ASPE ASSISTANT SECRETARY FOR PLANNING AND EVALUATION | OFFICE OF HEALTH POLICY

ISSUE BRIEF

HP-2025-07

Trends in Medicaid and CHIP Telehealth Part III: Telehealth Utilization Trends Among Child Enrollees, 2019-2021

Services delivered via telehealth to pediatric Medicaid and CHIP enrollees rapidly expanded with the onset of the COVID-19 Public Health Emergency (PHE) in 2020 and remained higher than pre-PHE levels in 2021. However, services delivered via telehealth only partially offset declines in in-person services, and total Medicaid and CHIP service utilization remained below pre-PHE levels in 2021.

Caroline Hogan, Aiden Lee, Christie Peters, Nancy De Lew

KEY POINTS

- Total Medicaid and CHIP service utilization among enrollees ages 0-18 years decreased by 17.8 percent following the onset of the COVID-19 PHE, from nearly 495 million services in 2019 to 407 million services in 2020.
- This total decrease was largely driven by a drop in services delivered in-person to children of all age groups and racial and ethnic groups but was in part mitigated by a rapid increase in services delivered via telehealth.
- The share of services delivered via telehealth to enrollees ages 0-18 peaked at 20.2 percent in the second quarter (April to June) of 2020, an increase of 19.9 percentage points from 0.3 percent of all services in the second quarter of 2019.
- While children of all race and ethnic groups saw a large increase in number of services delivered via telehealth from 2019 to 2020, Non-Hispanic Native Hawaiian/Pacific Islander, Black, and Asian children saw the greatest percent increase of 8,055, 3,405, and 5,168 percent respectively.
- Disparities between racial and ethnic groups in telehealth utilization that were evident in 2019 were mitigated as telehealth usage became more prevalent, with the distribution of Medicaid and CHIP services delivered via telehealth by race and ethnicity more closely resembling the distribution of all Medicaid and CHIP enrollees by race and ethnicity.
- Expanded services delivered via telehealth only partially offset the decline in pediatric in-person services, as total Medicaid and CHIP services remained below pre-PHE levels as of 2021.

BACKGROUND

Telehealth is defined as "the use of telecommunications and information technology to provide access to health assessment, diagnosis, intervention, consultation, supervision, and information across distance."[1] With telehealth, health services may be provided synchronously, through real-time video, audio-only, or text-based communications between patients and providers. Health services may also be provided asynchronously,

through the sharing and review of clinical documents, videos, or images before and/or after a real-time visit ("store-and-forward"); tracking and/or sharing of health information via cell phones, tablets, or wearable devices ("mobile health" or "mHealth"); or remote monitoring of patient vital signs or other health data ("remote patient monitoring").[2,3] In pediatrics, telehealth has been used to deliver a variety of health services to children, including well-child and acute care; specialty care; physical, occupational, and speech and language therapies; and nutrition, language interpretation, and child life services.[4,5,6] As with other patient populations, telehealth has the potential to expand access to care, particularly for children living in rural and/or under-resourced communities; children with chronic conditions and special healthcare needs; and children experiencing social, economic, or other barriers to in-person health services.[7]

For years, state Medicaid programs have had flexibility in determining their telehealth policies, including what healthcare services, service locations, provider types, and telehealth modalities will be covered, and at what reimbursement rates.[1] These flexibilities typically apply to states with a separate Children's Health Insurance Program (CHIP), as well.[8] As of 2019, all 50 states and the District of Columbia allowed at least some services to be delivered via telehealth under Medicaid.[9]

This Issue Brief is the third in a series examining telehealth utilization trends among Medicaid and CHIP enrollees before and during the COVID-19 PHE from 2019 to 2021. The report builds on ASPE's portfolio of Medicaid and CHIP telehealth research by further examining national trends in telehealth service delivery to enrollees ages 0-18 years from 2019 to 2021, by enrollee characteristics such as age group and race and ethnicity.

METHODS

The study methodology for this brief is the same as in ASPE's prior analyses in this series.[10,11] We analyzed data from the Transformed Medicaid Statistical Information System (T-MSIS), which collects Medicaid and CHIP data from U.S. states, territories, and the District of Columbia into the largest national resource of enrollee information. The study period for the series of Medicaid Telehealth Issue Briefs was from calendar years (CYs) 2019 through 2021; this allowed us to look at changes in telehealth utilization for Medicaid enrollees before and during the COVID-19 PHE, stratified by key enrollee-level characteristics. In this analysis, utilization captures unique services via claims, not unique visits or episodes of care. Therefore, our data tables may capture multiple services that took place during the same visit. Services were categorized as being delivered via telehealth if the claim had at least one telehealth code, details of which can be found in Appendix B of the first Issue Brief in the series.[10] Otherwise, the service was flagged as being provided in person. Utilization was measured for all Medicaid and CHIP enrollees living in the 50 states, the District of Columbia, and the two U.S. territories that submitted data to T-MSIS during the study period: Puerto Rico and the Virgin Islands. See the Methodology section and Appendix B of Part I of ASPE's Medicaid telehealth series of reports for further details.[10]

Within this universe of Medicaid and CHIP claims, we calculated the number of services delivered to enrollees 0-18 years with at least one month of Medicaid or CHIP enrollment, or at least one final, non-denied, non-void Medicaid or CHIP fee-for-service or encounter claim. Enrollees ages 0-18 years were included regardless of whether they had a T-MSIS eligibility code indicating child status, consistent with the methodology in the first report of this series.[10] Because enrollee age was calculated as of the end of the calendar year, services for enrollees who were age 18 for only part of the year before turning 19 were not captured.

Subgroup analyses were conducted for available enrollee characteristics, including age (<1 year, 1-5 years, 6-11 years, and 12-18 years) and race and ethnicity (non-Hispanic American Indian or Alaska Native (AI/AN), non-Hispanic Asian, non-Hispanic Black, Hispanic (all races), non-Hispanic Native Hawaiian or Other Pacific Islander (NHPI), non-Hispanic White, and unknown). Additional information on the specific combinations of T-MSIS

race and ethnicity codes used to create the race and ethnicity categories used in this Issue Brief is available in the Methodology section and Appendix B of Part I.[10]

We note that there was a large number of services delivered to enrollees ages 0-18 years with unknown race and ethnicity. As a result, pediatric Medicaid and CHIP service delivery trends by race and ethnicity should be interpreted with caution, since it is unclear what effect reclassification of services delivered to children with unknown race and ethnicity might have if more complete demographic information were available.

FINDINGS

Table 1 shows the number and share of Medicaid and CHIP services (total, in-person, and via telehealth) delivered annually to enrollees ages 0-18 years by age group. From 2019 to 2020, the total number of Medicaid and CHIP services decreased by 17.8 percent from nearly 495 million services in 2019 to 407 million services in 2020. The decrease in total service delivery was largely driven by a drop-off in services delivered in-person, from 493 million services in 2019 to 364 million services in 2020, or a 26.1 percent decrease. This decrease in in-person services was partially offset by an increase in services delivered via telehealth, which dramatically increased from 1.6 million services in 2019 to 42.7 million services in 2020, a 2,623.5 percent increase. Total number of services in 2021 returned closer to pre-pandemic levels by increasing 18.8 percent to 483 million services, with services delivered in-person comprising the majority of the gains. Usage of services delivered by telehealth in 2021 remained at levels much higher than in 2019 but did not increase dramatically from its spike in 2020. Appendix Table 1 has additional data on Medicaid and CHIP service utilization by state.

Table 1. Number and Share of Medicaid and CHIP Services by Delivery Method and Age Group (2019 – 2021)

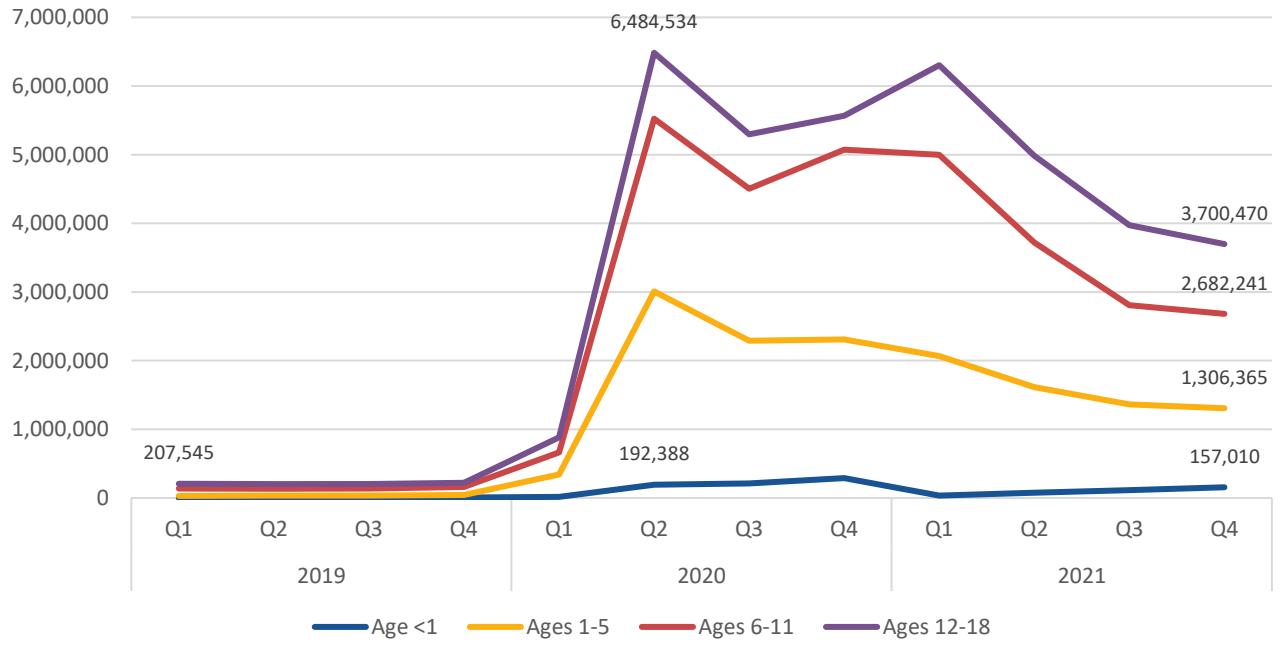
Age Group	Service Type	2019	2020	2021	% Change in service delivery, 2019-2020	% Change in service delivery, 2020-2021
		N % of Total	N % of Total	N % of Total		
All Enrollees (0-18 years)	In-Person	493,390,327 99.7%	364,379,026 89.5%	443,842,319 91.7%	-26.1%	21.8%
	Telehealth	1,566,387 0.3%	42,660,583 10.5%	39,909,806 8.3%	2623.5%	-6.4%
	Total	494,956,714	407,039,609	483,752,125	-17.8%	18.8%
<1 Year	In-Person	30,214,071 100.0%	25,783,268 97.3%	27,961,693 98.7%	-14.7%	8.4%
	Telehealth	13,938 0.0%	708,580 2.7%	381,957 1.3%	4983.8%	-46.1%
	Total	30,228,009	26,491,848	28,343,650	-12.4%	7.0%
1-5 Years	In-Person	140,465,005 99.9%	101,810,766 92.8%	126,498,354 95.2%	-27.5%	24.2%
	Telehealth	146,125 0.1%	7,948,219 7.2%	6,351,855 4.8%	5339.3%	-20.1%
	Total	140,611,130	109,758,985	132,850,209	-21.9%	21.0%
6-11 Years	In-Person	154,026,221 99.6%	106,483,605 87.1%	132,105,942 90.3%	-30.9%	24.1%
	Telehealth	571,695 0.4%	15,768,942 12.9%	14,213,059 9.7%	2658.3%	-9.9%

	Total	154,597,916	122,252,547	146,319,001	-20.9%	19.7%
12-18 Years	In-Person	168,685,030	130,301,451	157,276,403	-22.8%	20.7%
		99.5%	87.7%	89.2%		
	Telehealth	834,629	18,234,778	18,962,862	2084.8%	4.0%
		0.5%	12.3%	10.8%		
	Total	169,519,659	148,536,229	176,239,265	-12.4%	18.7%

Source: ASPE analysis of T-MSIS claims, 2019-2021.
Notes: Table 1 shows the quarterly number and share of services by delivery method by each age group. The denominator is the count of quarterly services by each delivery while the numerator is the count of total quarterly services delivered.

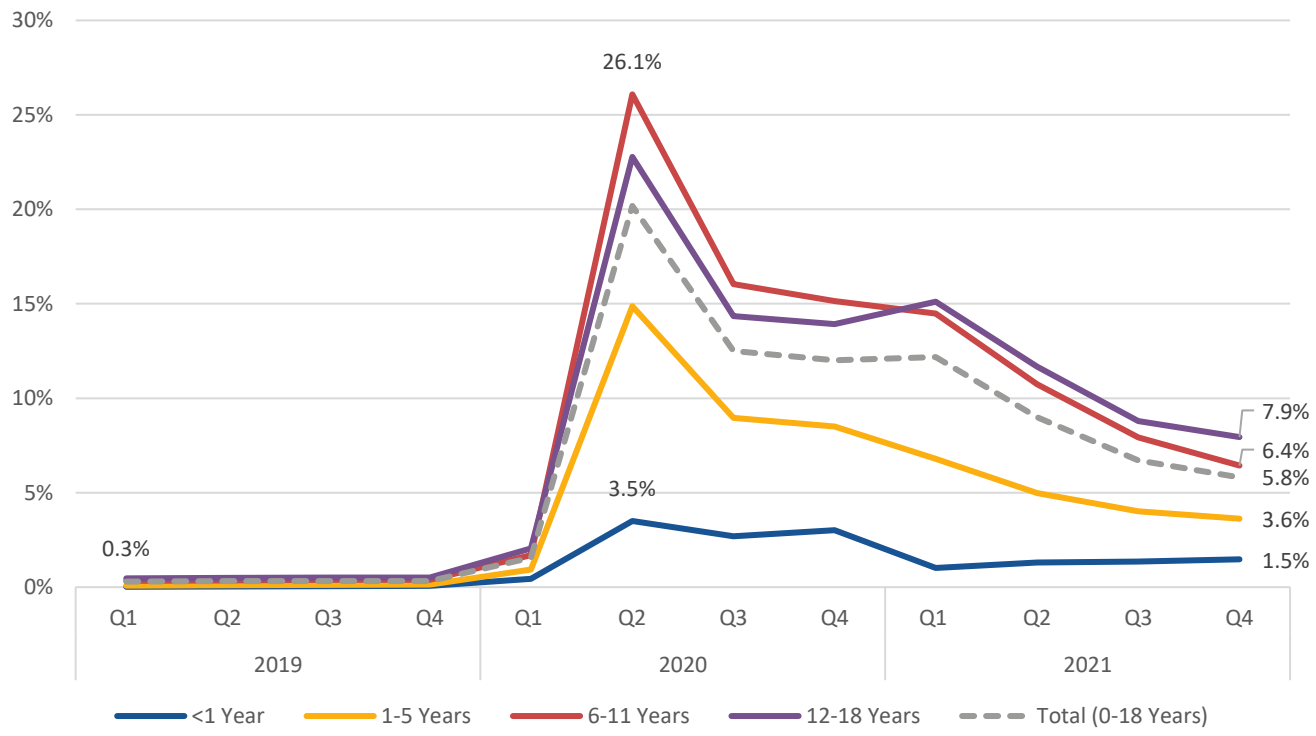
Figures 1 and 2 show the number and share of Medicaid and CHIP services delivered by telehealth to enrollees by age group from the first quarter (Q1) of 2019 to the fourth quarter (Q4) of 2021. The largest increase in the number of services delivered via telehealth was in the second quarter (Q2) of 2020 as the number of services for all children spiked almost 700 percent in one quarter, increasing from 1.9 million in Q1 2020 to over 15 million in Q2 2020. Children ages 12-18 had the greatest increase in number of services delivered by telehealth, at an increase of 5.6 million services. Although the number of services delivered by telehealth by the end of 2021 remained at higher levels than that in 2019, the increase did not result in services delivered by telehealth becoming the predominant delivery method for children ages 0-18. At its peak in Q2 2020, services delivered via telehealth made up 20.2 percent of all services delivered to children, with children ages 6-11 and 12-18 seeing the largest increases in the shares of services delivered via telehealth (26.1 percent and 22.8 percent respectively). By Q4 2021, the share of services delivered by telehealth decreased 14.4 percentage points to 5.8 percent, as the number of services delivered in-person increased. Despite this decrease, usage of services delivered via telehealth remained at much higher levels than prior to the COVID-19 pandemic.

Figure 1. Number of Medicaid and CHIP Services Delivered by Telehealth by Age Group (Q1 2019 – Q4 2021)



Source: ASPE analysis of T-MSIS claims, 2019-2021.
Notes: Figure 1 shows the number of total Medicaid and CHIP services delivered via telehealth, by age group and quarter.

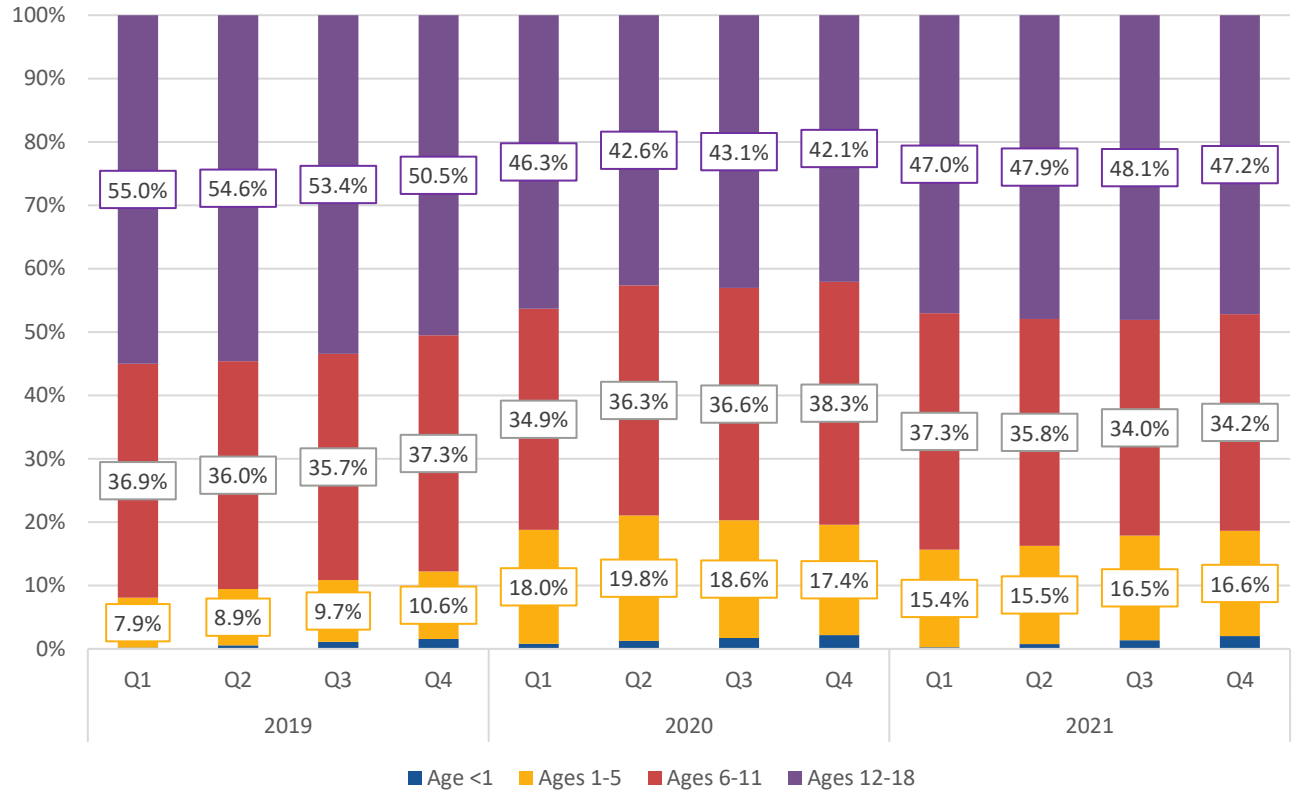
Figure 2. Share of Medicaid and CHIP Services Delivered by Telehealth, Ages 0-18 (Q1 2019 – Q4 2021)



Source: ASPE analysis of T-MSIS claims, 2019-2021.
Notes: Figure 2 shows the share of services delivered by telehealth that were utilized by each age group, by quarter. The denominator is the count of total quarterly services delivered in person or by telehealth for each age group, while the numerator is the count of total quarterly services delivered by telehealth of each age group.

Figure 3 shows the quarterly distribution of Medicaid and CHIP services delivered by telehealth by age group. Children ages 12-18 received the majority of all services delivered by telehealth in all four quarters of 2019. Their share of services delivered by telehealth subsequently decreased a few percentage points in 2020 and 2021 but remained the highest out of all age groups. The greatest quarter to quarter percentage point increase was among children ages 1-5 from Q4 2019 to Q1 2020, when the age group's share of services delivered by telehealth increased 7.3 percentage points from 10.6 percent to 19.8 percent. Children under 1 year received the smallest share of services delivered by telehealth in the single digits for all quarters of the analysis. Appendix Table 2 has additional data on Medicaid and CHIP services by age group that are not shown in Figure 3.

Figure 3. Distribution of Medicaid and CHIP Services Delivered by Telehealth by Age Group (Q1 2019 – Q4 2021)



Source: ASPE analysis of T-MSIS claims, 2019-2021.
Notes: Figure 2 shows the distribution of services delivered by telehealth that were utilized by each age group, by quarter. The denominator is the count of total quarterly services delivered by telehealth for children ages 0-18, while the numerator is the count of total quarterly services delivered by telehealth of each age group.

Table 2 shows the number of Medicaid and CHIP enrollees by age group that ever utilized services delivered via telehealth within a given calendar year from 2019 to 2021. From 2019 to 2020, younger children ages 0-5 had the largest annual percent increases in telehealth utilization by enrollees, with children under 1 year and 1-5 years seeing an increase of 3,810 percent and 3,245 percent respectively. Children ages 6-11 and adolescents ages 12-18 had larger numbers of enrollees utilizing services delivered via telehealth, with numbers increasing from 200,000 to over 2.8 million and 139,000 to 2.4 million respectively. When compared to the numbers of services delivered via telehealth reported in Table 1, it is likely that children utilizing these services did so multiple times throughout the study period.

Table 2. Number of Medicaid and CHIP Enrollees Utilizing Telehealth by Age Group (2019-2021)

Age group	2019	2020	2021	Change 2019-2020	Change 2020 to 2021
<1 Year	7,867	307,658	189,780	3810.7%	-38.3%
1-5 Years	56,348	1,884,897	1,704,905	3245.1%	-9.5%
6-11 Years	139,186	2,445,027	2,334,388	1656.7%	-4.5%
12-18 Years	207,746	2,881,674	2,909,863	1287.1%	1.0%
0-18 Years	411,147	7,519,256	7,138,936	1728.8%	-5.1%

Source: ASPE analysis of T-MSIS claims, 2019-2021
Notes: Table 3 reports the number of Medicaid and CHIP enrollees by age group for all 50 states, DC, PR, and VI.

Table 3 shows that the total number of Medicaid and CHIP services delivered to enrollees ages 0-18 years decreased across all racial and ethnic groups from 2019 to 2020. Consistent with previous findings, this decrease was driven by a drop in services delivered in-person. In 2019, almost 100 percent of Medicaid and CHIP services were delivered in-person to children. This share dropped to under 89.5 percent in 2020, as services delivered via telehealth increased in response to the PHE. The percentage decrease in annual in-person service delivery from 2019 to 2020 was greatest for non-Hispanic NHPI children (-32.9 percent), and smallest for children of unknown race and ethnicity (-20.4 percent) and non-Hispanic White children (-24.9 percent). These decreases in in-person service utilization were slightly mitigated by a large increase in services delivered via telehealth for all racial and ethnic groups. Non-Hispanic NHPI, Black, and Asian children saw the greatest percent increase in number of services delivered by telehealth from 2019 to 2020, at 8,055, 3,405, and 5,168 percent respectively. Following this large increase in number of services delivered via telehealth from 2019 to 2020, children in most racial and ethnic groups saw a slight decline in their number of services from 2020 to 2021, with non-Hispanic Asian and Hispanic children being the exception. These two groups saw modest increases in number of services delivered via telehealth from 2020 to 2021, at 9.8 percent and 3.4 percent respectively.

Table 3. Number and Share of Medicaid and CHIP Services by Delivery Method and Race and Ethnicity, Ages 0-18 (2019 – 2021)

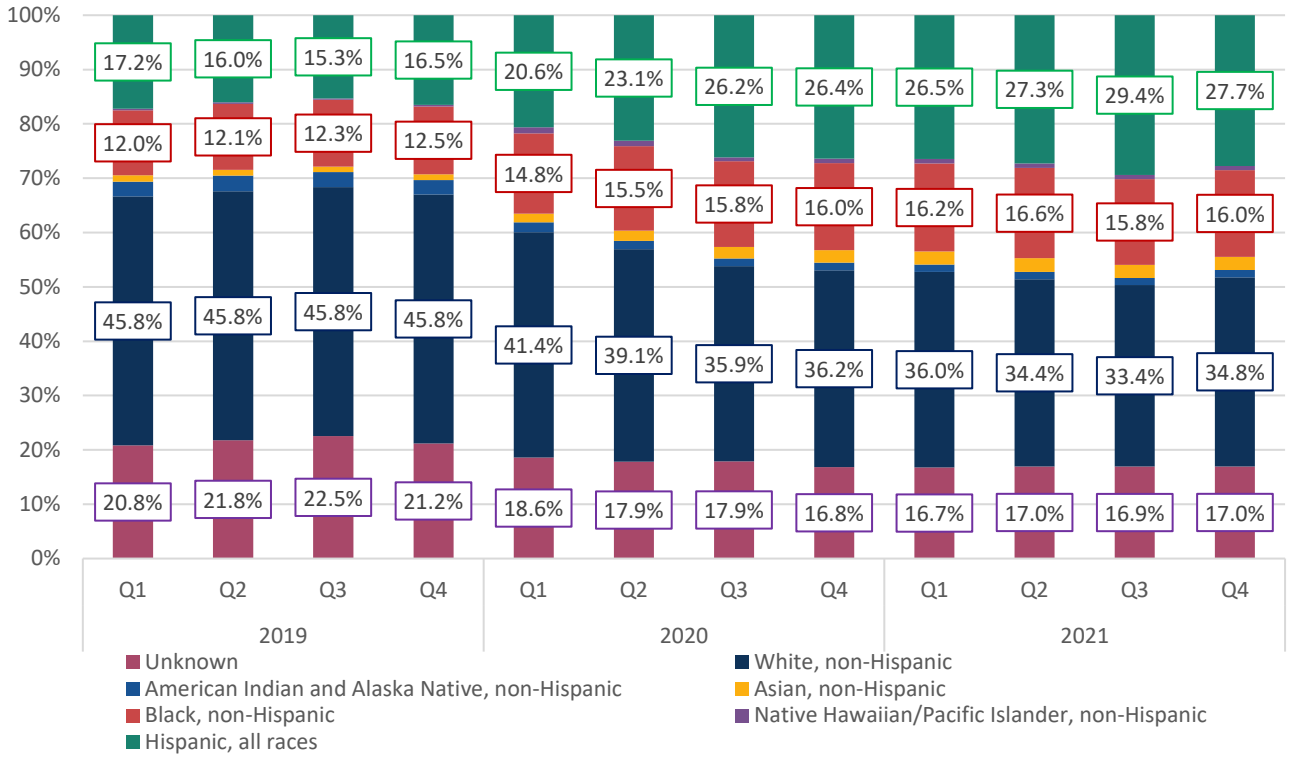
Race and Ethnicity	Service Type	2019	2020	2021	% Change in service delivery, 2019-2020	% Change in service delivery, 2020-2021
		N, % of Total	N, % of Total	N, % of Total		
All Enrollees (0-18 years)	In-Person	493,390,327 99.7%	364,379,026 89.5%	443,842,319 91.7%	-26.1%	21.8%
	Telehealth	1,566,387 0.3%	42,660,583 10.5%	39,909,806 8.3%	2623.5%	-6.4%
	Total	494,956,714	407,039,609	483,752,125	-17.8%	18.8%
American Indian or Alaska Native	In-Person	7,326,594 99.4%	5,354,688 89.5%	6,237,385 92.1%	-26.9%	16.5%
	Telehealth	43,560 0.6%	626,298 10.5%	533,095 7.9%	1337.8%	-14.9%
	Total	7,370,154	5,980,986	6,770,480	-18.8%	13.2%
Asian, non-Hispanic	In-Person	12,182,300 99.9%	8,544,793 90.6%	10,641,840 91.6%	-29.9%	24.5%
	Telehealth	16,768 0.1%	883,406 9.4%	969,949 8.4%	5168.4%	9.8%
	Total	12,199,068	9,428,199	11,611,789	-22.7%	23.2%
Black, non-Hispanic	In-Person	83,318,813 99.8%	59,162,705 89.8%	70,809,741 91.6%	-29.0%	19.7%
	Telehealth	191,261 0.2%	6,705,333 10.2%	6,457,066 8.4%	3405.9%	-3.7%
	Total	83,510,074	65,868,038	77,266,807	-21.1%	17.3%
Native Hawaiian/Pacific Islander, non-Hispanic	In-Person	3,625,313 99.9%	2,431,661 86.9%	3,076,421 90.6%	-32.9%	26.5%
	Telehealth	4,498 0.1%	366,842 13.1%	319,956 9.4%	8055.7%	-12.8%
	Total	3,629,811	2,798,503	3,396,377	-22.9%	21.4%
Hispanic, all races	In-Person	121,828,869 99.8%	85,899,712 89.0%	103,074,407 90.4%	-29.5%	20.0%

	Telehealth	254,896 0.2%	10,626,753 11.0%	10,990,749 9.6%	4069.1%	3.4%
	Total	122,083,765	96,526,465	114,065,156	-20.9%	18.2%
White, non-Hispanic	In-Person	177,113,197 99.6%	132,955,197 89.3%	159,722,425 92.0%	-24.9%	20.1%
	Telehealth	717,490 0.4%	15,949,411 10.7%	13,900,081 8.0%	2122.9%	-12.8%
	Total	177,830,687	148,904,608	173,622,506	-16.3%	16.6%
Unknown	In-Person	87,995,241 99.6%	70,030,270 90.3%	90,280,100 93.1%	-20.4%	28.9%
	Telehealth	337,914 0.4%	7,502,540 9.7%	6,738,910 6.9%	2120.3%	-10.2%
	Total	88,333,155	77,532,810	97,019,010	-12.2%	25.1%

Source: ASPE analysis of T-MSIS claims, 2019-2021.
Notes: Table 2 reports the number and share of Medicaid and CHIP services by delivery method for children ages 0-18 by race and ethnicity. The denominator used to calculate the share of services by delivery method is the total number of Medicaid and CHIP services that year.

Figure 4 shows the distribution of Medicaid and CHIP services delivered via telehealth to children ages 0-18 by race and ethnicity from Q1 2019 to Q4 2021. It shows that in comparison to the consistent annual distribution of Medicaid and CHIP enrollment by race and ethnicity (Appendix Table 3), there has been fluctuation in the distribution of telehealth delivered services by race and ethnicity. Prior to the COVID-19 pandemic, non-Hispanic White enrollees comprised the greatest share of all services delivered by telehealth at an average of 45.8 percent in 2019, while comprising 37.2 percent of the Medicaid and CHIP enrollee count. Racial and ethnic groups such as Hispanic and non-Hispanic Black enrollees accessed services delivered via telehealth at disproportionately lower rates than their share of the enrollee pool – for example, non-Hispanic Black enrollees made up 18.4 percent of the Medicaid and CHIP enrollee pool in 2019, while making up an average of 12.2 percent of services delivered via telehealth. This difference narrowed by Q1 2020 until the end of the study period of Q4 2021, as enrollees of all racial and ethnic groups increased their usage of services delivered via telehealth. Appendix Table 4 has additional data on the number and distribution of services delivered via telehealth by race and ethnicity not shown in Figure 4.

Figure 4. Distribution of Medicaid and CHIP Services Delivered by Telehealth by Race and Ethnicity, Ages 0-18 (Q1 2019 – Q4 2021)



Source: ASPE analysis of T-MSIS claims, 2019-2021.
Notes: Figure 3 shows the distribution of Medicaid and CHIP services delivered by telehealth to enrollees 0-18 years, by race and ethnicity group and quarter. The denominator is the total number of Medicaid and CHIP services delivered by telehealth each quarter to all children ages 0-18. The numerator is the total number of services delivered by telehealth each quarter, to children ages 0-18 in each race and ethnicity group.

DISCUSSION

Similar to the overall Medicaid and CHIP population,**Error! Bookmark not defined.** this analysis of T-MSIS data found that telehealth utilization increased for Medicaid and CHIP enrollees ages 0-18 years from 2019 to 2021, with the greatest increase occurring in the first half of 2020. Multiple factors likely contributed to the rapid increase in the provision and uptake of services delivered via telehealth, including but not limited to state issuance of PHE-related stay-at-home orders, triaging of in-person appointments by healthcare systems, and patient and family preferences for services delivered via telehealth.[12] However, expanded services delivered via telehealth only partially offset the decline in pediatric in-person services, as total Medicaid and CHIP services remained below pre-PHE levels as of 2021.

Relative to their use of total and in-person services, infants under a year old and children ages 1-5 used a smaller share of services delivered via telehealth from 2019 to 2021 compared to children ages 6-11 and adolescents ages 12-18. The youngest enrollees also experienced the greatest percentage increase in services delivered via telehealth from 2019 to 2020, followed by the greatest percentage decrease in services delivered via telehealth from 2020 to 2021. Collectively, these findings may reflect an emphasis on in-person visits for younger children, who receive frequent growth and developmental assessments, screenings, vaccinations, and other health services that either require or greatly benefit from in-person assessment. The persistence of telehealth for adolescents ages 12-18, although down from its early-2020 peak, is also notable.

There were also differences in pediatric telehealth service trends by race and ethnicity. Prior to Q2 2020, non-Hispanic White children utilized a larger share of services delivered via telehealth relative to their share of the Medicaid and CHIP enrollee pool; however, by the end of 2021, shares of services delivered via telehealth more closely reflected the enrollee distribution for most racial and ethnic groups.

There was notable growth in utilization of services delivered via telehealth for non-Hispanic Black, Asian, and Hispanic children. These findings are consistent with a prior ASPE analysis in this series, which reported an increase in telehealth utilization among non-Hispanic Black and Hispanic Medicaid and CHIP enrollees, as well as more representative telehealth utilization by race and ethnicity overall in 2021 compared to 2019. Expanded use of services delivered via telehealth may reflect increasing public awareness of telehealth as a mode of service delivery, increased offerings by healthcare providers and institutions for services delivered via telehealth, and increased parent and/or child preferences for appointments via telehealth.

Additionally, although low prior to 2020,[13,14,15] adoption of pediatric services delivered via telehealth has greatly increased since the declaration of the COVID-19 PHE in January 2020. A prior ASPE report in this series found that Medicaid and CHIP enrollees ages 0-18 had over 15.2 million services delivered via telehealth in Q2 2020 – a 697.6 percent increase from the previous quarter.[Error! Bookmark not defined.] Several factors may have contributed to the rapid increase in utilization of pediatric services delivered via telehealth during this period, including but not limited to pandemic-related disruptions to the delivery of in-person care, increased demand for remote healthcare services, and new federal and state Medicaid policy flexibilities related to reimbursement, provider licensing, and patient privacy.[16]

CONCLUSION

This report describes changes in services delivered in-person and via telehealth to child Medicaid and CHIP enrollees in the years before and during the COVID-19 PHE, from 2019 to 2021. Pediatric telehealth utilization rapidly expanded in the first half of 2020 and remained above 2019 levels as of 2021. However, services delivered via telehealth not completely offset a decline in in-person services, as seen in the lower number of total Medicaid and CHIP services in 2021 compared to 2019.

Telehealth was an important mode of service delivery during the PHE, helping to ensure child Medicaid and CHIP enrollees had access to healthcare in a rapidly changing public health and policy environment and blunting the impact of a drop-off in-person services. However, barriers to telehealth service delivery – such as a lack of available and affordable broadband internet services, particularly in households with low income and in rural areas,[17,18] may have affected utilization patterns for services delivered via telehealth in Medicaid and CHIP, in addition to parent, child, and/or provider preferences for services delivered in-person. Utilization of services delivered via telehealth in the post-PHE period will continue to be shaped by these and other factors, including pending federal and state decisions to rescind or renew PHE-related flexibilities in telehealth policy.

APPENDIX

Appendix Table 1. Total and Telehealth Only Medicaid and CHIP Services Delivered to Enrollees Ages 0-18 by Method and State (2019 – 2021)

	Total (Telehealth & In-Person)			Telehealth Only		
	2019	2020	2021	2019	2020	2021
All	480,655,487	395,714,213	469,493,946	1,536,041	41,573,618	38,777,378
AK	1,301,856	1,023,227	1,125,866	11,065	122,165	101,609
AL	7,411,036	6,311,028	7,400,813	14,285	459,381	325,070
AR	9,445,715	8,645,530	10,189,665	31,164	736,006	404,586
AZ	17,716,773	14,710,561	15,621,669	500,709	2,297,683	2,075,990
CA	54,301,019	42,453,274	48,074,557	170,058	5,711,323	6,832,908
CO	4,688,584	4,312,483	5,238,737	7,627	551,982	454,503
CT	4,750,816	3,758,133	4,620,172	241	939,320	755,436
DC	688,882	434,484	642,804	482	98,186	117,182
DE	1,126,615	830,763	970,085	5,977	124,509	102,006
FL	29,485,629	25,881,892	33,210,292	72,876	2,897,958	2,736,718
GA	12,249,029	10,258,497	12,720,075	54,511	1,296,635	1,225,592
HI	905,456	692,363	857,669	4,179	67,337	95,703
IA	4,648,092	3,688,666	4,494,932	27,586	302,456	211,702
ID*	2,836,037	2,400,624	2,835,250	5,078	251,818	178,833
IL	14,435,709	10,622,722	13,301,360	14,290	672,980	807,267
IN	6,818,692	7,148,400	8,730,354	13,466	951,442	530,418
KS	5,378,175	4,804,165	4,841,804	47,985	587,788	344,714
KY	8,563,894	6,861,763	8,271,544	19,035	789,474	685,484
LA	19,478,405	15,657,626	18,525,403	16,345	1,302,852	1,082,366
MA	15,257,466	13,151,266	14,569,194	3,236	2,324,747	2,195,894
MD	13,075,355	10,263,779	11,530,688	18,213	1,088,659	1,140,625
ME	2,227,441	1,784,609	2,041,337	21,063	304,016	254,092
MI	8,846,318	6,995,086	8,604,590	36,830	1,089,665	1,074,152
MN	9,616,686	7,220,328	9,079,447	25,214	936,991	775,444
MO*	7,208,473	6,473,956	7,546,709	30,306	391,127	249,529
MS	4,574,587	3,797,070	4,425,796	9,112	414,093	315,556
MT	1,531,028	1,331,307	1,471,521	5,954	139,226	83,839
NC	14,558,932	12,142,012	13,924,150	33,736	1,462,355	1,267,820
ND	596,918	555,107	771,885	3,454	40,333	31,591
NE*	1,738,405	1,526,860	1,871,864	4,203	152,970	104,665
NH	1,271,025	1,191,606	1,527,624	634	224,662	234,049
NJ	17,848,209	14,396,385	18,083,294	3,695	369,669	361,825
NM	3,832,616	3,135,250	3,596,115	24,342	455,390	476,368
NV	3,474,739	2,886,042	3,344,661	7,947	254,901	224,984
NY	39,357,575	30,766,520	38,998,656	5,131	1,147,114	1,124,305
OH	18,770,666	15,456,083	17,183,497	26,091	1,693,620	1,370,086
OK*	6,626,298	5,816,788	6,597,139	14,434	691,302	489,460
OR	3,795,125	3,071,581	3,432,416	26,438	568,687	543,315
PA	15,963,586	15,257,596	17,845,860	14,217	721,333	1,467,886
PR	1,421,231	1,179,836	1,670,285	145	221,001	201,819
RI	3,135,940	2,372,220	2,862,082	178	474,631	381,124
SC	9,613,212	7,170,092	8,882,425	12,581	492,745	326,509
SD	1,223,048	1,055,987	1,266,145	3,794	43,981	22,376

TN	9,221,324	7,874,094	9,163,365	22,775	815,276	575,929
TX	42,483,842	33,913,953	40,507,287	128,714	3,686,713	3,297,441
UT*	2,127,822	2,093,979	2,658,979	986	108,421	86,731
VA	8,689,492	7,242,564	8,547,182	22,101	775,220	770,210
VI	20,172	16,065	23,519	1	562	630
VT	1,543,075	1,276,296	1,465,555	70	10,049	8,760
WA	2,072,413	1,523,852	1,749,187	1,764	140,494	120,449
WI	2,176,202	1,819,184	2,077,813	9,604	139,115	110,734
WV	525,852	460,659	500,628	2,119	33,255	21,094
WY	1,301,856	1,023,227	1,125,866	11,065	122,165	101,609

Notes: *Several states implemented Medicaid expansion during these time frames, which impacted the total number of services delivered as increased coverage of parents in the expansion category may have resulted in increases in their children getting covered and/or utilizing services. Idaho implemented Medicaid expansion January 1, 2020, with enrollment beginning November 1, 2019. Utah implemented Medicaid expansion on January 1, 2020, Nebraska on October 1, 2020, and Oklahoma on July 1, 2021. Missouri implemented Medicaid expansion, processing applications beginning October 1, 2021, with coverage retroactive to July 1, 2021.

Appendix Table 2. Number and Distribution of Medicaid and CHIP Services Delivered to Enrollees Ages 0-18, by Telehealth by Age Group (Q1 2019 – Q4 2021)

	Age <1	Ages 1-5	Ages 6-11	Ages 12-18
Q1 2019	705	29,763	139,375	207,545
	0.2%	7.9%	36.9%	55.0%
Q2 2019	2,137	33,131	134,449	204,189
	0.6%	8.9%	36.0%	54.6%
Q3 2019	4,215	37,105	136,001	203,431
	1.1%	9.7%	35.7%	53.4%
Q4 2019	6,881	46,126	161,870	219,464
	1.6%	10.6%	37.3%	50.5%
Q1 2020	15,502	342,574	666,029	883,002
	0.8%	18.0%	34.9%	46.3%
Q2 2020	192,388	3,008,522	5,524,711	6,484,534
	1.3%	19.8%	36.3%	42.6%
Q3 2020	210,907	2,289,610	4,506,203	5,298,529
	1.7%	18.6%	36.6%	43.1%
Q4 2020	289,783	2,307,513	5,072,063	5,568,713
	2.2%	17.4%	38.3%	42.1%
Q1 2021	34,091	2,066,149	4,999,822	6,303,536
	0.3%	15.4%	37.3%	47.0%
Q2 2021	77,098	1,615,417	3,721,301	4,983,698
	0.7%	15.5%	35.8%	47.9%
Q3 2021	113,758	1,363,924	2,809,768	3,975,158
	1.4%	16.5%	34.0%	48.1%
Q4 2021	157,010	1,306,365	2,682,241	3,700,470
	2.0%	16.6%	34.2%	47.2%

Source: ASPE analysis of T-MSIS claims, 2019-2021.

Notes: Appendix Table 2 shows the number and distribution of services delivered by telehealth that were utilized by each age group, by quarter. The denominator is the count of total quarterly services delivered by telehealth for children ages 0-18, while the numerator is the count of total quarterly services delivered by telehealth of each age group.

Appendix Table 3. Number and Distribution of Medicaid and CHIP Enrollees of All Ages by Race and Ethnicity (2019-2021)

Race and Ethnicity	2019	2020	2021
All	94,112,484	94,784,176	101,018,800
White, non-Hispanic	35,003,387 (37.2%)	35,189,028 (37.1%)	37,165,946 (36.8%)
Hispanic, all races	21,712,114 (23.1%)	21,613,588 (22.8%)	22,734,206 (36.8%)
Black, non-Hispanic	17,307,168 (18.4%)	17,287,437 (18.2%)	18,229,053 (18.0%)
Asian, non-Hispanic	3,972,356 (4.2%)	3,974,924 (4.2%)	4,190,712 (4.1%)
American Indian and Alaska Native, non-Hispanic	1,317,679 (1.4%)	1,321,696 (1.4%)	1,426,923 (1.4%)
Hawaiian/Pacific Islander, non-Hispanic	675,107 (0.7%)	669,866 (0.7%)	719,290 (0.7%)
Unknown	14,124,673 (15.0%)	14,727,637 (15.5%)	16,552,670 (16.4%)

Source: ASPE analysis of T-MSIS claims, 2019-2021

Notes: Appendix Table 3 reports the number and distribution of Medicaid and CHIP enrollees by race and ethnicity for all 50 states, DC, PR, and VI. The denominator used to calculate the percentages is the total number of Medicaid and CHIP enrollees in that year.

Appendix Table 4. Number and Distribution of Medicaid and CHIP Services Delivered by Telehealth to Enrollees Ages 0-18, by Race and Ethnicity (Q1 2019 – Q4 2021)

	American Indian and Alaska Native, non-Hispanic	Asian, non-Hispanic	Black, non-Hispanic	Native Hawaiian/ Pacific Islander, non-Hispanic	Hispanic, all races	White, non-Hispanic	Unknown
Q1 2019	10,341	4,421	45,098	1,167	64,911	172,870	78,580
	2.7%	1.2%	12.0%	0.3%	17.2%	45.8%	20.8%
Q2 2019	10,932	3,920	45,270	1,093	59,996	171,251	81,444
	2.9%	1.0%	12.1%	0.3%	16.0%	45.8%	21.8%
Q3 2019	10,645	3,798	46,718	1,025	58,299	174,485	85,782
	2.8%	1.0%	12.3%	0.3%	15.3%	45.8%	22.5%
Q4 2019	11,642	4,629	54,175	1,213	71,690	198,884	92,108
	2.7%	1.1%	12.5%	0.3%	16.5%	45.8%	21.2%
Q1 2020	34,876	31,018	282,003	20,565	393,763	790,325	354,557
	1.8%	1.6%	14.8%	1.1%	20.6%	41.4%	18.6%
Q2 2020	228,926	289,892	2,361,698	153,177	3,516,276	5,944,054	2,716,132
	1.5%	1.9%	15.5%	1.0%	23.1%	39.1%	17.9%
Q3 2020	174,160	260,396	1,945,634	81,171	3,221,506	4,421,071	2,201,311
	1.4%	2.1%	15.8%	0.7%	26.2%	35.9%	17.9%
Q4 2020	188,336	302,100	2,115,998	111,929	3,495,208	4,793,961	2,230,540
	1.4%	2.3%	16.0%	0.8%	26.4%	36.2%	16.8%
Q1 2021	185,326	318,116	2,170,094	110,533	3,548,543	4,826,299	2,244,687
	1.4%	2.4%	16.2%	0.8%	26.5%	36.0%	16.7%
Q2 2021	139,014	261,044	1,727,144	87,836	2,836,905	3,581,759	1,763,812
	1.3%	2.5%	16.6%	0.8%	27.3%	34.4%	17.0%
Q3 2021	105,249	198,733	1,308,075	60,369	2,430,157	2,760,875	1,399,150
	1.3%	2.4%	15.8%	0.7%	29.4%	33.4%	16.9%

Q4 2021	103,506	192,056	1,251,753	61,218	2,175,144	2,731,148	1,331,261
	1.3%	2.4%	16.0%	0.8%	27.7%	34.8%	17.0%

Source: ASPE analysis of T-MSIS claims, 2019-2021.

Notes: Appendix Table 4 shows the number and distribution of quarterly Medicaid and CHIP services delivered by telehealth to enrollees 0-18 years, by race and ethnicity group. The denominator is the total number of Medicaid and CHIP services delivered by telehealth each quarter to all children ages 0-18. The numerator is the total number of services delivered by telehealth each quarter, to children ages 0-18 in each race and ethnicity group.

REFERENCES

[1] Centers for Medicare & Medicaid Services. Telehealth. Medicaid.gov. Accessed at: https://www.medicaid.gov/medicaid/benefits/telehealth/index.html

[2] Health Resources & Services Administration. Telehealth for direct-to-consumer care: Synchronous direct-to-consumer telehealth. Telehealth.HHS.gov. Accessed at: https://telehealth.hhs.gov/providers/best-practice-guides/direct-to-consumer/synchronous-direct-to-consumer-telehealth

[3] Health Resources & Services Administration. Telehealth for direct-to-consumer care: Asynchronous direct-to-consumer telehealth. Telehealth.HHS.gov. Accessed at: https://telehealth.hhs.gov/providers/best-practice-guides/direct-to-consumer/asynchronous-direct-to-consumer-telehealth

[4] Olson CA, McSwain SD, Curfman AL, Chuo J. The Current Pediatric Telehealth Landscape. Pediatrics. 2018;141(3):e20172334. doi:10.1542/peds.2017-2334

[5] Uscher-Pines L, McCullough C, Dworsky MS, et al. Use of Telehealth Across Pediatric Subspecialties Before and During the COVID-19 Pandemic [published correction appears in JAMA Netw Open. 2022 Apr 1;5(4):e2213283]. JAMA Netw Open. 2022;5(3):e224759. Published 2022 Mar 1. doi:10.1001/jamanetworkopen.2022.4759

[6] Hsu N, Monasterio E, Rolin O. Telehealth in Pediatric Rehabilitation. Phys Med Rehabil Clin N Am. 2021;32(2):307-317. doi:10.1016/j.pmr.2020.12.010

[7] Dorsey ER, Topol EJ. State of Telehealth. N Engl J Med. 2016;375(2):154-161. doi:10.1056/NEJMra1601705

[8] Centers for Medicare & Medicaid Services. State Medicaid & CHIP Telehealth Toolkit: Policy Considerations for States Expanding Use of Telehealth (COVID-19 Version). Accessed at: https://www.medicaid.gov/sites/default/files/2023-07/medicaid-chip-telehealth-toolkit.pdf

[9] Chu RC, Peters C, De Lew N, Sommers BD. Issue Brief: State Medicaid Telehealth Policies Before and During the COVID-19 Public Health Emergency. Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. Published: July 2021. Accessed at: https://aspe.hhs.gov/sites/default/files/2021-07/medicaid-telehealth-brief.pdf

[10] Lee A, Peters C, DeLew N, Buchmueller T. Trends in Medicaid and CHIP Telehealth, 2019-2021 Part I: Medicaid and CHIP Telehealth Utilization by Enrollee Characteristics (Issue Brief No. HP-202416). Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. August 2024. Accessed at: https://aspe.hhs.gov/reports/medicaid-chip-telehealth-utilization-enrollee-characteristics-2019-2021

[11] Warrier A, Whitman A, Lee A, Branham DK, Peters C, DeLew N, Buchmueller T. Trends in Medicaid and CHIP Telehealth, 2019-2021 Part II: Medicaid and CHIP Telehealth Utilization Trends by Enrollee and Provider Rurality (Issue Brief No. HP-2024-27). Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. December 2024. Accessed at: https://aspe.hhs.gov/reports/medicaid-chip-telehealth-utilization-enrollee-provider-rurality-2019-2021

[12] When State Stay-at-Home Orders Due to Coronavirus Went into Effect. April 9, 2020. Kaiser Family Foundation. Accessed at: https://www.kff.org/other/slide/when-state-stay-at-home-orders-due-to-coronavirus-went-into-effect/

[13] Sisk B, Alexander J, Bodnar C, et al. Pediatrician Attitudes Toward and Experiences With Telehealth Use: Results From a National Survey. Acad Pediatr. 2020;20(5):628-635. doi:10.1016/j.acap.2020.05.004

[14] Ray KN, Mehrotra A, Yabes JG, Kahn JM. Telemedicine and Outpatient Subspecialty Visits Among Pediatric Medicaid Beneficiaries. Acad Pediatr. 2020;20(5):642-651. doi:10.1016/j.acap.2020.03.014

[15] Barnett ML, Ray KN, Souza J, Mehrotra A. Trends in Telemedicine Use in a Large Commercially Insured Population, 2005-2017. JAMA. 2018;320(20):2147-2149. doi:10.1001/jama.2018.12354

[16] Center for Connected Health Policy. COVID-19 Telehealth Coverage Policies. cchpca.org. Published March 19, 2021. Accessed at: https://www.cchpca.org/resources/covid-19-telehealth-coverage-policies/

[17] Swenson K, Gherter R, People in Low-Income Households have Less Access to Internet – 2019 Update. Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. March 2021. Accessed at: https://aspe.hhs.gov/reports/low-income-internet-access

[18] Martin M. Computer and Internet Use in the United States: 2018 (American Community Survey Report ACS-49). Washington, DC: U.S. Census Bureau. Accessed at: https://www.census.gov/content/dam/Census/library/publications/2021/acs/acs-49.pdf

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Office of the Assistant Secretary for Planning and Evaluation

200 Independence Avenue SW, Mailstop 447D
Washington, D.C. 20201

For more ASPE briefs and other publications, visit:
aspe.hhs.gov/reports

ABOUT THE AUTHORS
Caroline Hogan was an ORISE Fellow in the Office of Health Policy in ASPE.
Aiden Lee is a Public Health Analyst in the Office of Health Policy in ASPE.
Christie Peters is the Director of the Division of Health Care Access and Coverage for the Office of Health Policy in ASPE.
Nancy De Lew is the Associate Deputy Assistant Secretary of the Office of Health Policy in ASPE.

SUGGESTED CITATION
Hogan, C., Lee, A., Peters, C., De Lew, N. Trends in Medicaid and CHIP Telehealth Part III: Telehealth Utilization Trends Among Child Enrollees, 2019-2021 (Issue Brief No. HP-2025-07). Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. January 2025.

Subscribe to ASPE mailing list to receive email updates on new publications:
https://list.nih.gov/cgi-bin/wa.exe?SUBED1=ASPE-HEALTH-POLICY&A=1

For general questions or general information about ASPE:
aspe.hhs.gov/about