

2024

VERMONT

TELEHEALTH SERVICES

Before and During the
COVID-19 Public Health
Emergency

Vermont Program for Quality in
Health Care, Inc.
Policy Integrity, LLC



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Executive Summary

During the COVID-19 Public Health Emergency (PHE), telehealth became an essential tool for providers and patients to minimize the spread of COVID-19 and support continuity of care.

Under 18 VSA § 9416, and in alignment with Act 6 of 2021, Vermont Department of Health contracted with VPQHC and Policy Integrity, LLC to examine Vermont population-level telehealth trends based on claims data for 2018-2022.

Key findings include:

- Telehealth services appear to have primarily been used as a substitute for in-person services.
- Use of telehealth services varied by patient age, patient sex, diagnosis category, provider specialty, and payer.
- Mental health services accounted for almost 80 percent of all telehealth services during the PHE. Still, only 4.4% of these services were audio-only.
- During the PHE, over 90% of Vermonters' telehealth services were received from providers practicing in Vermont, New Hampshire, and Massachusetts. Vermont's share rose dramatically.
- In 2022, about two-thirds of *audio-visual* telehealth services were provided by mental health and behavioral health specialists. In contrast, *audio-only* services were more often provided by primary care providers.

Introduction and Background

This report examines population-level trends in telehealth use in Vermont before and during the COVID-19 Public Health Emergency (PHE), with an emphasis on audio-only services in Vermont during calendar year 2022.

According to the federal Department of Health and Human Services¹

“Telehealth — sometimes called telemedicine — lets your health care provider care for you without an in-person office visit. Telehealth is done primarily online with internet access on your computer, tablet, or smartphone.

There are several options for telehealth care:

- **Talk to your health care provider live** over the phone or video chat.
- **Send and receive messages** from your health care provider using secure messaging, email, and secure file exchange.
- **Use remote monitoring** so your health care provider can check on you at home. For example, you might use a device to gather vital signs to help your health care provider stay informed on your progress.”

In this report, the term ‘telehealth’ will be used to describe both audio-visual (using a camera and screen) and audio-only (using a telephone).

During the onset of the pandemic, telehealth expanded significantly, and payers, such as the Centers for Medicare & Medicaid Services, paid for nearly all services provided through virtual care in the same manner as they reimbursed in-person services.^{2,3}

Now that the PHE has ended,⁴ there is a question as to whether payers should continue to reimburse services in the same manner or whether the delivery and payment of telehealth should recede back to pre-pandemic times, in which services, originating sites, and modalities were restricted.⁵

Under 18 VSA § 9416, the Vermont Department of Health (VDH) contracted with the Vermont Program for Quality in Health Care, Inc. (VPQHC) and Policy Integrity, LLC to produce a report outlining population-level trends in telehealth use in Vermont, utilizing the Vermont Healthcare Uniform Reporting & Evaluation System (VHCURES).⁶ In alignment with Act 6 of 2021, dated March 29, 2021, VDH

¹ <https://telehealth.hhs.gov/patients/understanding-telehealth>

² Text - H.R.748 - 116th Congress (2019 to 2020) - CARES Act Congress.gov. <https://www.congress.gov/bill/116th-congress/house-bill/748/text>.

³ U.S. Centers for Medicare & Medicaid Services. Coronavirus Waivers & Flexibilities. NEW—Waivers & Flexibilities for Health Care Providers. U.S. Centers for Medicare & Medicaid Services. <https://www.cms.gov/coronavirus-waivers>.

⁴ COVID-19 Public Health Emergency, US Department of Health and Human Services. <https://www.hhs.gov/coronavirus/covid-19-public-health-emergency/index.html>.

⁵ Demaerschalk BM, et al. Quality Frameworks for Virtual Care: Expert Panel Recommendations. *Mayo Clin Proc Innov Qual Outcomes*. 2022 Dec 29;7(1):31-44. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9811201/>.

⁶ Appendix 1 contains a description of the VHCURES dataset.

also contracted with VPQHC and Policy Integrity, LLC to track and stay current on the research related to healthcare quality, and audio-only telehealth.

In January 2022, VPQHC received permission for VDH to redisclose VHCURES data under their data use agreement with the Green Mountain Care Board (GMCB). This report addresses one of the research aims: to track population-level trends in telehealth use in Vermont and review historical data to determine a baseline. The second research aim, to examine the quality of care delivered through telehealth, including audio-only telemedicine, remains a consideration for future research. VPQHC maintains an audio-only telemedicine and clinical quality tracking sheet on its website.⁷

In October 2023, VPQHC, along with Policy Integrity, Department of Financial Regulation (DFR), and Green Mountain Care Board (GMCB), convened meetings with providers⁸ and payers⁹ to collaborate on this analysis.

Methodology

Data Source

The data used in the creation of this report come from the Vermont Health Care Uniform Reporting and Evaluation System (VHCURES). VHCURES is managed by the Green Mountain Care Board (GMCB) and contains claim and eligibility information for Medicare and Medicaid beneficiaries and for most Vermonters covered by private insurance. It is important to understand that VHCURES only includes services that generated a paid claim. Forms of communication that can be included in telehealth, such as some uses of gateways such as MyChart, are not included in this report. For additional information on methodological details and VHCURES, see Appendices 1 and 2.

Telehealth Claims

Audio-visual and audio-only telehealth claims were identified by procedure codes, procedure code modifiers, and place of service codes. See Appendix 2 for additional methodological details. These definitions changed frequently over the last four years, particularly what services are covered (procedure codes). Multiple iterations of coding rules and systems were necessary to ultimately land on the core shared elements that were consistent across payers for coding, tracking, and analyzing telehealth claims. During that time, DFR promulgated two rules¹⁰ that address coverage and coding for audio-only claims.

Development of an analytic approach requires a balance between specificity (e.g., time-period specific identification of claims) and simplicity. For this report, identification was based on procedure code modifier and place of service. The code list may be found in Appendix 2. While the requirements for these differ among payers, they have been much more stable over time than procedure code lists. Requirements were identified in each payer's provider policy documents¹¹.

⁷ Vermont Program for Quality in Health Care, Inc., <https://www.vpqhc.org/audioonly-telemedicine>.

⁸ Bi-State Primary Care Association, Dartmouth Health, University of Vermont Health Network, Vermont Association of Hospitals and Health Systems, and Vermont Medical Society.

⁹ BlueCross and BlueShield Vermont, Cigna, Department of Vermont Health Access (Medicaid), and MVP.

¹⁰ See Appendix 5 for links to the rules.

¹¹ See Appendix 5 for links to these documents.

This analysis is limited to paid professional service claims¹² and claims that fall under a capitation agreement.

Telehealth services were selected based either on their place of service (telehealth provided in other than in patient's home, in patient's home, or other place of service) or their modifier (synchronous telemedicine service rendered via audio or via audio and video, or mental health telehealth service via audio).

Because of the differences in rules among private payers, analysis of private payer claims was limited to the three largest private payers – BlueCross BlueShield of Vermont (BCBSVT, including TVHP), CIGNA, and MVP. These three payers represent over 80% of services paid for by private payers. For comparative purposes, Table 1 includes all professional services paid for by Medicare, Medicaid, BCBSVT, CIGNA, and MVP. Telehealth services were identified in this table, using the criteria above. All date-based reporting is done by first date of service.

Time Period

Tables that present time series data include the years 2018 through 2022. The first two years provide a pre-COVID baseline. Tables do not include 2023 because full-year data are not available. Interpretation of 2022 data should be done with caution because, due to the time necessary for payers to process claims and submit them to the state contractor that manages VHCURES and for the contractor to edit and load the data, it is likely that services provided at the end of 2022 are not fully represented in the data, although we estimate that 97 to 98 percent are included.

Tables that focus on distributions are based on 2022 data. This is the most current year for which data are nearly complete.

An additional factor that must be kept in mind is that during the PHE, states were required to maintain enrollment of nearly all Medicaid enrollees. Thus, some of the increase in Medicaid services is the result of increased enrollment.

Statistics Used

Data are presented two ways – as counts and as rates.

- **Counts** are more informative when looking at the direct impact of telehealth.
- **Rates**¹³ are more useful when comparing the experiences of different populations, especially when the populations differ in size.

For example, patients aged 30-34 used over 21 times as many telehealth services in 2022 as patients aged 85-89 (93,462 vs. 4,361 services). However, because there are far fewer people in the older age group, the rate at which people aged 30-34 use telehealth services (3,603.8 / 1,000) is only about 6 times the rate of use by people aged 85-89 (585.1 / 1,000).

¹² The medical claim payment system defines two major types of services: 1) professional, services delivered by an individual such as a physician; and 2) facility, services delivered by a hospital, nursing home, or other organization.

¹³ Denominators for rates of services per 1,000 covered lives are published in Appendix 3.

Results

Professional Services: In-Person and Telehealth

Tables 1 summarizes all professional services paid for by Medicare, Medicaid, and the three private payers. Things of note include:

- A small number of telehealth services were being provided to Vermonters in the years before COVID.
- The total number of professional services, including both in-person and telehealth, dropped sharply in 2020, and returned to a level comparable to the pre-COVID period in 2021.
- Telehealth services in the period 2020-2022 represented about 11 percent of all services.
- During the COVID period, audio-only represented about six percent of telehealth services and about 0.5% of all services.
- The use of telehealth services during the COVID period varied somewhat among the private payers and Medicaid, typically between 10 and 20 percent of all professional services. Use by Medicare beneficiaries was substantially lower in each year, between four and eight percent.

Table 1. Professional Services by Modality, Payer, and Year, Vermont, 2018-2022

Counts

Percent Audio-Only

Payer	Service Type	Year				
		2018	2019	2020	2021	2022
Blue Cross Blue Shield	Audio-Only	*	*	1,517	1,352	7,580
	Audio-Visual	1,993	4,135	348,430	344,426	229,655
	In-Person	2,249,349	2,278,697	1,549,580	1,741,802	1,479,426
	Total			1,899,527	2,087,580	1,716,661
	Percent Audio-Only			0.1%	0.1%	0.4%
CIGNA	Audio-Only	25	31	2,266	1,168	541
	Audio-Visual	39	60	14,643	15,696	12,787
	In-Person	103,489	120,695	123,603	142,302	144,183
	Total	103,553	120,786	140,512	159,166	157,511
	Percent Audio-Only	0.0%	0.0%	1.6%	0.7%	0.3%
Medicaid	Audio-Only	*	*	39,130	29,068	25,707
	Audio-Visual	6,036	8,591	332,554	375,023	310,734
	In-Person	3,636,060	3,229,661	2,307,361	2,612,186	2,562,738
	Total			2,679,045	3,016,277	2,899,179
	Percent Audio-Only			1.5%	1.0%	0.9%
Medicare	Audio-Only	*	*	37,871	14,956	8,313
	Audio-Visual	4,904	6,706	172,129	142,848	107,089
	In-Person	2,957,271	2,934,886	2,447,929	2,646,430	2,492,567
	Total			2,657,929	2,804,234	2,607,969
	Percent Audio-Only			1.4%	0.5%	0.3%
MVP	Audio-Only	*	*	1,998	1,134	2,418
	Audio-Visual	263	595	66,596	72,387	53,936
	In-Person	335,675	406,466	408,010	500,308	517,352
	Total			476,604	573,829	573,706
	Percent Audio-Only			0.4%	0.2%	0.4%
Payer Total	Audio-Only	*	*	82,782	47,678	44,559
	Audio-Visual	348,647	425,958	934,352	950,380	714,201
	In-Person	8,946,169	8,563,939	6,836,483	7,643,028	7,196,266
	Total			7,853,617	8,641,086	7,955,026
	Percent Audio-Only			1.1%	0.6%	0.6%

* Place of service and modifier codes to identify audio-only services were not used consistently until 2020. Therefore, the number of audio-only claims in 2018 and 2019 cannot be calculated reliably.

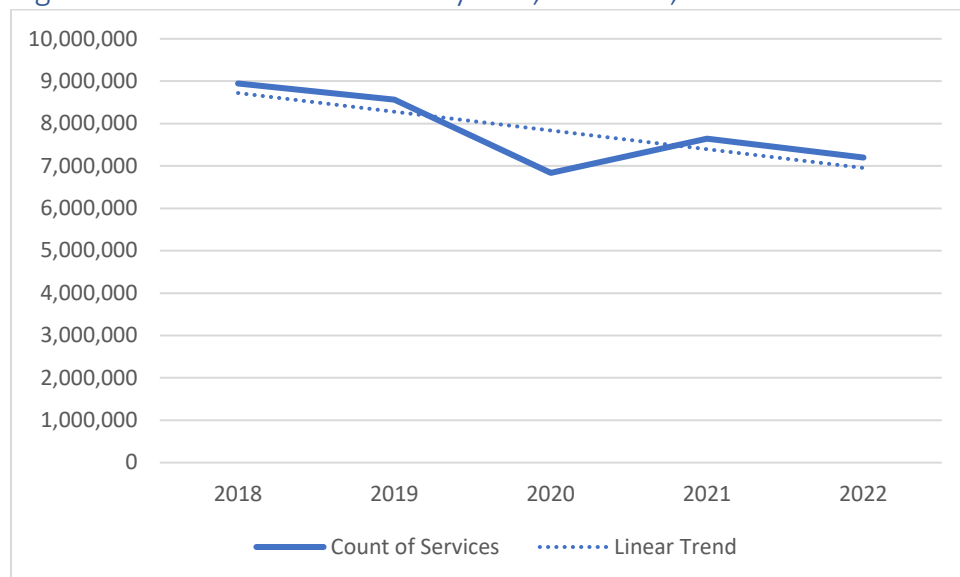
Looking at the same data through a rate lens (see Table 2), overall use of professional services by those covered by Medicare and Medicaid was higher than use by those with private coverage. However, audio-visual telehealth use shows a different pattern, with those covered by BCBSVT and Medicaid having the highest use rates. Audio-only use rates were lowest for BCBSVT and MVP.

Table 2. Professional Services by Modality, Payer, and Year, Vermont, 2020-2022
Services/1,000 Covered Lives

Payer	Service Type	2020	2021	2022
Blue Cross Blue Shield	Audio-Only	11.6	11.0	69.2
	Audio-Visual	2,672.6	2,794.8	2,096.8
	In-Person	11,885.9	14,133.5	13,507.5
	Total	14,570.2	16,939.2	15,673.5
CIGNA	Audio-Only	195.7	104.5	50.1
	Audio-Visual	1,264.6	1,404.9	1,185.0
	In-Person	10,674.4	12,736.7	13,361.9
	Total	12,134.7	14,246.1	14,597.1
Medicaid	Audio-Only	285.1	191.0	161.5
	Audio-Visual	2,423.3	2,463.7	1,952.6
	In-Person	16,813.8	17,160.7	16,104.2
	Total	19,522.3	19,815.4	18,218.4
Medicare	Audio-Only	305.4	124.3	68.0
	Audio-Visual	1,388.2	1,187.3	876.2
	In-Person	19,742.1	21,996.7	20,394.2
	Total	21,435.7	23,308.4	21,338.4
MVP	Audio-Only	46.5	25.9	57.3
	Audio-Visual	1,549.7	1,654.2	1,279.0
	In-Person	9,494.7	11,433.3	12,267.6
	Total	11,090.9	13,113.5	13,603.9
Payer Total	Audio-Only	185.5	105.8	100.4
	All Other Telehealth	2,094.3	2,108.7	1,609.1
	In-Person	15,323.3	16,958.1	16,213.5
	Total	17,603.2	19,172.6	17,923.1

Figure 1 presents total professional services paid for by the five payers included in this report, by year. There is a fairly large drop in 2020, the first year of the pandemic, followed by a rebound and a continuation of the general decline. There are several factors that could contribute to the decline, including changes in the market share of the payers included in the report or the number of people included in VHCURES.

Figure 1. Professional Services by Year, Vermont, 2018-2022



If we look at the same statistic by individual payer, we can see a similar pattern for the three largest payers (Medicaid, Medicare, and Blue Cross) but a steady increase in the other two private payers, MVP and CIGNA. (See Figure 2.)

Figure 2. Professional Services by Payer and Year, Vermont, 2018-2022

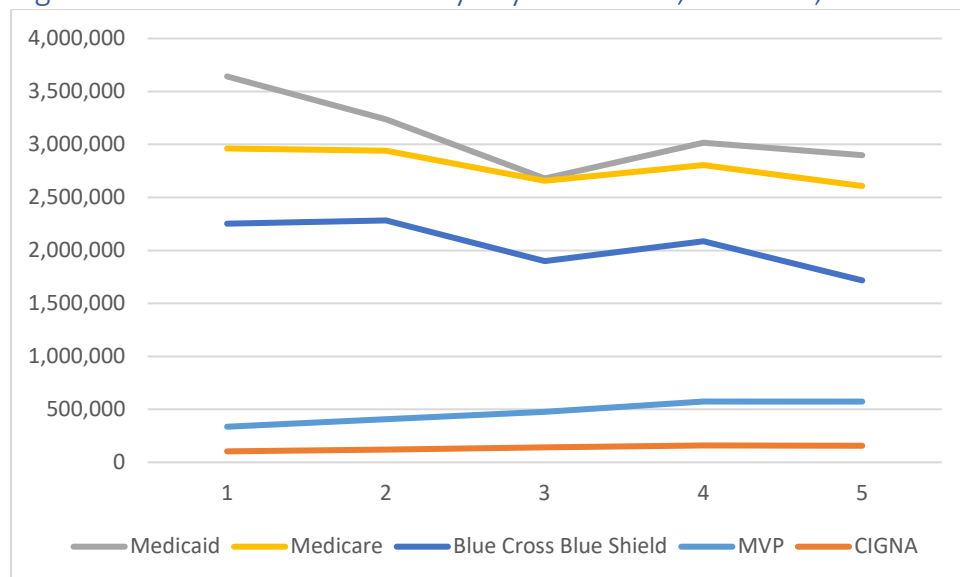
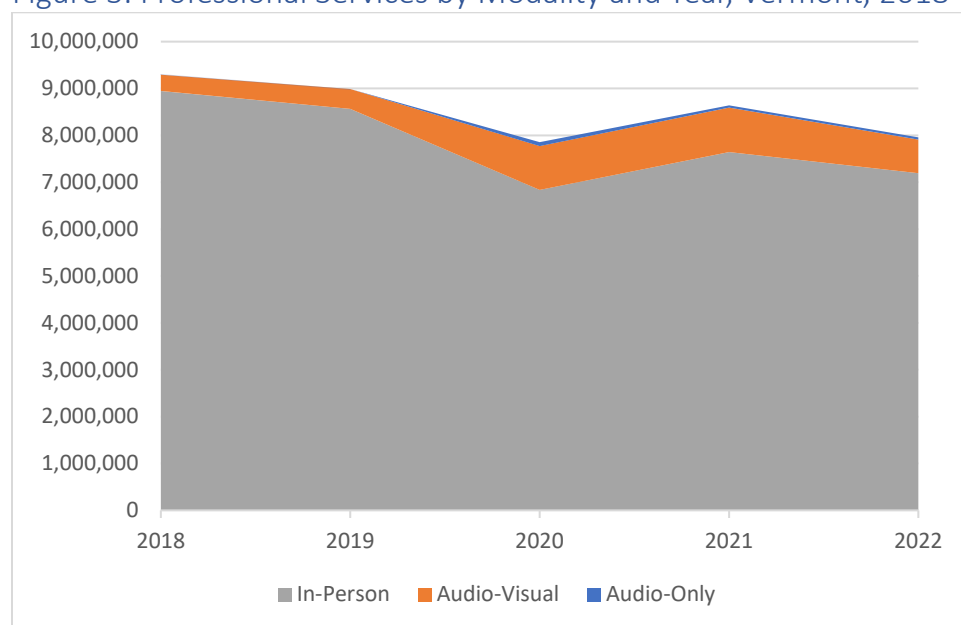


Figure 3 shows all professional services by treatment modality (in-person, audio-only telehealth, audio-visual telehealth) for the years 2018-2022. As can be seen, there is a very slight declining trend in the use of professional services, with a more significant short-term drop in 2020, the first year of the PHE. Telehealth services appear to have primarily been used as a substitute for in-person services. Audio-only services represented a very small proportion of total services. These trends are consistent with other organizations' analyses, shown in Appendix 6.

Figure 3. Professional Services by Modality and Year, Vermont, 2018-2022



Telehealth Services

Table 3 shows that the use of telehealth services varied substantially by age of patient, with the 26–40-year-old group accounting for about one-third of all services and the 16–65-year-old group accounting for over three-quarters. Use among seniors represented a lower percentage with increasing age. These findings may be in part due to the proportion of the general population represented by each age group.

During this time period, about twice as many telehealth services were provided to females as were provided to males. This pattern was seen across all but the youngest and oldest age groups. Figure 3 shows how this pattern persists after accounting for the population size of each sex and age group.

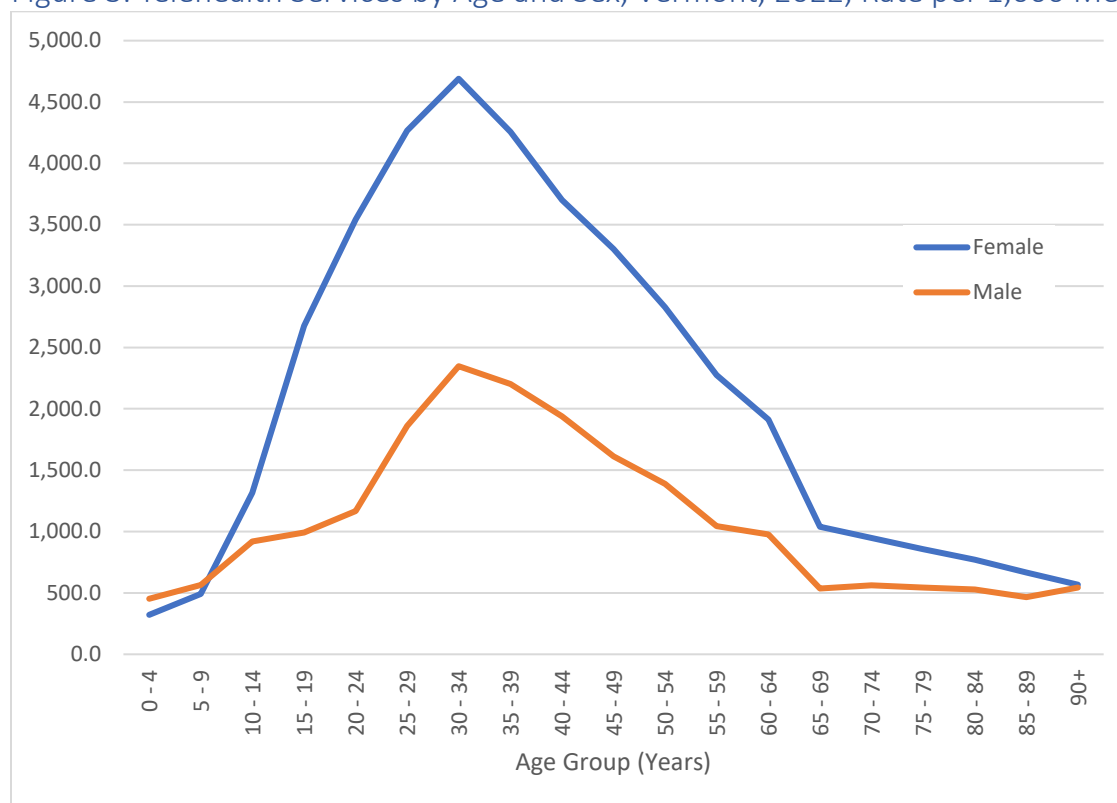
Table 3. Telehealth Services by Patient Age and Sex¹⁴, Vermont, 2022

Age Group (Years)	Count of Services			Services / 1,000 Members		
	Female	Male	Total	Female	Male	Total
0 – 4	3,283	4,922	8,205	321.5	452.5	389.1
5 – 9	5,779	7,060	12,839	491.2	564.9	529.2
10 – 14	16,419	12,237	28,656	1,314.7	919.2	1,110.6
15 – 19	33,515	13,303	46,818	2,676.1	993.5	1,806.7
20 – 24	41,927	13,071	54,998	3,541.5	1,167.4	2,387.5
25 – 29	52,776	18,847	71,623	4,267.9	1,860.6	3,183.9
30 – 34	65,243	28,219	93,462	4,689.7	2,347.3	3,603.8
35 – 39	58,118	26,187	84,305	4,255.8	2,202.7	3,300.3
40 – 44	47,243	22,317	69,560	3,702.1	1,939.7	2,866.5
45 – 49	37,545	16,874	54,419	3,302.6	1,613.5	2,493.3
50 – 54	36,643	16,788	53,431	2,828.0	1,389.3	2,133.7
55 – 59	32,418	13,733	46,151	2,274.4	1,043.6	1,683.6
60 – 64	32,361	14,699	47,060	1,911.9	976.7	1,471.7
65 – 69	20,866	10,188	31,054	1,039.7	534.9	793.9
70 – 74	15,779	8,856	24,635	948.1	563.0	761.0
75 – 79	10,063	5,703	15,766	856.6	544.3	709.4
80 – 84	5,525	3,086	8,611	770.0	529.4	662.2
85 – 89	2,954	1,407	4,361	666.2	466.0	585.1
90+	1,975	824	2,799	568.0	543.9	560.7
Total*	520,432	238,321	758,753	2,257.1	1,117.9	1,709.8

*Total excludes 7 services with unreported sex.

¹⁴ This report analyzes sex assigned at birth (Male/Female), rather than self-reported gender (Female/Male/Transgender/Different Term) due to how VHCURES data are collected. For more information about this distinction, please refer to the *OMB Report on SOGI Data for Federal Statistical Surveys*, <https://www.whitehouse.gov/wp-content/uploads/2023/01/SOGI-Best-Practices.pdf>.

Figure 3. Telehealth Services by Age and Sex, Vermont, 2022, Rate per 1,000 Members



Diagnostic Categories: Mental Health and Physical Health

Each service included in VHCURES includes a diagnosis. Diagnoses are coded using an international standard called ICD10-CM¹⁵. Each diagnosis consists of a letter, followed by two digits, a period, and up to three more digits. The initial letter identifies broad categories of disease such as neoplasms (cancers) and diseases of the respiratory system. A listing of all letters and their focus is included as Appendix 4.

The frequency of Category F, Mental, Behavioral and Neurodevelopmental disorders, is particularly striking, accounting for almost 80 percent of all telehealth services during the 2020-2022 period. This pattern appears in all three years and both sexes, as seen in Table 4.

When comparing quantities of service use, it is important to include the likely annual frequency of use by individuals. For example, mental health services are often provided on a regular recurrent basis (e.g., weekly) while other types of service may happen far less often in a year.

¹⁵ International Classification of Diseases, Clinical Modification, 10th revision, <https://www.cdc.gov/nchs/icd/icd-10-cm.htm>.

Table 4. Telehealth Services by Modality and Diagnostic Category, Vermont, 2022

Category	Description	Audio-Only	Audio-Visual	% of Total Audio-Only Services	% of Total Audio-Visual Services	% Audio-Only Services in Category
A	Infectious Diseases	108	1,014	0.2%	0.1%	9.6%
B	Infectious Diseases	180	1,171	0.4%	0.2%	13.3%
C	Neoplasms	1,079	3,780	2.4%	0.5%	22.2%
D	In Situ Neoplasms & Blood Diseases	527	2,299	1.2%	0.3%	18.6%
E	Metabolic Diseases	1,081	10,160	2.4%	1.4%	9.6%
F	Mental Disorders	27,669	599,710	62.1%	84.0%	4.4%
G	Nervous System Diseases	1,122	11,934	2.5%	1.7%	8.6%
H	Diseases of Eye & Ear	134	1,310	0.3%	0.2%	9.3%
I	Circulatory System Diseases	1,441	5,128	3.2%	0.7%	21.9%
J	Respiratory System Diseases	934	6,317	2.1%	0.9%	12.9%
K	Digestive System Diseases	681	4,969	1.5%	0.7%	12.1%
L	Diseases of Skin	355	3,697	0.8%	0.5%	8.8%
M	Musculoskeletal Diseases	2,460	13,995	5.5%	2.0%	14.9%
N	Genitourinary Diseases	996	5,207	2.2%	0.7%	16.1%
O	Diseases of Pregnancy & Childbirth	95	509	0.2%	0.1%	15.7%
Q	Congenital Malformations & Chromosomal Abnormalities	65	476	0.1%	0.1%	12.0%
R	Signs & Symptoms	2,228	18,177	5.0%	2.5%	10.9%
S	Injury & Poisoning	235	1,194	0.5%	0.2%	16.4%
T	Injury & Poisoning	61	477	0.1%	0.1%	11.3%
U	Special Purposes	833	4,776	1.9%	0.7%	14.9%
P,V,Y	All Other	*	148	*	0.0%	*
Z	Health Status Factors	2,270	17,753	5.1%	2.5%	11.3%
Total**		44,554	714,201			

* Counts or percentages based on fewer than 11 services are suppressed.

**Audio-Only Total excludes cells with fewer than 11 services.

However, the pattern of use is quite different between Category F and all other diagnoses when we look at age. (See Table 5, Table 6, and Figure 4.) Services with a diagnosis in Category F account for over 90 percent of all telehealth use in ages 10 to 34, declining as age increases. The difference between use of audio-only and audio-visual is also age-dependent, rising from three percent for the youngest age group to 14 percent for the oldest. One possible explanation for this is the difference in availability of a device that supports audio-visual communications.

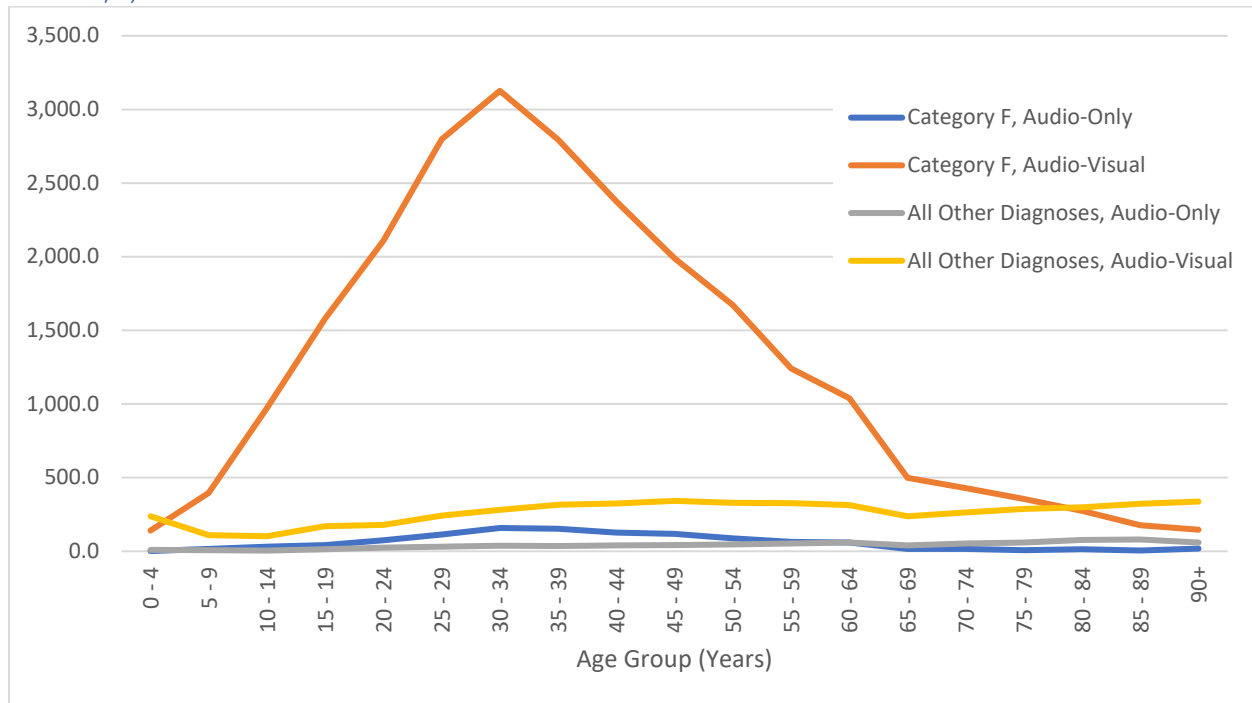
Table 5. Telehealth Services by Modality, Age, and Diagnostic Category, Vermont, 2022

Age Group (Years)	Category F Diagnoses		All Other Diagnoses		Percent Category F	Percent Audio-Only
	Audio-Only	Audio-Visual	Audio-Only	Audio-Visual		
0 - 4	37	2,972	188	5,008	36.7%	2.7%
5 - 9	374	9,624	178	2,663	77.9%	4.3%
10 - 14	796	25,103	122	2,638	90.4%	3.2%
15 - 19	1,072	40,956	349	4,441	89.8%	3.0%
20 - 24	1,701	48,562	592	4,145	91.4%	4.2%
25 - 29	2,545	62,935	691	5,454	91.4%	4.5%
30 - 34	4,106	81,080	984	7,292	91.1%	5.4%
35 - 39	3,893	71,398	926	8,088	89.3%	5.7%
40 - 44	3,092	57,645	948	7,875	87.3%	5.8%
45 - 49	2,602	43,402	942	7,473	84.5%	6.5%
50 - 54	2,195	41,852	1,142	8,242	82.4%	6.2%
55 - 59	1,752	34,038	1,429	8,932	77.5%	6.9%
60 - 64	1,920	33,226	1,873	10,041	74.7%	8.1%
65 - 69	631	19,538	1,596	9,289	64.9%	7.2%
70 - 74	490	13,897	1,708	8,540	58.4%	8.9%
75 - 79	151	7,871	1,332	6,412	50.9%	9.4%
80 - 84	188	3,560	991	3,872	43.5%	13.7%
85 - 89	37	1,324	598	2,402	31.2%	14.6%
90 +	87	727	301	1,684	29.1%	13.9%
Total	27,669	599,710	16,890	114,491		

Table 6. Telehealth Services by Modality, Age, and Diagnostic Category, Vermont, 2022
Services/1,000 Covered Lives

Age	F Diagnosis		All Other Diagnoses	
	Audio- Only	Audio- Visual	Audio- Only	Audio- Visual
0 - 4	1.8	140.9	8.9	237.5
5 - 9	15.4	396.6	7.3	109.8
10 - 14	30.9	972.9	4.7	102.2
15 - 19	41.4	1,580.5	13.5	171.4
20 - 24	73.8	2,108.1	25.7	179.9
25 - 29	113.1	2,797.7	30.7	242.4
30 - 34	158.3	3,126.4	37.9	281.2
35 - 39	152.4	2,795.0	36.3	316.6
40 - 44	127.4	2,375.5	39.1	324.5
45 - 49	119.2	1,988.5	43.2	342.4
50 - 54	87.7	1,671.3	45.6	329.1
55 - 59	63.9	1,241.7	52.1	325.8
60 - 64	60.0	1,039.1	58.6	314.0
65 - 69	16.1	499.5	40.8	237.5
70 - 74	15.1	429.3	52.8	263.8
75 - 79	6.8	354.1	59.9	288.5
80 - 84	14.5	273.8	76.2	297.7
85 - 89	5.0	177.6	80.2	322.3
90 Up	17.4	145.6	60.3	337.3
Total	62.4	1,351.4	38.1	258.0

Figure 4. Telehealth Services by Modality, Age, and Diagnostic Category, Vermont, 2022
Services/1,000 Covered Lives



The total number of healthcare services provided to a population is composed of two components – the proportion of the population using the service and the frequency of use by that sub-population. To illustrate this, let’s compare the two diagnostic categories associated with the largest number of services in 2022:

Category F - Mental, Behavioral and Neurodevelopmental disorders

Category M - Diseases of the musculoskeletal system and connective tissue

During that year, 443,843 people were included in VHCURES. About 388,000 of them received one or more professional service.

In order to demonstrate the components of total service counts and to better understand why such a high proportion of all telehealth use is for diagnoses in Category F, that category will be decomposed along with a comparison category. Category M was chosen as a comparison for Category F because it is the category with the second highest number of services after Category F and because it is likely to require more “hands-on” services.

Table 7. Distinct Patients and Services, Selected Diagnostic Categories by Modality, Vermont, 2022

Diagnostic Category	In-Person		Audio-Only		Audio-Visual		Total	
	Distinct Patients	Services	Distinct Patients	Services	Distinct Patients	Services	Distinct Patients	Services
F – Mental Health	89,638	1,155,325	5,922	27,669	49,749	599,710	145,309	1,782,704
M - Musculoskeletal	123,493	1,094,195	1,877	2,460	7,925	13,995	133,295	1,110,650

Table 8. Services per Patient, Selected Diagnostic Categories by Modality, Vermont, 2022

Diagnostic Category	In-Person	Audio-Only	Audio-Visual	Total
F – Mental Health	12.9	4.7	12.1	12.3
M - Musculoskeletal	8.9	1.3	1.8	8.3

Table 7 shows that the number of distinct patients served in-person in each diagnostic category is similar, but very few services are provided via telehealth for Category M.

According to Table 8, the annual services per patient for in-person and audio-visual are quite similar for Category F. In contrast, the number of in-person services per patient is about five times higher than the number of audio-visual services per patient.

Finally, for nearly every diagnostic category other than F, 95 percent or more of total services were in-person. For Category F, the equivalent figure is 65 percent. (Data not shown.)

Category F includes a wide range of diagnoses. Table 9 shows distributions at a more detailed level.

Table 9. Category F Telehealth Services by Subcategory and Modality, Vermont, 2022

Subcategory	Description	Audio-Only	Audio-Visual	Audio-Only	Audio-Visual
F01-F09	Mental disorders due to known physiological conditions	134	1,981	0.5%	0.3%
F10-F19	Mental and behavioral disorders due to psychoactive substance use	7,725	66,316	27.9%	11.1%
F20-F29	Schizophrenia, schizotypal, delusional, and other non-mood psychotic disorders	423	5,786	1.5%	1.0%
F30-F39	Mood [affective] disorders	5,545	118,954	20.0%	19.8%
F40-F48	Anxiety, dissociative, stress-related, somatoform and other nonpsychotic mental disorders	11,714	358,703	42.3%	59.8%
F50-F59	Behavioral syndromes associated with physiological disturbances and physical factors	112	8,859	0.4%	1.5%
F60-F69	Disorders of adult personality and behavior	481	8,569	1.7%	1.4%
F70-F79	Intellectual disabilities	32	1,167	0.1%	0.2%
F80-F89	Pervasive and specific developmental disorders	334	7,241	1.2%	1.2%
F90-F98	Behavioral and emotional disorders with onset usually occurring in childhood and adolescence	1,167	22,059	4.2%	3.7%
F99	Other / Unknown	*	75	*	0.0%
Total**		27,667	599,710		

* Counts or percentages based on fewer than 11 services are suppressed.

**Audio-Only Total excludes Other/Unknown.

Telehealth: Provider Location (State)

As has been demonstrated above, the use of telehealth jumped sharply during the COVID period. As part of that increase, has the pattern of the telehealth provider location changed as well? As can be seen in Table 10, prior to COVID, about half of telehealth encounters were with providers located outside the Vermont / New Hampshire / Massachusetts area (where providers delivering about 84 percent of Vermonters' in-person services practice). During the PHE, over 90% of telehealth services were received from providers located in the three-state area. Vermont's share rose dramatically.

There are two different ways to examine the geography of telehealth use. The first is to look at service counts (Table 10 and Figure 5). The second is to look at provider share (Table 11 and Figure 6).

Looking at service counts, there is the expected jump in 2020 that we have seen before. Within that, there is a shift from the majority of services being provided by professionals in other states (about 58% in 2018, about 50% in 2019) to much greater reliance on providers located in Vermont. This is likely, at least in part, to patients continuing to use local providers but shifting from in-person to telehealth.

Table 10. Telehealth Services by Provider State and Year, 2018-2022

Counts

Provider State	Year				
	2018	2019	2020	2021	2022
VT	5,315	9,584	835,013	830,431	623,354
NH	218	1,592	55,848	52,851	46,519
MA	364	627	30,845	24,167	17,182
NY	3,598	2,803	14,466	15,183	15,304
Missing	354	446	28,108	24,464	18,168
All Other	3,409	5,081	52,854	50,962	38,233
Total	13,235	20,087	1,017,134	998,058	758,760

Figure 5. Telehealth Services by Provider State and Year, 2018-2022

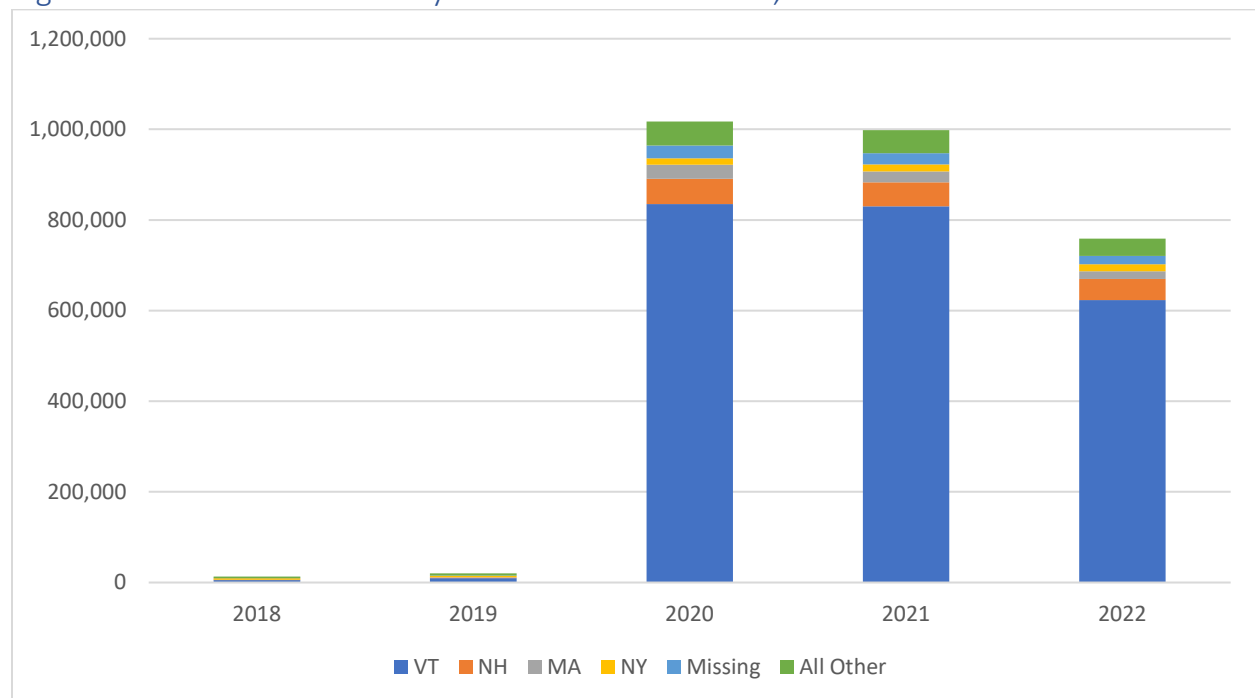


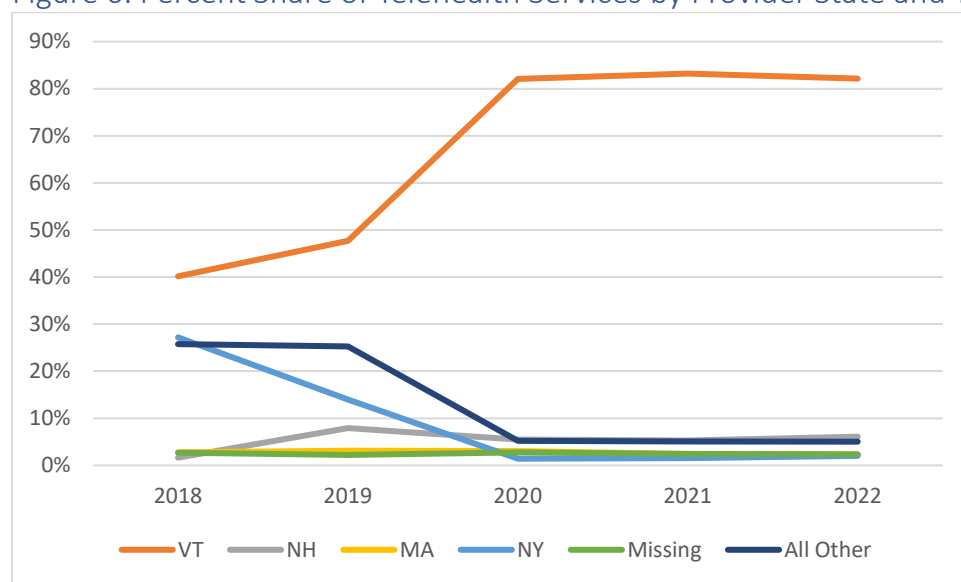
Table 11. Telehealth Services by Provider State and Year, 2018-2022

Percentages

Provider State	Year				
	2018	2019	2020	2021	2022
VT	40%	48%	82%	83%	82%
NH	2%	8%	5%	5%	6%
MA	3%	3%	3%	2%	2%
NY	27%	14%	1%	2%	2%
Missing	3%	2%	3%	2%	2%

All Other 26% 25% 5% 5% 5%

Figure 6. Percent Share of Telehealth Services by Provider State and Year, 2018-2022



Telehealth: Provider Specialty

In addition to looking at diagnosis as a way to understand the reasons people seek care through telemedicine, it can also be useful to examine provider specialty¹⁶. (See Table 12.) Similar to the diagnostic category analysis, Table 13 shows that about two-thirds of audio-visual telehealth services in 2022 were provided by **mental health and behavioral health specialists**. In contrast, audio-only services were more often provided by **primary care providers**.

¹⁶ Provider specialty is defined using the specialty taxonomy reported to the National Plan and Provider Enumeration (NPPES). Information on NPPES is available at <https://nppes.cms.hhs.gov/#/>.

Table 12. Telehealth Services by Provider Specialty and Treatment Modality, Vermont, 2022

Counts

	Audio-Only	Audio-Visual	Total
Mental Health Counselor	4,026	138,358	142,384
Clinical Social Worker	3,415	122,965	126,380
Addiction (Substance Use Disorder) Counselor	3,006	55,576	58,582
Clinical Psychologist	1,735	55,904	57,639
Psychologist	1,446	40,515	41,961
Psychiatry Physician	3,353	28,992	32,345
Family Medicine Physician	3,065	20,257	23,322
Family Nurse Practitioner	3,202	18,886	22,088
Missing	592	17,576	18,168
Internal Medicine Physician	2,997	11,369	14,366
Psychiatric/Mental Health Nurse Practitioner	1,103	12,618	13,721
Physician Assistant	1,933	10,490	12,423
Registered Dietitian	34	10,585	10,619
Counselor	144	10,273	10,417
Social Worker	554	9,542	10,096
Naturopath	687	9,383	10,070
Marriage & Family Therapist	360	9,477	9,837
Nurse Practitioner	1,247	8,423	9,670
Professional Counselor	67	9,507	9,574
All Other	11,593	113,505	125,098
Total	44,559	714,201	758,760
Mental Health	18,838	473,818	
Primary Care	9,996	80,912	
Other	15,725	159,471	

Table 13. Telehealth Services by Provider Specialty and Treatment Modality, Vermont, 2022

Percentages

	Audio-Only	Audio-Visual	Total
Mental Health Counselor	9%	19%	19%
Clinical Social Worker	8%	17%	17%
Addiction (Substance Use Disorder) Counselor	7%	8%	8%
Clinical Psychologist	4%	8%	8%
Psychologist	3%	6%	6%
Psychiatry Physician	8%	4%	4%
Family Medicine Physician	7%	3%	3%
Family Nurse Practitioner	7%	3%	3%
Missing	1%	2%	2%
Internal Medicine Physician	7%	2%	2%
Psychiatric/Mental Health Nurse Practitioner	2%	2%	2%
Physician Assistant	4%	1%	2%
Registered Dietitian	0%	1%	1%
Counselor	0%	1%	1%
Social Worker	1%	1%	1%
Naturopath	2%	1%	1%
Marriage & Family Therapist	1%	1%	1%
Nurse Practitioner	3%	1%	1%
Professional Counselor	0%	1%	1%
All Other	26%	16%	16%
Total			
Mental Health	42%	66%	
Primary Care	22%	11%	
Other	35%	22%	

Key Findings

- The total number of professional services, including both in-person and telehealth, dropped sharply in 2020, and returned to a level comparable to the pre-COVID period in 2021.
- During the PHE, telehealth services represented about 11 percent of all services. Audio-only represented only 0.5% of all services.
- The use of telehealth services during the PHE varied by payer, with Medicaid reporting the highest percentage and Medicare reporting the lowest percentage of all services.
- Telehealth services appear to have primarily been used as a substitute for in-person services.
- Use of telehealth services varied substantially by age of patient, with the 26-40-year-old group accounting for about one-third of all services.
- About twice as many telehealth services were provided to females as males.
- Mental health services accounted for almost 80 percent of all telehealth services during the PHE. Still, only 4.4% of these services were audio-only.
- Mental health services accounted for over 90 percent of all telehealth use in ages 10 to 34.
- The annual number of in-person services per patient and audio-visual services per patient is similar for patients with mental health diagnoses. Conversely, patients with musculoskeletal diagnoses use five times more in-person services than audio-visual services.
- During the PHE, over 90% of Vermonters' telehealth services were received from providers practicing in Vermont, New Hampshire, and Massachusetts. Vermont's share rose dramatically.
- In 2022, about two-thirds of *audio-visual* telehealth services were provided by mental health and behavioral health specialists. In contrast, *audio-only* services were more often provided by primary care providers.

Recommendations

More study is needed of the clinical quality of audio-only professional visits. Additional follow-up analysis of audio-only visits can lend insight into levels of equity and efficacy. Please refer to Appendix 7 for comments from BCBSVT.

One avenue for future exploration would be assessing whether telehealth use for follow-up visits improves adherence to ED discharge recommendations. GMCB uses VHCURES for claims-based quality measures, such as 30-Day Follow-Up After Discharge from ED for Mental Health.¹⁷ Future research could evaluate healthcare quality measures by modality (in-person, audio-visual, audio-only). This type of research would require much more time, as it would require analyzing institutional and professional service claims.

¹⁷ *Annual Health Outcomes and Quality of Care Report*, Green Mountain Care Board, https://gmcboard.vermont.gov/sites/gmcb/files/documents/Annual%20Quality%20Report%20Template_2021.pdf.

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The analyses, conclusions, and recommendations from these data are solely those of the author. The GMCB had no input into the study design, implementation, or interpretation of the findings. The analyses, conclusions, and recommendations are those of the authors alone and are not necessarily those of the GMCB. No official endorsement by the GMCB is intended or should be inferred.

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Appendix 1- VHCURES

VHCURES, the Vermont Health Care Uniform Reporting and Evaluation System, is a database composed of three broad types of data – claims, covered lives, and providers. Each type will be discussed below.

VHCURES contains information from the following types of payers:

Medicare – the federal health payment program that covers nearly all individuals age 65 and over and younger individuals with significant illnesses. CMS, the federal Centers for Medicare and Medicaid Services, provides data files on an annual basis (based on date of service).

Medicaid – health financing program for low-income families and individuals with serious illness. It is structured as a partnership between the federal government and individual states.

Private Insurers - private organizations established to provide insurance to individuals, either directly or through employers. Private insurers are regulated by the state. Insurers are required by state law to provide data to VHCURES unless they insure fewer than 200 lives in Vermont. Data are provided to VHCURES at frequencies determined by the number of insured lives.

Self-insured employers – rather than purchasing health insurance, large employers may decide to pay for the care of their employees and their families directly, often by contracting with a claims administrator. Note that these employers are exempt from state regulation and as a result of a U.S. Supreme Court decision¹⁸, cannot be compelled to provide data, although several do voluntarily.

VHCURES does not include information on services by those without coverage, services that patients choose to pay for themselves, or services provided to people covered under a plan provided to federal employees.

Types of Data

Claims – initially, invoices submitted by providers to payers for services provided to patients. VHCURES includes what are in effect paid invoices, including both the information submitted to the payer and financial information resulting from the processing of the claim. Initial information includes data such as an encrypted patient identifier, dates of service, diagnoses, procedure codes, and provider information. Payment information includes the amount that the payer remitted to the provider and patient cost-sharing (deductible, coinsurance, copayment).

In addition to claims that resulted in financial liability for either the payer or the patient, VHCURES also includes services provided under a capitation agreement, a fixed monthly payment to a provider or provider organization on behalf of a patient. This payment is independent from the volume of services provided to the patient. However, although it is not required for payment, a claim is submitted to VHCURES for any service provided under a capitation agreement.

There are two broad types of claims – professional and facility. Professional claims are for services provided by an identified individual or individuals. Facility claims are for services provided by a large organization such as a hospital or nursing home. This report includes only professional claims.

¹⁸ Gobeille v. Liberty Mutual, https://scholar.google.com/scholar_case?case=12056457362213779071

Often, a medical service may produce more than one claim in VHCURES. A common example of this is a patient covered by both Medicare and Medicaid (“dual eligible”). Medicare, the primary payer, will pay first and any remaining patient liability will be forwarded to Medicaid. VHCURES provides a mechanism to identify whether a claim is primary or not. In all analyses in this report, only primary claims are included.

One of the challenges in analyzing claims data is the lags between the date of service and the date of payment and between the claims payment and the inclusion of the record in VHCURES. Because of these lags, analyses in this report include services provided through December 31, 2022. While those services are likely to be nearly complete, final numbers may be slightly higher for 2022.

Member – in addition to claims, VHCURES includes member data. These data are available for each person with coverage for each month covered. Note that as in claims, any individual identifier, such as name, is encrypted. Additional information includes data points such as age, gender, ZIP code, and source of coverage (payer).

This type of data is essential for calculating rates (e.g. services per 1,000 people). Rates are useful in comparing utilization for populations of different sized, e.g. the individual private insurers.

Rates are also useful when the population covered by a payer is changing substantially over time. For example, during the Covid-19 public health emergency, Congress enacted the Families First Coronavirus Response Act (FFCRA). As a condition of receiving a temporary 6.2 percentage point Federal Medical Assistance Percentage (FMAP) increase under the FFCRA, states were required to maintain enrollment of nearly all Medicaid enrollees during the emergency. Use of rates in addition to counts can allow us to remove the effect of increasing enrollment on the use of telehealth services by Medicaid beneficiaries.

Appendix 2 – Detailed Methodology

Criteria for Inclusion in Analyses

Five payers are included in this report – Medicare, Medicaid, Blue Cross, CIGNA, and MVP. These five provide over 80% of all coverage for Vermonters. The choice not to include other private insurers was made based on the variability of payer rules for identifying and covering telehealth services.

In order to provide a pre-Covid baseline, claims for services provided on January 1, 2018 or later are included.

Codes Used to Identify Telehealth Claims

Place of Service Codes are two-digit codes placed on health care professional claims to indicate the setting in which a service was provided. The Centers for Medicare & Medicaid Services (CMS) maintain POS codes used throughout the health care industry.

There are two complimentary systems that are used to identify the service being charged for on a professional claim. The first is Current Procedural Terminology (CPT). CPT is a proprietary system, developed and maintained by the American Medical Association and licensed for use by providers. CPT is focused on medical procedures. The second is the Healthcare Common Procedure Coding System (HCPCS). HCPCS is composed of two parts. The first is identical to CPT. The second, called HCPCS II, is used primarily to identify products, supplies, and services not included in the CPT.

A medical coding modifier is two characters (letters or numbers) appended to a CPT® or HCPCS Level II code. The modifier provides additional information about the medical procedure, service, or supply involved without changing the meaning of the code.

The lists below show the values of the Place of Service and Procedure Code Modifier fields that were used to identify telehealth claims, based on provider rules promulgated by the payers included in this report. Each modifier code includes an indication of whether it is used with a CPT or HCPCS procedure code. Modifier codes for audio-only services are highlighted in yellow.

Place of Service

02 - Telehealth provided other than in patient's home. Patient is not located in their home when receiving health services or health related services through telecommunication technology.

10 - Telehealth provided in patient's home.

99 - Other place of service

Modifier Codes

93 – Synchronous telemedicine service rendered via telephone or other real-time interactive audio-only telecommunications system (CPT)

95 – Synchronous Telemedicine Service Rendered via Real-Time Interactive Audio and Video Telecommunications System. (CPT)

FQ – A mental health telehealth service was furnished using real-time audio-only communication technology (HCPCS)

GQ – Synchronous telemedicine service rendered via telephone or other real-time interactive audio-only telecommunications system (HCPCS)

GT – Synchronous Telemedicine Service Rendered via Real-Time Interactive Audio and Video Telecommunications System. (HCPCS)

V3 – Audio-only (CPT, DFR Regulation)

V4 – Audio-only (CPT, DFR Regulation)

In addition, there are 3 CPT codes, 99441, 99442, and 99443, which are specifically for telephone consultation. These are always included, regardless of modifier and Place of Service.

In a few instances, a claim will have one value that indicates audio-only and another that indicates audio-visual. These are classified as audio-visual.

Appendix 3 – Populations Used in Rate Calculation

		Jul-18	Jul-19	Jul-20	Jul-21	Jul-22
BCBSVT / TVHP	0 - 4	5,878	5,860	5,424	5,145	4,087
	5 - 9	6,296	6,264	5,720	5,437	4,642
	10 - 14	7,681	7,401	6,761	6,358	5,490
	15 - 19	8,756	8,488	7,811	7,309	6,613
	20 - 24	10,804	10,496	9,373	8,710	7,546
	25 - 29	9,125	9,020	7,941	7,157	6,128
	30 - 34	9,949	9,658	8,642	8,429	7,326
	35 - 39	10,728	10,672	9,628	9,156	8,045
	40 - 44	10,796	10,573	9,695	9,580	8,665
	45 - 49	12,977	12,101	10,490	9,563	8,594
	50 - 54	14,007	13,453	12,116	11,627	10,480
	55 - 59	16,571	15,648	13,729	12,487	11,112
	60 - 64	17,568	16,632	14,902	14,085	12,927
	65 - 69	4,759	4,758	4,606	4,324	3,817
	70 - 74	1,552	1,763	1,911	1,981	1,992
	75 - 79	458	518	575	637	733
	80 - 84	154	161	178	182	220
	85 - 89	51	50	65	72	74
	90 - up	42	28	31	24	25
BCBSVT / TVHP Total		148,152	143,544	129,598	122,263	108,516

		Jul-18	Jul-19	Jul-20	Jul-21	Jul-22
CIGNA	0 - 4	358	412	473	443	468
	5 - 9	400	422	494	443	512
	10 - 14	461	484	577	556	596
	15 - 19	527	595	686	634	712
	20 - 24	683	768	818	756	804
	25 - 29	683	682	827	787	793
	30 - 34	675	797	918	909	919
	35 - 39	681	731	865	850	901
	40 - 44	666	743	856	866	929
	45 - 49	764	794	876	862	935
	50 - 54	804	824	957	993	1,046
	55 - 59	961	1,007	1,051	1,048	1,106
	60 - 64	859	887	964	968	1,004
	65 - 69	409	413	449	471	321
	70 - 74	279	286	300	307	77
	75 - 79	140	168	183	174	24
	80 - 84	81	74	72	88	15
	85 - 89	55	60	62	56	*
	90 - up	21	24	23	27	*
CIGNA Total		9,507	10,171	11,451	11,238	11,168

		Jul-18	Jul-19	Jul-20	Jul-21	Jul-22
Medicaid	0 - 4	17,188	16,287	16,001	15,919	15,658
	5 - 9	17,632	17,256	17,433	18,102	18,237
	10 - 14	17,334	17,299	17,603	18,343	18,498
	15 - 19	14,716	14,438	15,073	16,556	17,077
	20 - 24	9,079	8,235	8,713	10,677	12,101
	25 - 29	11,093	9,703	10,254	11,596	11,939
	30 - 34	10,569	9,740	10,656	12,548	13,383
	35 - 39	9,000	8,602	9,571	11,168	11,974
	40 - 44	6,776	6,450	7,416	8,941	9,962
	45 - 49	6,294	5,708	6,195	6,884	7,394
	50 - 54	6,310	5,722	6,063	6,884	7,221
	55 - 59	6,744	6,259	6,633	7,179	7,314
	60 - 64	5,926	5,648	6,200	7,168	7,666
	65 - 69	172	185	222	379	460
	70 - 74	116	135	132	184	213
	75 - 79	80	101	105	114	146
	80 - 84	78	85	68	89	116
	85 - 89	68	64	66	73	68
	90 - up	73	70	86	88	95
Medicaid Total		139,248	131,987	138,490	152,892	159,522

		Jul-18	Jul-19	Jul-20	Jul-21	Jul-22
Medicare	5 - 9	*	*	*	*	*
	10 - 14	*	*	*	*	*
	15 - 19	*	*	*	*	*
	20 - 24	406	385	372	364	347
	25 - 29	896	812	809	721	725
	30 - 34	1,283	1,217	1,212	1,141	1,066
	35 - 39	1,574	1,522	1,531	1,448	1,421
	40 - 44	1,679	1,624	1,663	1,571	1,551
	45 - 49	2,262	2,061	2,022	1,799	1,701
	50 - 54	3,113	2,867	2,703	2,437	2,295
	55 - 59	4,535	4,305	4,197	3,634	3,257
	60 - 64	5,564	5,367	5,325	5,068	4,948
	65 - 69	32,394	31,532	32,338	31,102	31,335
	70 - 74	26,323	26,660	28,210	28,614	28,360
	75 - 79	17,942	18,136	19,290	18,863	20,486
	80 - 84	11,661	11,471	11,843	11,840	12,144
	85 - 89	7,609	7,267	7,479	7,065	7,106
	90 - up	5,064	4,921	5,080	4,897	4,689
Medicare Total		122,309	120,149	124,077	120,572	121,438

		Jul-18	Jul-19	Jul-20	Jul-21	Jul-22
MVP	0 - 4	625	667	860	850	839
	5 - 9	697	804	1,057	1,019	936
	10 - 14	832	933	1,300	1,322	1,156
	15 - 19	1,050	1,173	1,716	1,584	1,512
	20 - 24	1,832	2,039	2,750	2,583	2,309
	25 - 29	2,575	2,701	3,125	3,134	2,755
	30 - 34	2,457	2,883	3,392	3,452	3,136
	35 - 39	2,359	2,707	3,274	3,423	3,215
	40 - 44	2,201	2,628	3,242	3,396	3,156
	45 - 49	2,560	2,785	3,478	3,384	3,172
	50 - 54	2,944	3,132	4,113	4,277	3,929
	55 - 59	3,292	3,770	4,918	4,969	4,628
	60 - 64	3,303	4,083	5,375	5,656	5,377
	65 - 69	939	1,408	2,155	2,449	2,987
	70 - 74	520	809	1,012	1,114	1,466
	75 - 79	316	450	573	596	857
	80 - 84	160	217	251	304	391
	85 - 89	117	119	133	154	175
	90 - up	64	82	94	99	119
MVP Total		28,843	33,390	42,818	43,765	42,115
Grand Total		448,059	439,241	446,434	450,730	442,759

Appendix 4- ICD-10-CM Diagnosis Categories

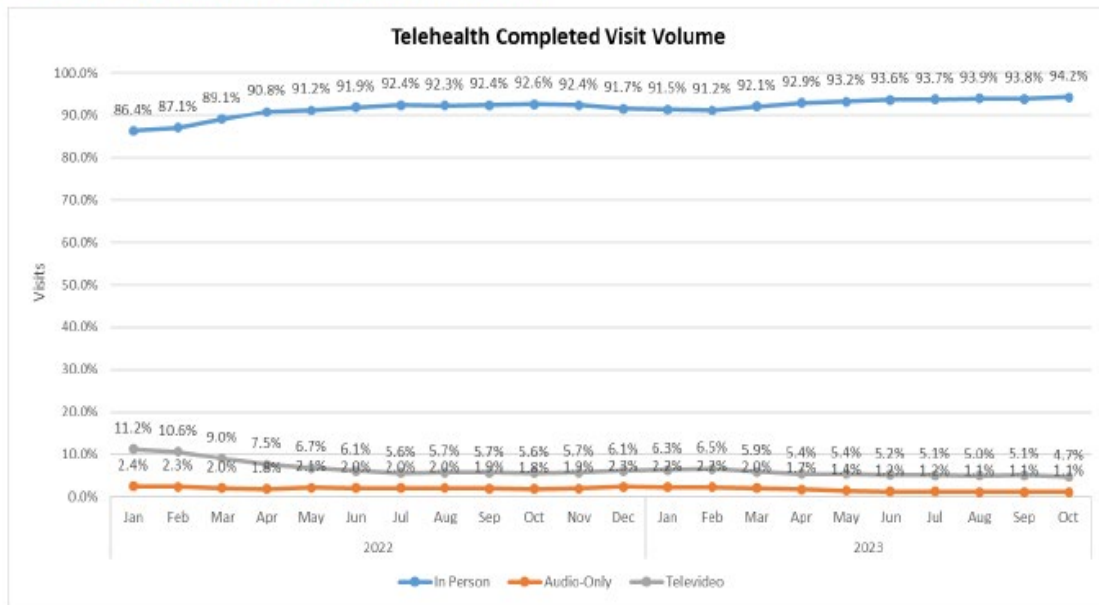
Codes	Definition
A00–B99	Certain infectious and parasitic diseases
C00–D48	Neoplasms
D50–D89	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism
E00–E90	Endocrine, nutritional, and metabolic diseases
F00–F99	Mental and behavioural disorders
G00–G99	Diseases of the nervous system
H00–H59	Diseases of the eye and adnexa
H60–H95	Diseases of the ear and mastoid process
I00–I99	Diseases of the circulatory system
J00–J99	Diseases of the respiratory system
K00–K93	Diseases of the digestive system
L00–L99	Diseases of the skin and subcutaneous tissue
M00–M99	Diseases of the musculoskeletal system and connective tissue
N00–N99	Diseases of the genitourinary system
O00–O99	Pregnancy, childbirth and the puerperium
P00–P96	Certain conditions originating in the perinatal period
Q00–Q99	Congenital malformations, deformations and chromosomal abnormalities
R00–R99	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified
S00–T98	Injury, poisoning and certain other consequences of external causes
V01–Y98	External causes of morbidity and mortality
Z00–Z99	Factors influencing health status and contact with health services
U00–U99	Codes for special purposes

Appendix 5 – Links to Vermont Resources

	Act 6	https://legislature.vermont.gov/Documents/2022/Docs/ACTS/ACT006/ACT006%20As%20Enacted.pdf
Statutory Language	8 V.S.A. § 4100k	https://legislature.vermont.gov/statutes/section/08/107/04100k
	18 V.S.A. § 9361	https://legislature.vermont.gov/statutes/section/18/219/09361
	18 V.S.A. § 9362	https://legislature.vermont.gov/statutes/section/18/219/09362
VPQHC	18 V.S.A. § 9416	https://legislature.vermont.gov/statutes/section/18/221/09416
DFR Orders	2024-2026	https://dfr.vermont.gov/content/coding-and-reimbursement-audio-only-telephone-services
	2022-2023	https://dfr.vermont.gov/reg-bul-ord/audio-only-telephone-services-order
		https://www.bluecrossvt.org/sites/default/files/2023-04/Telemedicine%20and%20Telehealth%20-%202023%20-%20PUBLICATION%2005.01.2023.pdf
	BCBSVT	https://www.bluecrossvt.org/documents/cpp03telemedicine-final
		https://www.bluecrossvt.org/documents/cpp24-temporary-telephone-policy-through-dec2023
Payer Policies	MVP	https://www.mvphealthcare.com/-/media/project/mvp/healthcare/documents/provider-policies-and-payment-policies/2023/october/mvp-payment-policies-effective-october-1-2023.pdf?rev=240163e9d6f34cb2aef02baeacb8377b&hash=FB0DD7DE6E99328F2884EAB6779EFB9B
	CIGNA	https://static.cigna.com/assets/chcp/secure/pdf/resourceLibrary/clinReimPolsModifiers/R31_Virtual_Care.pdf
	Medicaid	https://dvha.vermont.gov/providers/telehealth
	Medicare	https://www.cms.gov/newsroom/fact-sheets/medicare-telemedicine-health-care-provider-fact-sheet
		https://telehealth.hhs.gov/providers/billing-and-reimbursement/billing-and-coding-medicare-fee-for-service-claims#telehealth-codes-covered-by-medicare

Appendix 6 – Comparison with Other Organization Data

UVM Health Network Visits



THE
University of Vermont
HEALTH NETWORK

2

Vermont Medicaid Claims

SFY	Audio Only Spend (Modifier V3)	Number of claims	% of all Claims	%of all spend
2020	\$1,280,241	29,907	0.61%	0.15%
2021	\$3,478,721	77,521	1.60%	0.55%
2022	\$2,387,079	42,609	0.77%	0.34%

SFY	Video/Audio Spend (POS 02)	Number of claims	% of all Claims	%of all spend
2020	\$8,282,646	8,782	0.18%	0.99%
2021	\$31,665,265	101,536	2.10%	4.96%
2022	\$28,097,602	348,545	6.32%	3.98%

SFY	Spend for all other claims	Number of claims	% of all Claims	%of all spend
2019	\$807,986,109	4,969,977		
2020	\$830,528,744	4,866,343	99.21%	98.86%
2021	\$602,845,220	4,658,546	96.30%	94.49%
2022	\$675,544,521	5,127,681	92.91%	95.68%

Note that data from Medicaid will not agree exactly with data in this report due to differences in rules for inclusion. The 'all other claims' category here is similar to the 'in-person' category used throughout this report.

Appendix 7 – BCBS VT Comments

Excerpt from Letter Dated January 23, 2024



BERLIN
445 INDUSTRIAL LANE
BERLIN, VERMONT
05602

P.O. BOX 186 800 247 2583
MONTPELIER 800 922 8778
VT 05601-0186 800 255 4550

[T]here is no mention of health equity, and how audio only may exacerbate inequities, particularly for rural and low income populations, yet the data cited points to alarming trends.

Tables 1 and 2 offer stark examples of how Audio Only care has the potential to exacerbate health inequities. RAND contemplates these concerns in [Rethinking the Impact of Audio-Only Visits on Health Equity](#) from December 2021, offering a summary of the health equity gap that could be exacerbated by audio-only care. The RAND article discusses:

- How ongoing delivery of audio-only visits can reduce the quality of care among low-income populations and contribute to health disparities.
- It references studies that have shown that clinicians can miss visual cues and struggle with [establishing rapport with patients](#), and the visits are [shorter](#). Additionally, patients report lower satisfaction and [comprehension rates](#)—which is a critical concern for patients following medical advice.
- Even as new data emerge about the quality of audio-only visits, it is clear that some patients are largely getting more evidence-based, tested medical services (which are in-person and video visits) while low-income patients are getting this untested service of audio-only.
- Cervical cancer screening rates, child weight assessment and counseling, and depression screening and follow-up at FQHCs [declined with telehealth](#) (predominantly audio-only) use.
- Telehealth experts have pointed out that failing to rein in audio-only visits risks escalating costs and creating a [two-tiered system](#) in which affluent patients get video and in-person visits and low-income patients get telephone calls.

The point that is particularly concerning and reflected in Tables 1 and 2 is that “generous parity reimbursement for audio-only visits may be creating perverse incentives to deliver substandard care to the most under-served.” It is echoed on page 8 with the gender analysis: “twice as many telehealth services were provided to females as were provided to males. This pattern was seen across all but the youngest and oldest age groups.” This echoes health equity concerns outlined in a maternal health equity analysis performed by the [Centers for Disease Control and Prevention](#), where women often don’t want to be seen as difficult or making a big deal of something or feeling embarrassed, or thinking their provider seemed to be in a hurry.