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**PATTERNS OF TELEHEALTH USE IN
SOUTH CAROLINA MEDICAID PATIENTS:
IMPACT OF THE COVID-19 PANDEMIC**

Whitepaper prepared by the South Carolina Center for Rural and Primary Healthcare
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Patterns of Telehealth Use in South Carolina Medicaid Patients: Impact of the COVID-19 Pandemic

In response to the national public health emergency posed by COVID-19, Federal and State governments, as well as other payers, including BCBSSC, made significant changes in policies related to the delivery of telehealth services¹⁻⁴. These changes were made to ensure access to care for patients during the pandemic⁴. As a result of changes in reimbursement and the need to minimize face-to-face care, telehealth services rapidly increased across the country⁴.

This paper examines changes in utilization of telehealth services between 2018 and early 2022 in relation to COVID-19. Additionally, differences in utilization between patients who reside in rural or urban zip codes are explored.

A dataset of all SC Medicaid claims data containing a telehealth modifier since January 2018 was received from the SC Department of Health and Human Services. Due to the nature of Medicaid claims processing, the last 6 months of the dataset were removed from the analysis to account for delays in claim submissions. The data presented encompass telehealth claims from January 2018 – May 2022.

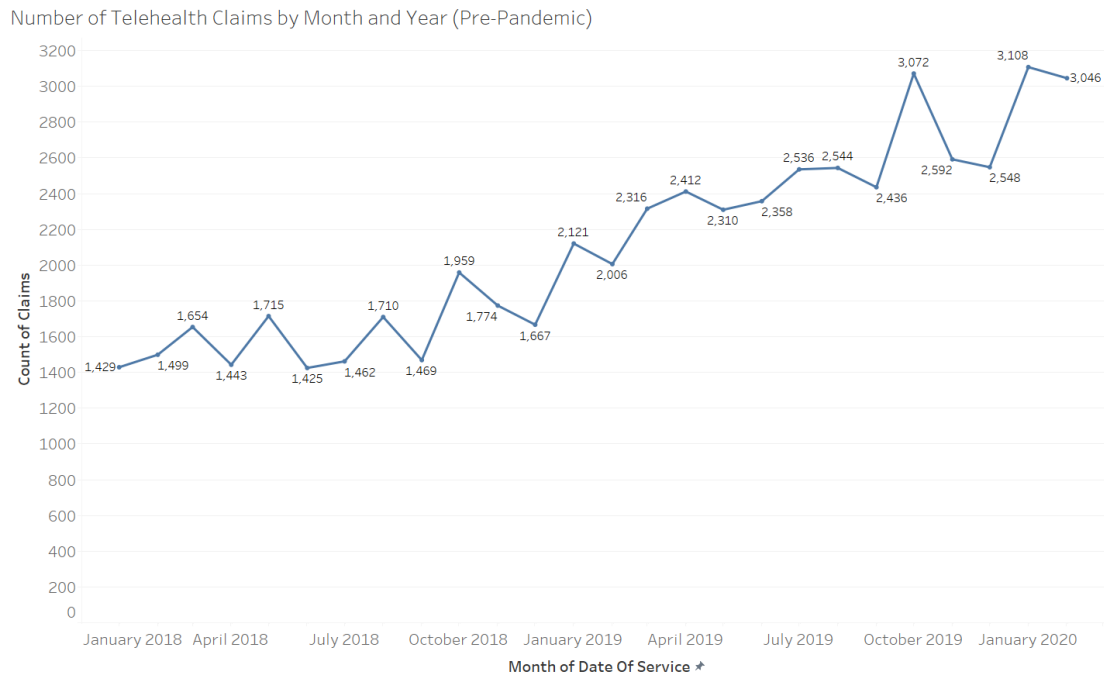
Impact of COVID-19 on Telehealth Claims

During the pre-pandemic period of our dataset, telehealth use was low, with only a few thousand claims per month. Nonetheless, there was a 113% increase in the number of telehealth claims paid by SC Medicaid between January 2018 and February 2020.

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Figure 1. Number of telehealth claims by Month and Year, January 2018 - February 2020



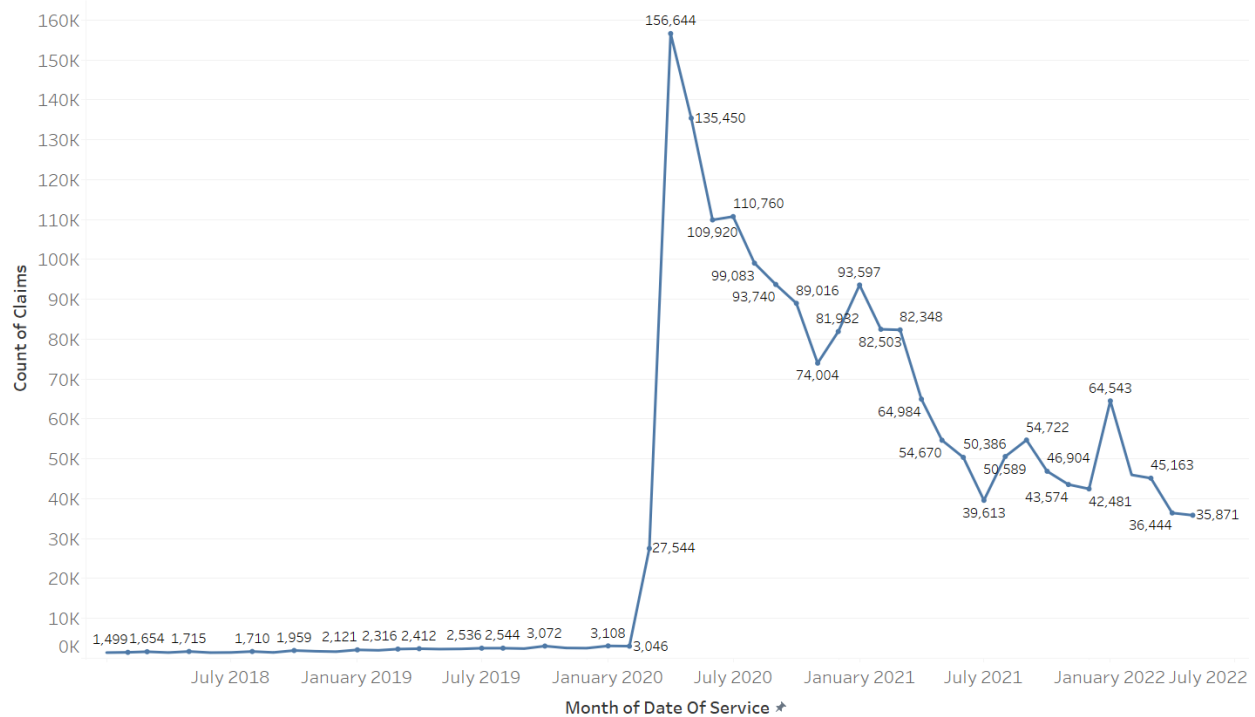
As the pandemic unfolded in March of 2020, a number of policies and grants were established to expand telehealth access¹⁻⁴. These include an emergency funding bill that expanded telehealth coverage to all Medicare beneficiaries, a national emergency declaration which allowed HHS to permit out-of-state physicians to treat patients via telehealth, and a further expansion of Medicare telehealth capabilities allowing several new visit types to be conducted virtually¹⁻³. Additional regulations were enacted to support the growing use to telemedicine throughout 2020¹⁻⁴.

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Figure 2 - Number of telehealth claims by Month and Year, January 2018 – May 2022

Number of Telehealth Claims by Month and Year



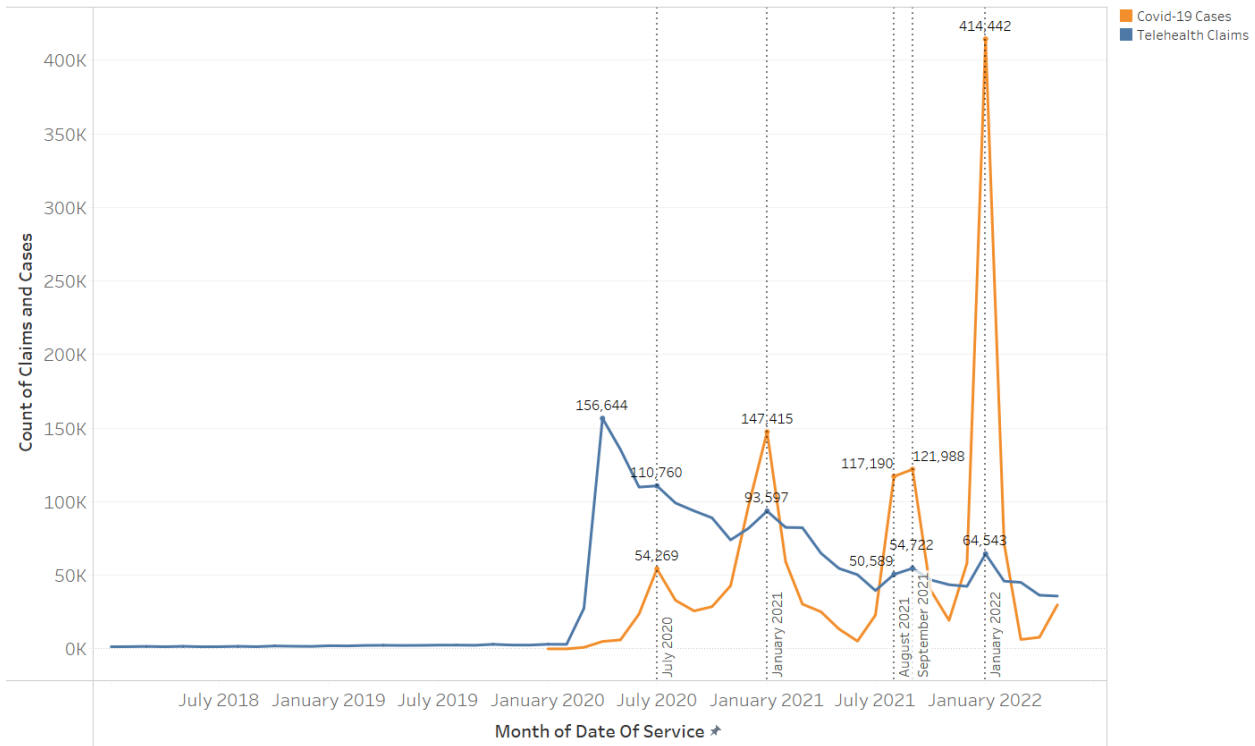
The impact of these expanded policies is evident in South Carolina. There was an 804% increase in the number of telehealth claims paid by SC Medicaid between February 2020 and March 2020. Claims peaked in April 2020 with 156,644 claims. This peak occurs in the same timeframe as South Carolina’s “Work or Home” order which was issued on April 6, 2020⁵. As shown in figure 2, the number of telehealth claims is on a downward trend with a 77% decrease from the peak in April 2020 to current claims in May 2022. This decline may be related to the “reopening” of the state when the “Work or Home” order was lifted on May 4, 2020⁶. However, it is important to note that current telehealth use is still well above pre-pandemic levels. Additionally, the downward trend is not continuous. Rather, it is marked by distinct spikes in claims.

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Figure 3. Number of telehealth claims and new South Carolina COVID-19 cases by Month and Year (COVID-19 data from CDC COVID-19 Response⁷)

Number of SC Covid-19 Cases and Telehealth Claims



These spikes appear concurrent to the number of new COVID-19 cases in the state. As shown in figure 3, any time the number of Medicaid telehealth claims increased after April 2020, we see a matching spike in the number of new COVID-19 cases in South Carolina⁷.

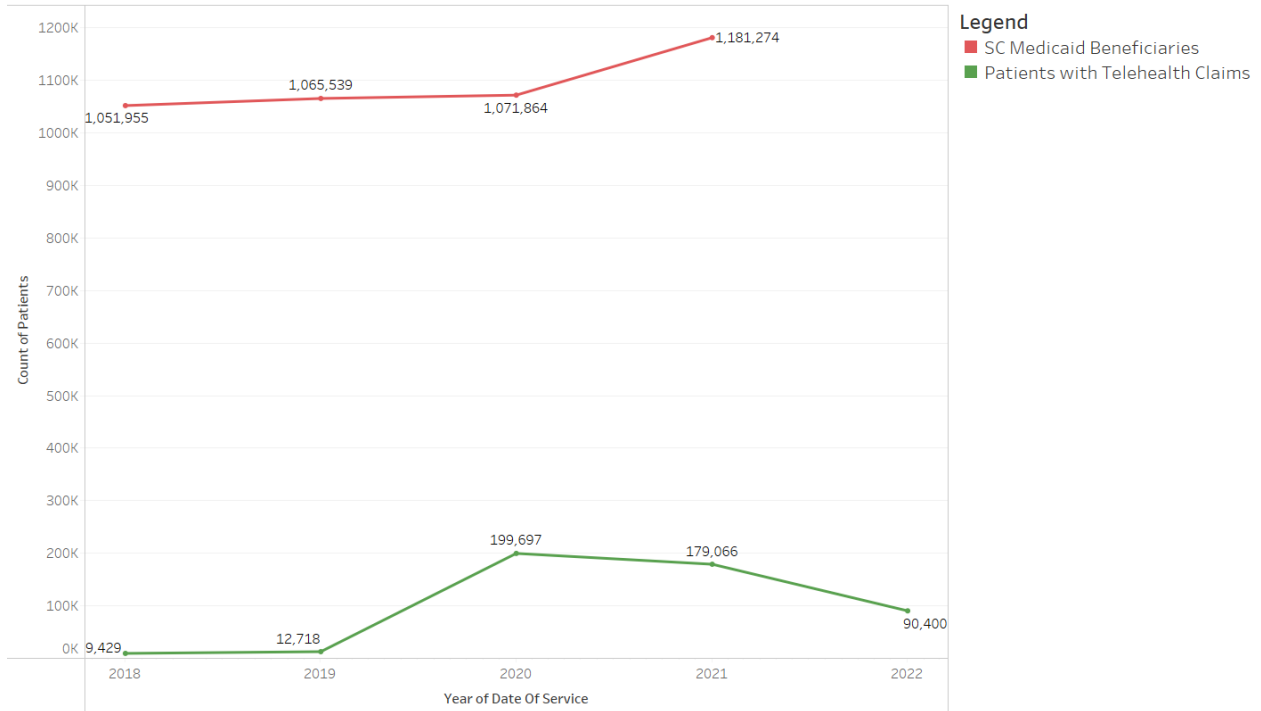
In addition to an increase in the number of telehealth claims, the pandemic also increased the proportion of SC Medicaid patients who used telehealth. Pre-pandemic, approximately 1% of SC Medicaid beneficiaries had any telehealth claims for the year. Use of telehealth increased to 18% in 2020 and 15% in 2021 (see figure 4).

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Figure 4. Count of patients with Medicaid benefits and telehealth claims, per year (total beneficiaries data from SC HealthViz⁸)

Total Number of SC Medicaid Beneficiaries and Number of Patients with a Telehealth Claim



Differences by Rurality

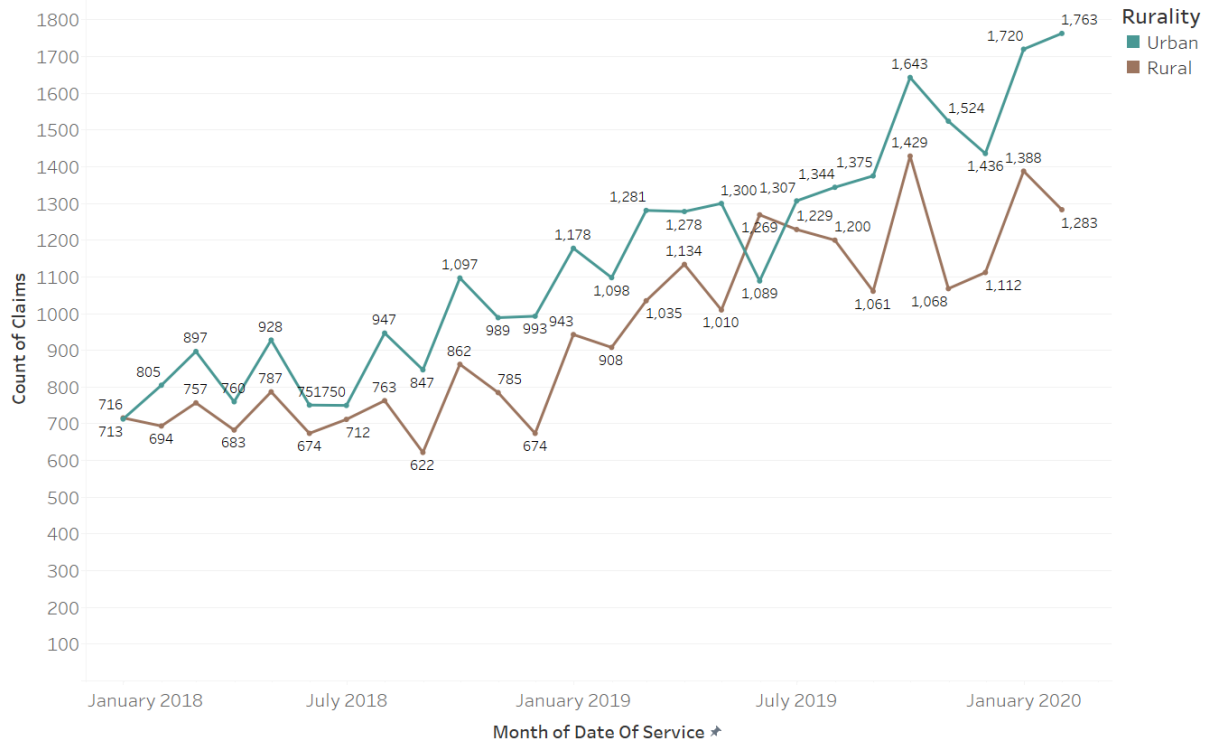
Prior to the pandemic, telehealth was viewed as a way to reduce barriers to healthcare access for rural populations⁹. However, the success of these services relies on infrastructure (such as broadband access) and lenient policies (such as parity laws)¹⁰. South Carolina is known to have poorer broadband access, especially in rural areas, and more restrictive telemedicine policies.³ ¹⁰ To assess the impact of rurality on telehealth use, all claims originating from a Federal Office of Rural Health Policy eligible zip code¹¹ were categorized as rural. As shown in figure 5, urban beneficiaries had slightly more telehealth claims during the pre-pandemic than those residing in rural. However, both groups have a gradual increase in the number of claims over time.

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Figure 5 - Number of telehealth claims by Rurality and Month and Year, January 2018 - February 2020

Number of Telehealth Claims by Rurality



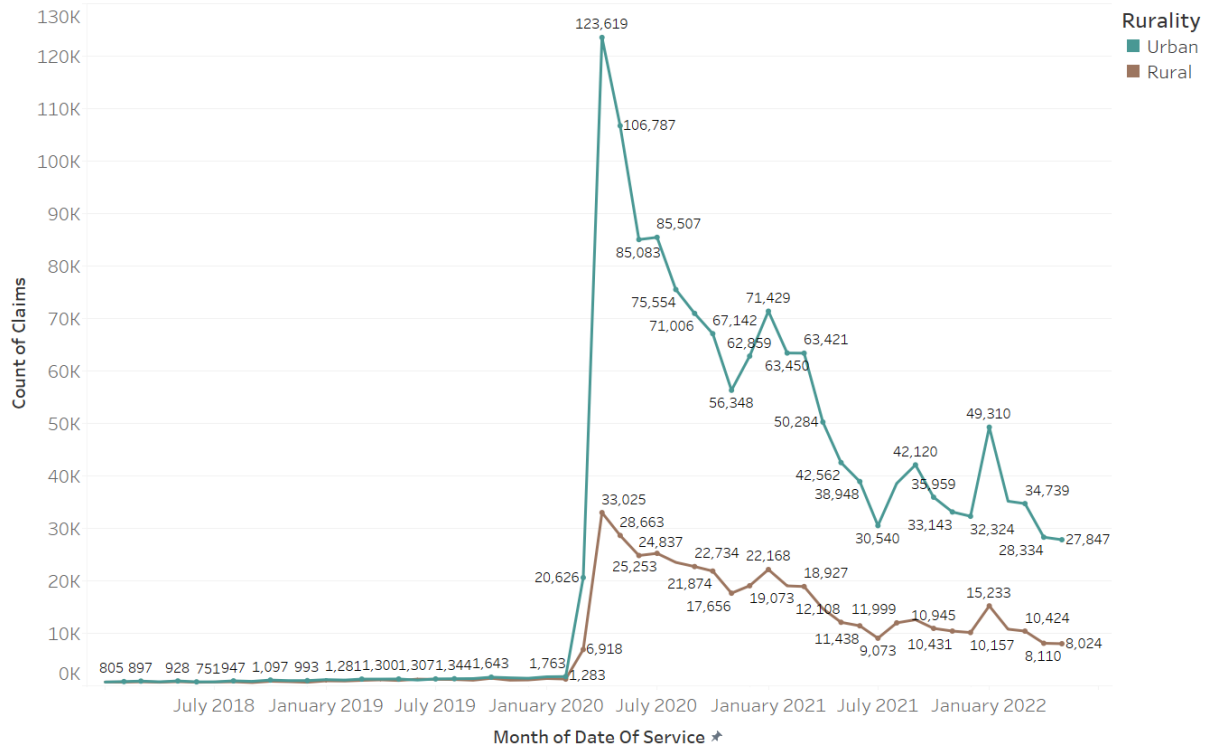
Adding the most current telehealth data, we see that both rural and urban beneficiaries saw a sharp increase at the start of the pandemic. Claims for urban beneficiaries increase 1069% between February and March 2020, and 499% between March and April 2020. Meanwhile, telehealth claims for rural beneficiaries increase 439% between February and March 2020, and 377% between March and April 2020. Additionally, both groups experienced a decrease in telehealth claims after their peak in April, urban beneficiaries made 77% fewer claims while rural beneficiaries had a 75% decrease through May 2022.

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Figure 6 - Number of telehealth claims by Rurality and Month and Year, January 2018 – May 2022

Number of Telehealth Claims by Rurality



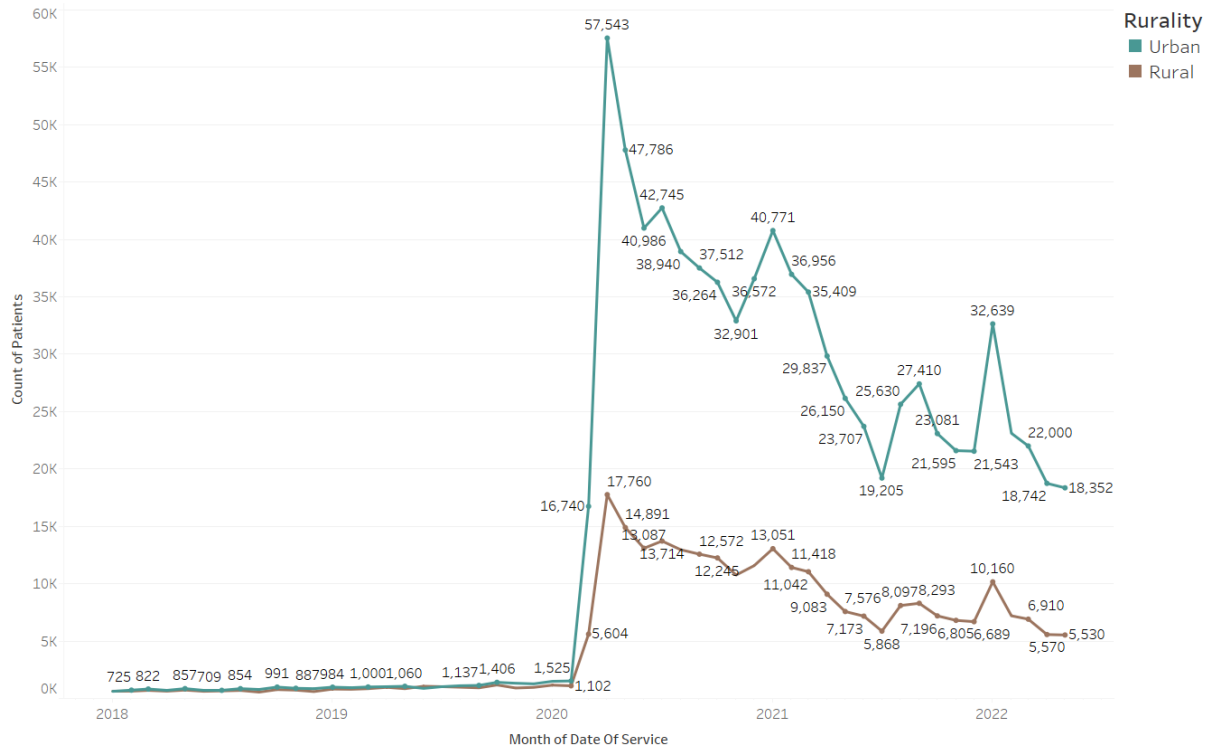
These differences could be the result of unequal sample sizes. As shown in Figure 7, there are more than 3 times the number of Medicaid beneficiaries making telehealth claims in urban areas than in rural.

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Figure 7 - Number of Patients with a Telehealth Claim by Rurality and Month and Year, January 2018 – May 2022

Number of Patients with a Telehealth Claim by Rurality



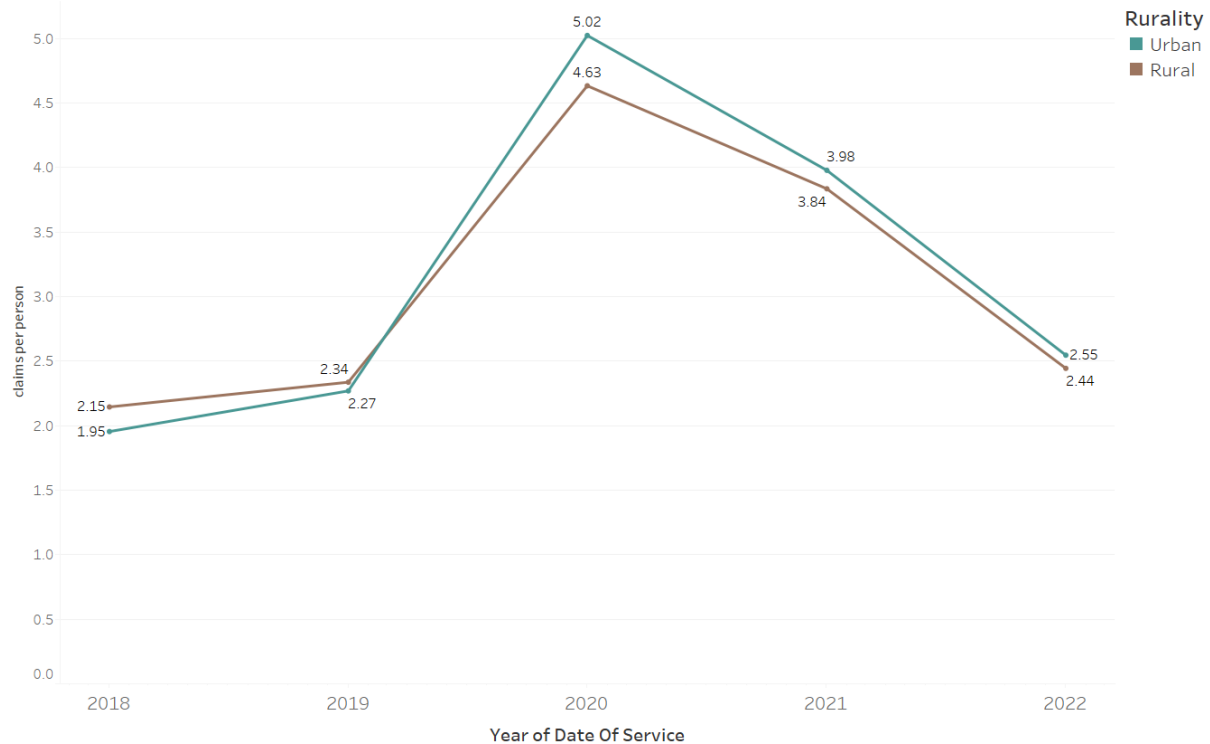
To account for these unequal sample sizes, figure 8 displays the average number of telehealth claims by geographic location. When viewed in this manner, the differences between rural and urban are greatly diminished. In fact, beneficiaries residing in rural areas had more telehealth claims in 2018. That difference disappears in 2019 and is reversed for the remainder of the timeframe.

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Figure 8 – Average Number of Telehealth Claims per Person by Rurality and Year, 2018-2022

Average Number of Telehealth Claims by Rurality



Conclusion

Telehealth use by South Carolina Medicaid beneficiaries was on a slow but upward trend during 2018 and 2019. During this time period, beneficiaries residing in rural areas had slightly more telehealth claims per person than their urban counterparts. The COVID-19 pandemic accelerated uptake of telehealth, especially in the early months when stay-home orders were implemented, and non-essential activities were limited. Telehealth claims peaked in April 2020 just as the State implemented a “Work or Home” order.

As restrictions were lifted, starting in May 2020, telehealth claims by Medicaid beneficiaries show a decreasing trend. Subsequent spike in the number of claims coordinates with a similar spike in the State’s number of COVID cases. Additionally, there is a reversal in average number of claims made by geographical location. That is, beneficiaries residing in urban zip codes had more telehealth claims per person than rural beneficiaries.

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