
- 5 Recommendations**
- 6 Conclusion**
- 8 Appendices**



## **The expansion of telemedicine during the COVID-19 pandemic**

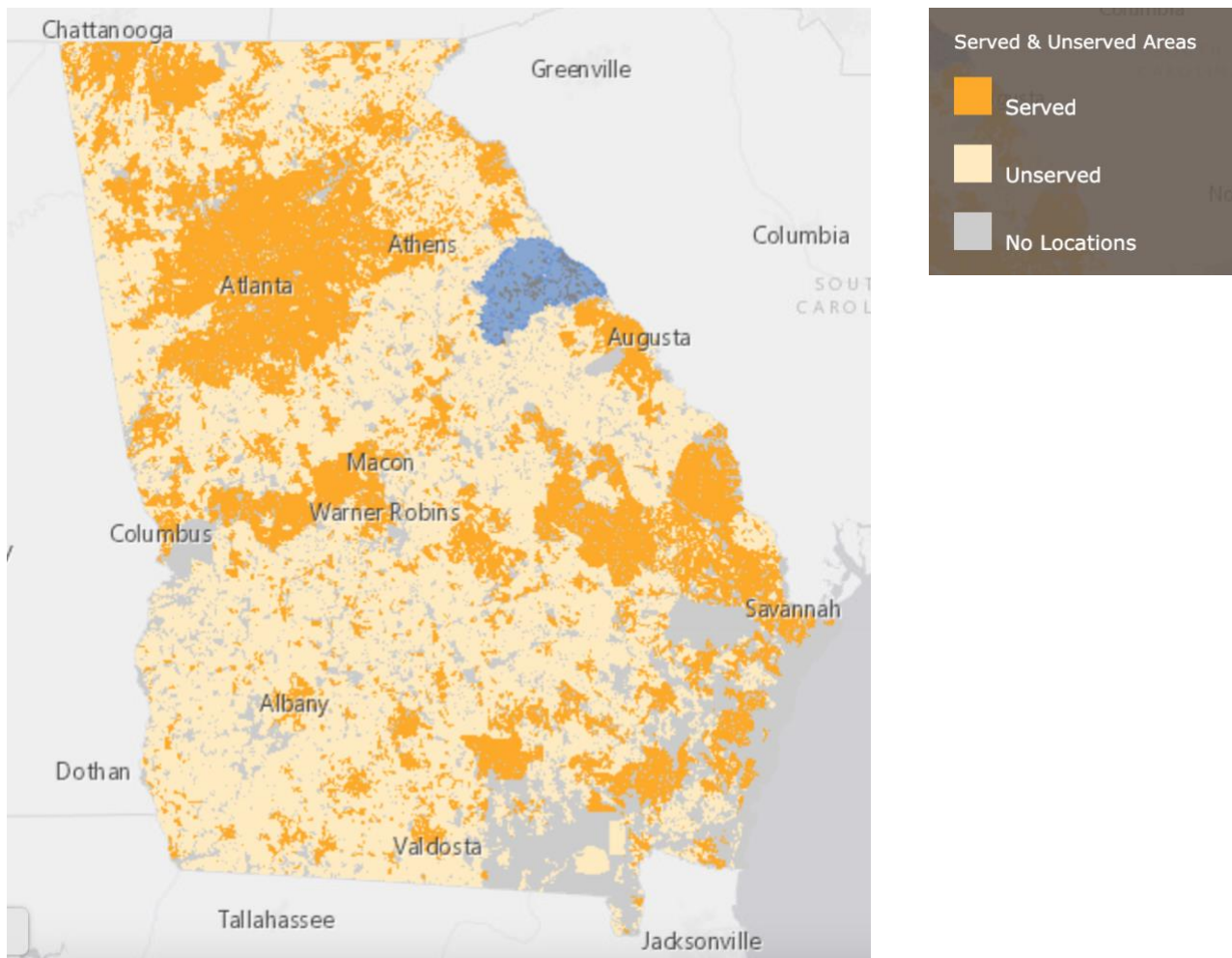
During the COVID-19 pandemic many more Georgians began to see their health care providers over the phone or through video conference platforms (e.g., Zoom or FaceTime). The ability for consumers to receive health services by phone or video is called telemedicine or telehealth.

At least three factors spurred the growth in telemedicine services during the pandemic. Federal and state governments offered increased flexibility to health care providers for how they could allowably see patients during the public health emergency. In addition, both public and private insurers expanded the health services they would pay for if the service was delivered by phone or video (Patel et al., 2021). Finally, many consumers were scared or nervous about going to a doctor's office or other health facility because of the impression that they would be at increased risk of being exposed to COVID-19. These changes prompted many health care providers to offer telemedicine services for the first time or significantly increase the number of telemedicine services available to their patients.

While the increased availability of telemedicine services can improve health care access, there are still barriers to consider for these services. For example, a study conducted by the Centers for Disease Control & Prevention (CDC) comparing telemedicine use between June and November 2020 found that Federally Qualified Health Centers (FQHCs) in the South disproportionately experienced challenges and barriers to providing telemedicine services, with limited broadband access being one of the most common (Demeke et al., 2021).

## Broadband internet access as a barrier to health care

Through our *Georgians in the Driver's Seat* initiative, Georgians for a Healthy Future and The Arc Georgia observed transportation-related barriers to health care seemed to drop during the early months of the pandemic. Despite a reduced need to get to and from a health facility and increased availability of telemedicine, a meaningful number of Georgians still appeared to struggle to access health care services.



*Georgia broadband access map 1*

After some initial research and analysis about broadband internet access in Georgia, our team found that 119 Georgia counties (home to about 10% of Georgia's population (Whitehouse.gov, 2021) meet the criteria of being unserved by broadband internet, indicating that telemedicine services may not be readily accessible in these areas. To better understand the relationship between transportation access and internet access, and how the two may compound barriers to care in underserved areas, our team compared the results from the Georgia Health Transportation Shortage Index (HTSI) to broadband access data in Georgia's 159 counties and selected zip codes.

## **Exploring the intersection of health transportation and internet access**

The relationship between internet and transportation access was measured using data from the Census 2020 Hard to Count Map and the Georgia HTSI results (Georgians for a Healthy Future & The Arc, 2021). For this analysis, broadband services were defined using the Georgia Department of Community Affairs (DCA) measure of 25Mbps down and 3Mbps up in speed. Additionally, counties were deemed “unserved” by broadband internet if 20% of homes and businesses in a census block unable to subscribe to broadband services (consistent with the DCA definition) (Department of Community Affairs n.d.). Our team analyzed the relationship between Georgia counties and internet access and between internet access and health transportation access. The analysis also looked at the relationship between low Census response rate (<40%) by zip code, internet access, and HTSI score to identify any potential impact that a small sample size may have had on the data.

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### **Results**

Of Georgia’s 159 counties, 74 percent (117) meet the classification for health transportation shortage areas (HTSI >6), and 75 percent (119) meet the definition of unserved by broadband internet.

Our analysis found a strong relationship between access to transportation and internet access. Increased access to high-speed internet was associated with increased transportation access. The opposite held true as well; transportation shortages strongly correlated with a lack of broadband internet in Georgia counties (Appendix A). Of the 117 counties in Georgia classified as health transportation shortage areas, 111 counties (94%) are also classified as unserved by broadband internet (Appendix B).

Additionally, 25 zip codes had Census response rates of less than 40 percent. Among these zip codes, the average percentage of homes and businesses without internet service was 46.5 percent, indicating that a small sample size may have impacted the analysis results (Appendix C).

## **Recommendations**

### *Invest in improving health transportation*

While telemedicine has allowed patients to continue to receive care during the pandemic, it is not a sufficient solution to address the lack of access to care faced by many Georgians. Many Georgia counties and their residents face both barriers to reliable health transportation and high-speed internet connections. Additionally, many health services are unavailable or less effective when delivered over the phone or by video (e.g., physical or occupational therapy). To ensure that all Georgians have access to quality and timely care, improving access to health transportation (including non-emergency medical transportation and paratransit) should remain a focus for policymakers, even as telemedicine services become a regular point of care.

### *Focus on rural communities and communities of color*

Rural Georgians and communities of color have both the highest transportation barriers and the least access to broadband internet. Policymakers should prioritize these communities for investments to increase high-speed internet access and improve health transportation.

### *Continue to allow telemedicine services over the phone and in a variety of locations*

Since high-speed internet access across the state is uneven, it is important to continue to allow telemedicine services to be provided over the phone. Additionally, policies should allow telemedicine to be practiced received in various settings, such as libraries, schools, and homes (so long as patient privacy is adequately protected). This flexibility would allow both providers and consumers to utilize telemedicine services outside of traditional settings and would broaden access to care.

House Bill 307, which passed during the 2021 legislative session, allows patients to receive telemedicine services in locations such as their home, school, or workplace and allows providers to provide telemedicine services from their home. This bill makes permanent several of the telehealth flexibilities allowed during COVID-19 pandemic and is a positive foundation for expanding access more broadly.

### *Improve Data Collection in Areas with Low Response Rate*

While the analysis did find a strong connection between broadband internet and health transportation access, a larger sample size could improve the data. Many of the areas identified as having both a lack of access to high-speed internet and health transportation also had low Census response rates. Additional data collection could provide a better understanding of the relationship between internet and health transportation availability.

### **Conclusion**

Expanded telemedicine services will likely remain in place beyond the COVID-19 pandemic. While telemedicine does have the potential to reduce barriers to care, it is not a silver bullet and does not relieve the need to address transportation. The state will need to invest in both improved access to broadband internet access and better health transportation services to ensure all Georgians can get quality health care in a timely manner.



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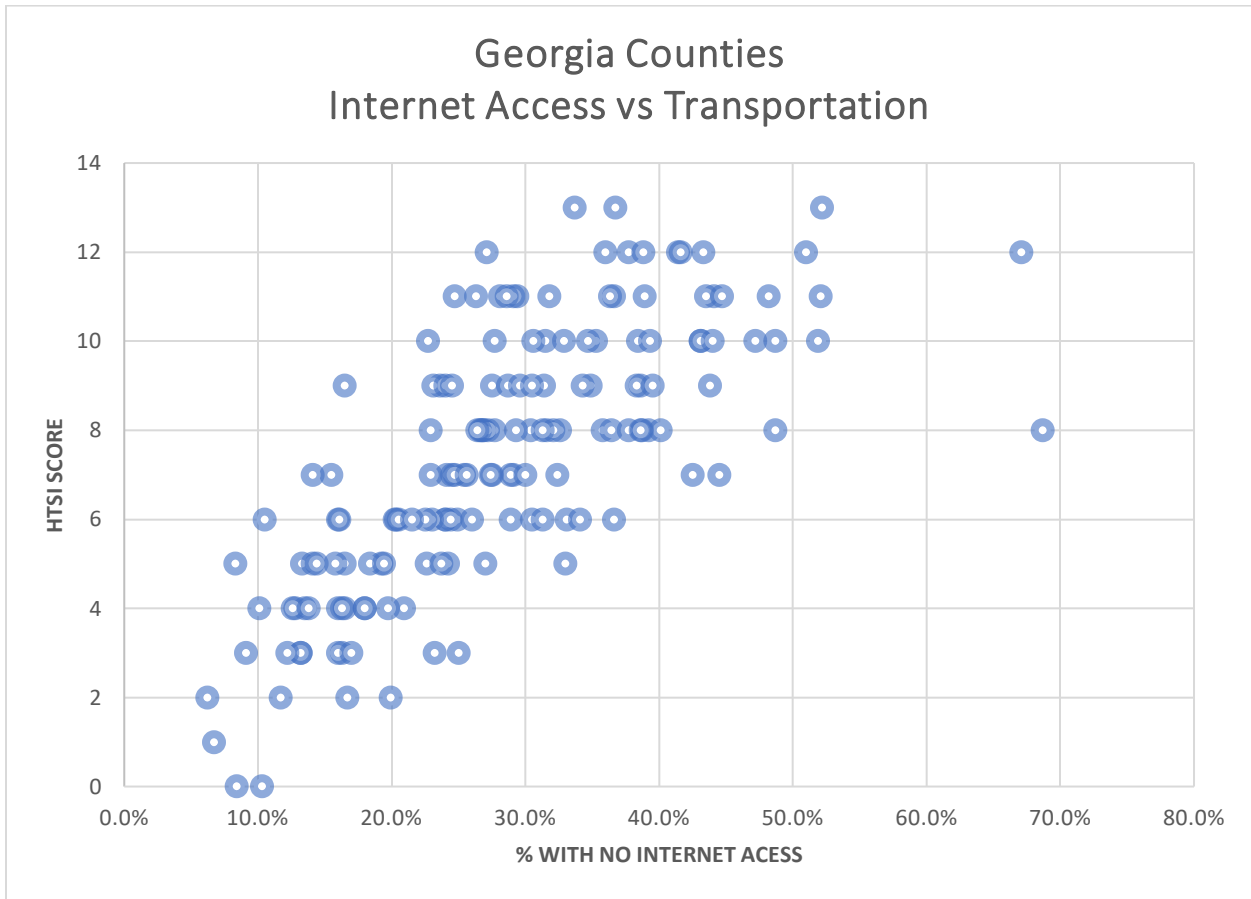
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# Appendix A

Transportation Shortage Areas	
% of GA Counties	74%
% with Limited Int.	94%



	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	5.37	0.55	9.81	7.16813E-17	4.29	6.46	4.29	6.46
% No Int	10.30	1.61	6.42	<b>3.21366E-09</b>	7.12	13.48	7.12	13.48

Finding: a correlation between limited transportation access and lack of internet availability in counties in Georgia

Assuming transportation (telemedicine) in an area is influenced by internet availability

Null Hyp: There is no statistical significance between the two variables

Alt. Hyp: There is a statistically significant relationship between the two variables

## Appendix B

<b>Internet Access for Counties with Transportation Shortages</b>		
<b>County</b>	<b>HTSI Score</b>	<b>% No Int</b>
Appling	8	35.8%
Atkinson	11	38.9%
Bacon	8	32.6%
Baker	8	48.7%
Baldwin	6	24.9%
Ben Hill	8	36.4%
Berrien	10	35.3%
Bleckley	10	31.5%
Brantley	9	27.5%
Brooks	10	27.7%
Bulloch	6	20.2%
Burke	9	31.4%
Butts	8	26.8%
Calhoun	9	38.6%
Candler	9	38.3%
Charlton	11	31.8%
Chattooga	7	29.1%
Clay	13	33.7%
Clinch	10	47.2%
Coffee	6	33.1%
Colquitt	8	26.7%
Cook	8	31.6%
Crawford	11	29.4%
Crisp	6	36.6%
Dade	9	23.6%
Decatur	7	44.5%
Dodge	7	42.5%

Dooly	10	38.4%
Early	10	43.1%
Echols	13	52.2%
Elbert	8	39.2%
Emanuel	10	30.6%
Evans	9	28.7%
Floyd	6	20.3%
Franklin	8	30.4%
Gilmer	6	24.0%
Glascock	9	34.9%
Gordon	7	24.1%
Grady	8	27.7%
Greene	7	28.9%
Habersham	6	28.9%
Hancock	11	48.2%
Haralson	7	24.5%
Harris	7	15.5%
Hart	9	29.6%
Heard	6	30.5%
Irwin	8	40.1%
Jasper	12	27.1%
Jeff Davis	12	37.7%
Jefferson	9	43.8%
Jenkins	11	44.1%
Johnson	12	36.0%
Lamar	8	26.9%
Lanier	11	36.6%
Laurens	8	37.7%
Lee	6	16.0%
Lincoln	12	43.3%
Long	9	16.5%
Lowndes	6	24.0%

Macon	9	39.5%
Madison	7	25.4%
Marion	13	36.7%
McDuffie	8	38.7%
Mcintosh	10	22.7%
Meriwether	8	38.6%
Miller	10	48.7%
Mitchell	10	32.9%
Monroe	6	24.4%
Montgomery	11	26.3%
Morgan	9	23.1%
Murray	6	23.0%
Newton	7	14.1%
Oglethorpe	8	32.1%
Paulding	6	10.5%
Peach	9	24.0%
Pierce	9	30.5%
Polk	7	22.9%
Pulaski	8	31.3%
Putnam	6	22.5%
Quitman	12	41.4%
Rabun	7	27.5%
Randolph	11	29.1%
Rockdale	6	16.1%
Schley	11	28.1%
Screven	11	28.6%
Seminole	10	34.7%
Stephens	8	27.2%
Stewart	11	43.5%
Sumter	6	31.3%
Talbot	10	43.1%
Taliaferro	12	51.0%

Tattnall	8	26.6%
Taylor	11	36.3%
Telfair	8	68.7%
Terrell	11	24.7%
Thomas	6	20.5%
Tift	6	34.1%
Toombs	8	29.3%
Towns	9	24.5%
Treutlen	12	38.8%
Troup	7	24.7%
Turner	9	34.3%
Twiggs	10	44.0%
Union	8	22.9%
Upson	7	30.0%
Ware	7	27.4%
Warren	11	52.1%
Washington	7	32.4%
Wayne	6	26.0%
Webster	12	41.6%
Wheeler	12	67.1%
White	7	25.6%
Whitfield	6	21.5%
Wilcox	11	44.7%
Wilkes	10	51.9%
Wilkinson	10	39.3%
Worth	8	26.4%

## Appendix C

<b>Zip Codes with Low Census Response Rate and Transportation Shortages</b>				
<b>County</b>	<b>Zip Code</b>	<b>&gt;20% No Int</b>	<b>Tract's Self-Response %</b>	<b>HTSI Score</b>
Quitman	39854	41.4%	28.5%	12
Quitman	39867	41.4%	28.5%	12
Wilcox	31079	46.8%	28.3%	11
Thomas	31765	38.6%	27.0%	6
Jefferson	30477	53.1%	28.9%	9
Jefferson	30413	53.1%	28.9%	9
Clay	39851	33.7%	39.1%	13
Clay	39824	33.7%	39.1%	13
Baker	39837	46.3%	37.4%	8
Baker	39870	46.3%	37.4%	8
Telfair	31077	63.5%	36.0%	8
Telfair	31060	63.5%	36.0%	8
Telfair	31544	66.0%	39.8%	8
Telfair	31549	66.0%	39.8%	8
Telfair	31055	66.0%	39.8%	8
Dodge	31011	54.5%	37.9%	7
Wheeler	30411	61.0%	37.2%	12
Wheeler	30428	75.5%	40.0%	12
Emanuel	30471	34.1%	36.2%	10
Pulaski	31036	26.0%	39.0%	8
Hancock	31087	32.3%	32.9%	11
Rabun	30537	31.1%	28.0%	7
Rabun	30562	31.1%	29.0%	7
Rabun	30525	31.1%	28.0%	7
Gilmer	30540	26.4%	37.6%	6