Telehealth Utilization in Vermont, 2018-2022

March 19, 2024

Ali Johnson, MBA, Quality Improvement Specialist

Prepared for the Senate Committee on Finance

VPQHC

Vermont Program for Quality in Health Care, Inc.

Outline

PURPOSE OF REPORT

INFORMATION USED

KEY QUESTIONS

FINDINGS

A NOTE ON QUALITY

Purpose of Report

Purpose

- 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**.

Acknowledgement ~ VDH

- This project is supported with funding from the Vermont Department of Health. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of VDH.

Special Thanks

- To Steve Kappel of Policy Integrity, LLC for analyzing the claims data and drafting much of the report.

Information Used

VHCURES: Vermont Healthcare Claims Uniform Reporting and Evaluation System

- Vermont's All-Payer claims database.
- Includes health care utilization, costs, and resources provided in Vermont and to Vermont residents in other states.
- By law (18 V.S.A. § 9410), health insurers, health care providers, hospitals, other health care facilities, and governmental agencies must submit information specified by GMCB.
- Does *not* contain complete data on the Vermont health care market because of its specific scope and the exclusion of certain payers, including self-insured payers, federal employee plans, Veterans' Affairs and TRICARE, self-pay (uninsured), and payers with an average Vermont resident enrollment of fewer than 200.
- Claims are not clinical records.

VHCURES Data Reporting Manual

Acknowledgement ~ GMCB

- VPQHC acknowledges the Green Mountain Care Board as the steward of the data and the Vermont Health Care Uniform Reporting and Evaluation System (VHCURES) as the source of the data in this presentation.

- The analyses, conclusions, and recommendations drawn from the data are solely those of VPQHC and are not necessarily those of the GMCB.

Information Used ~ Claims

services that generated a paid claim

- excludes portal communications, e.g., MyChart

professional services (provided by an individual)

- excludes facility services (provided by a hospital or nursing home)

largest payers (Medicare, Medicaid, BCBSVT, Cigna, and MVP)

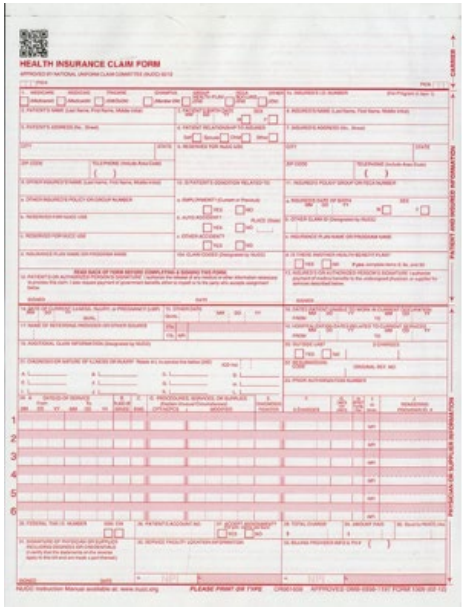
- excludes smaller payers
- excludes self-insured employers

primary claims

- excludes secondary claims, e.g., for dual eligible patients

dates of service 2018-2022

- 2018-2019: pre-PHE
- 2020-2022: during PHE




CAUTION
reimbursable telehealth-related codes changed over time
and by payer

How We Defined 'Telehealth' Claims

OR

Place of Service	Procedure Modifier
02 - Telehealth provided other than in patient's home.	93 – Synchronous telemedicine service rendered via telephone or other real-time interactive audio-only telecommunications system
10 - Telehealth provided in patient's home.	95 – Synchronous telemedicine service rendered via real-time interactive audio and video telecommunications system
99 - Other place of service	FQ – A mental health telehealth service was furnished using real-time audio-only communication technology
	GQ – Synchronous telemedicine service rendered via telephone or other real-time interactive audio-only telecommunications system
	GT – Synchronous telemedicine service rendered via real-time interactive audio and video telecommunications system
	V3 – Audio-only
	V4 – Audio-only

‘Telehealth’ Claims, Continued

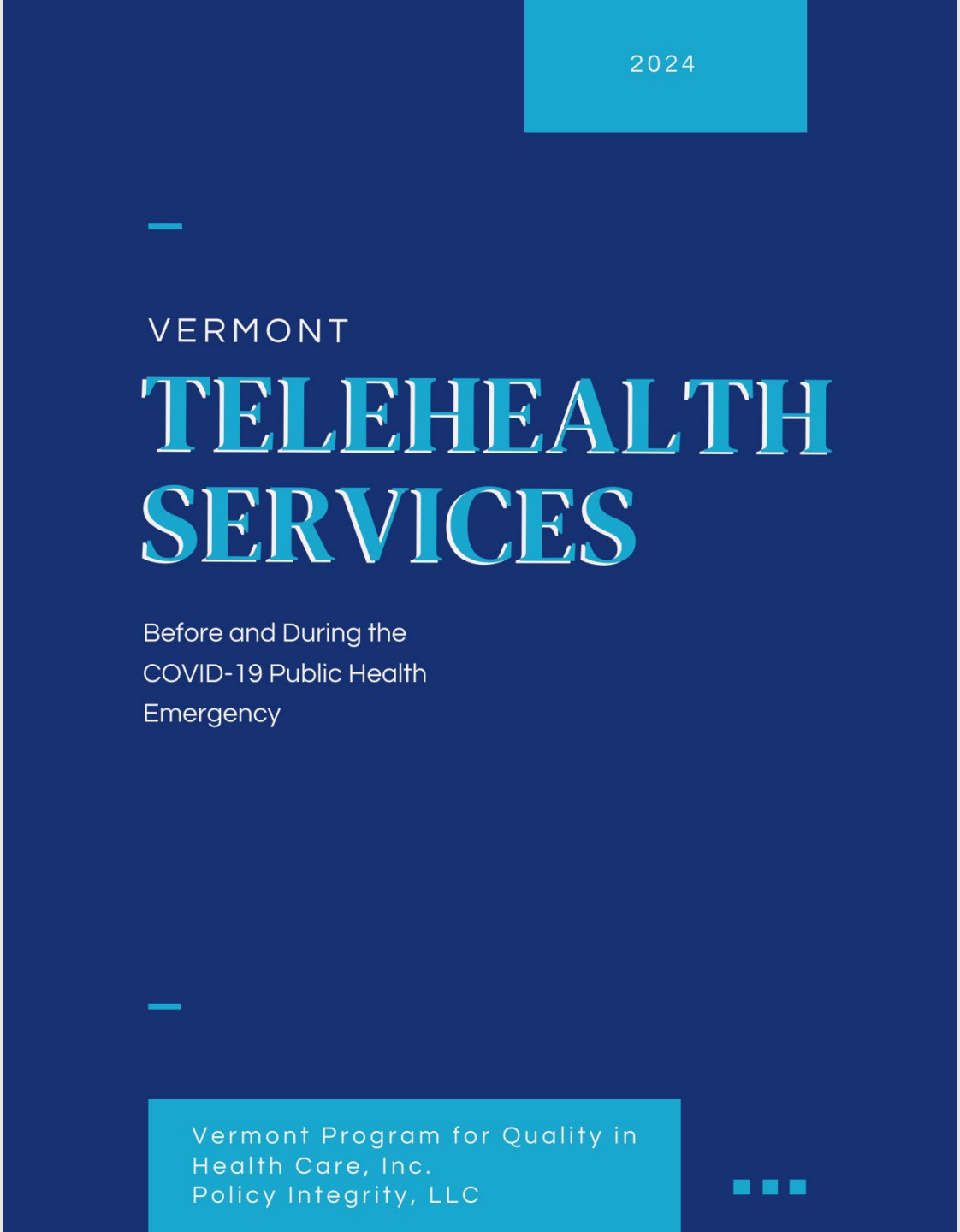
- Three CPT codes were always included:
  - 99441, 99442, 99443
  - telephone evaluation and management visits
- If a claim had one code indicating audio-only and another code indicating audio-visual, it was classified as audio-visual.

Key Questions

Key Questions

- How has telehealth impacted utilization of professional services?
- What are patterns of audio-visual and audio-only use?
- Has the pattern of the telehealth provider location changed?

Findings

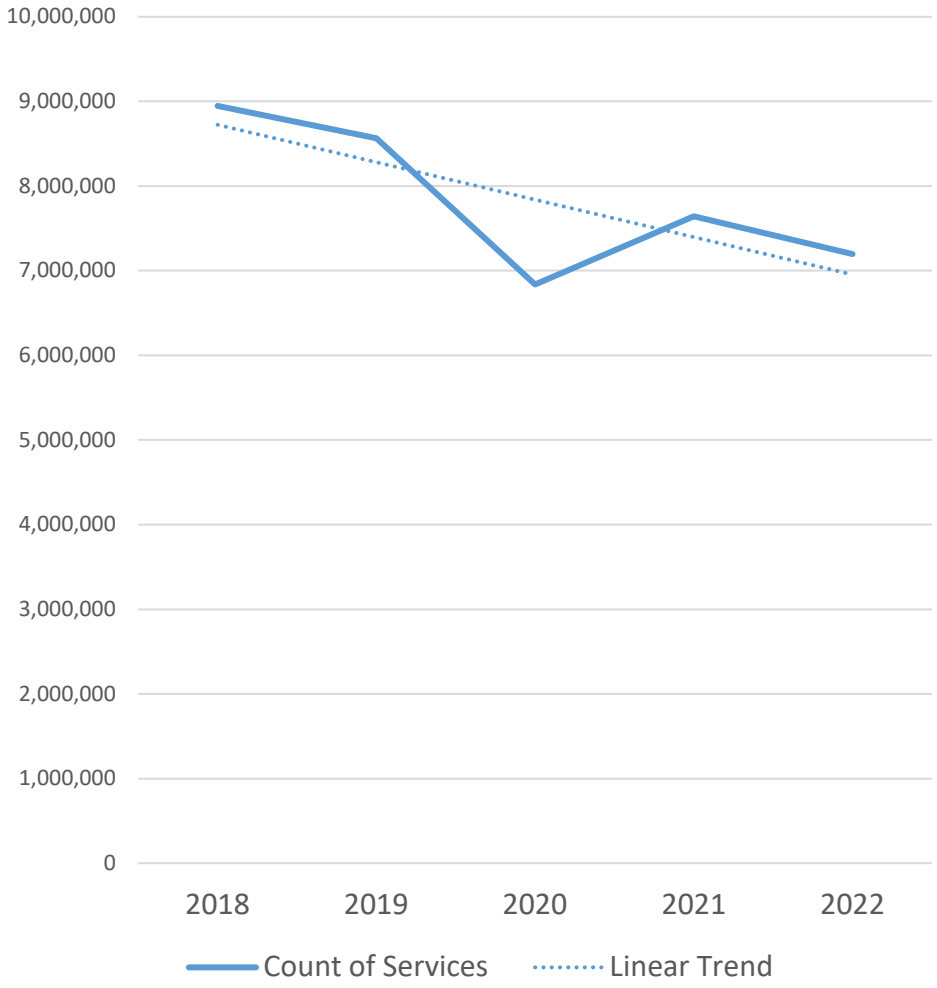


https://www.vpqhc.org/

Use of professional services changed during the PHE.

- The number of services dropped in 2020, then rebounded with the continuation of a general decline.
- Contributing factors might be:
  - changes in the market share of the payers selected
  - the number of people included in VHCURES

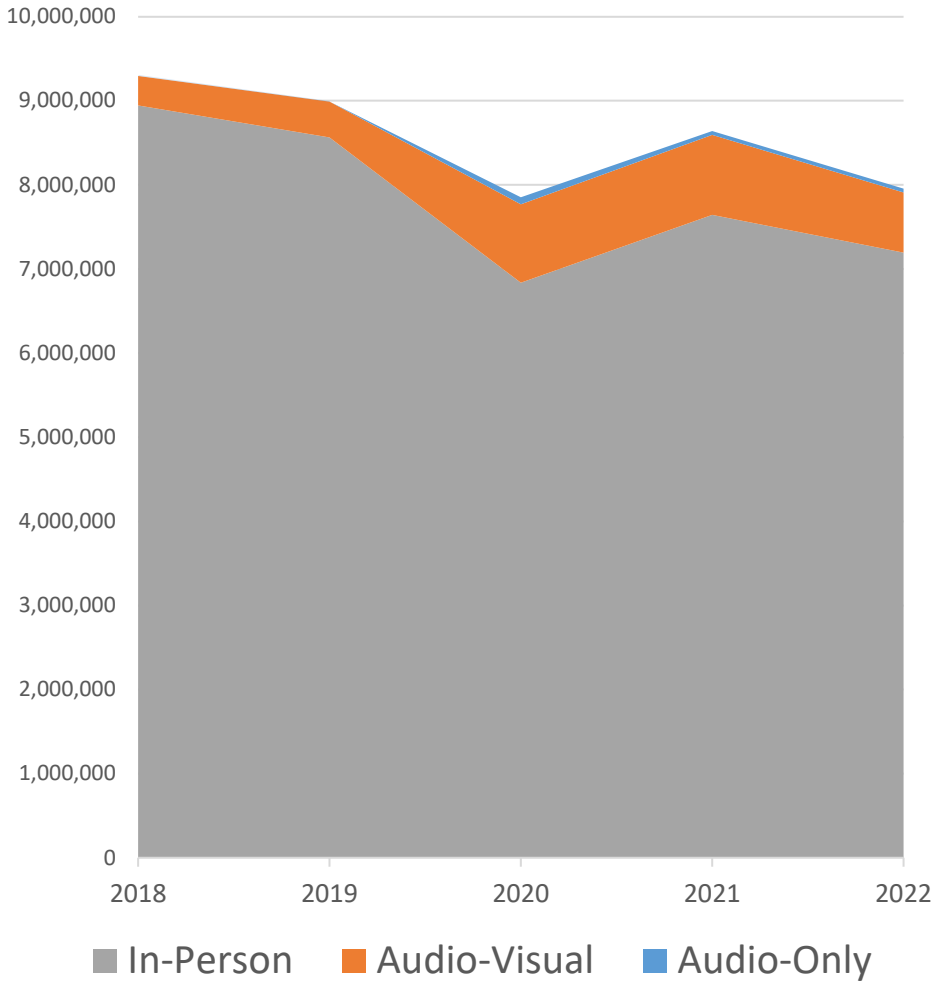
Figure 1. Professional Services by Year, Vermont, 2018-2022



Telehealth services appear to have been used as a substitute for in-person services.

- Audio-only services represented a very small proportion of total services.

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



During the PHE, use of telehealth and all services varied by payer.

- Overall use of services by Medicare and Medicaid members was higher than private coverage.

- Use of audio-visual telehealth was highest among those covered by BCBSVT and Medicaid.

- Use of audio-only telehealth was highest among Medicaid, Medicare, and Cigna beneficiaries.

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
	Audio-Visual	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

People with mental health diagnoses used nearly 80% of all telehealth services.

- However, the portion of all telehealth that was *audio-only* was lower for mental health than any other diagnostic category.

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

ICD-10-CM 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.

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

A higher percentage of telehealth visits for people with cancer and heart disease were audio-only compared to people with other diagnoses.

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

ICD-10-CM 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.

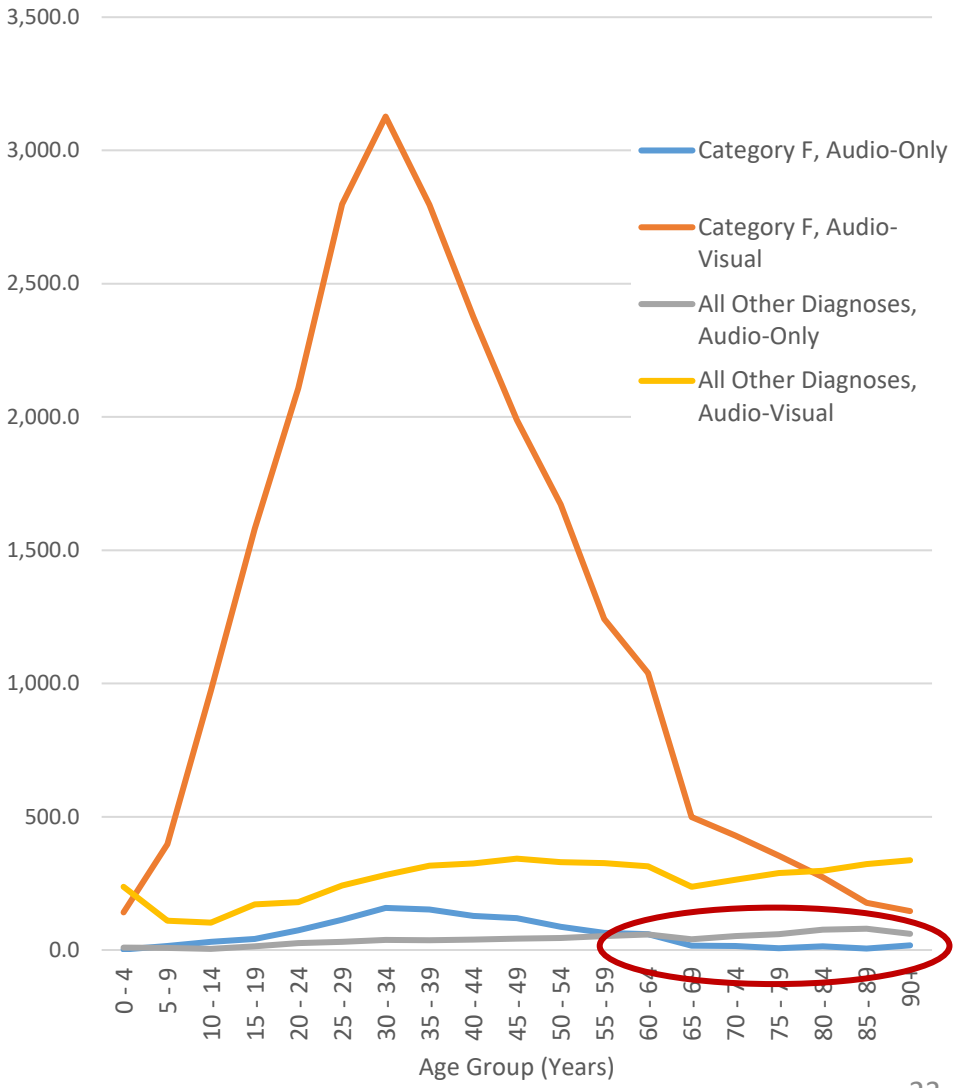
International Classification of Diseases, Clinical Modification, 10th revision, https://www.cdc.gov/nchs/icd/icd-10-cm.htm.

Use of telehealth varied by diagnosis and age.

- Services for people with mental health diagnoses accounted for over 90% of all telehealth use in ages 10-34 and declined as age increased.
- In older age groups, use of telehealth for physical health diagnoses becomes more common.

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

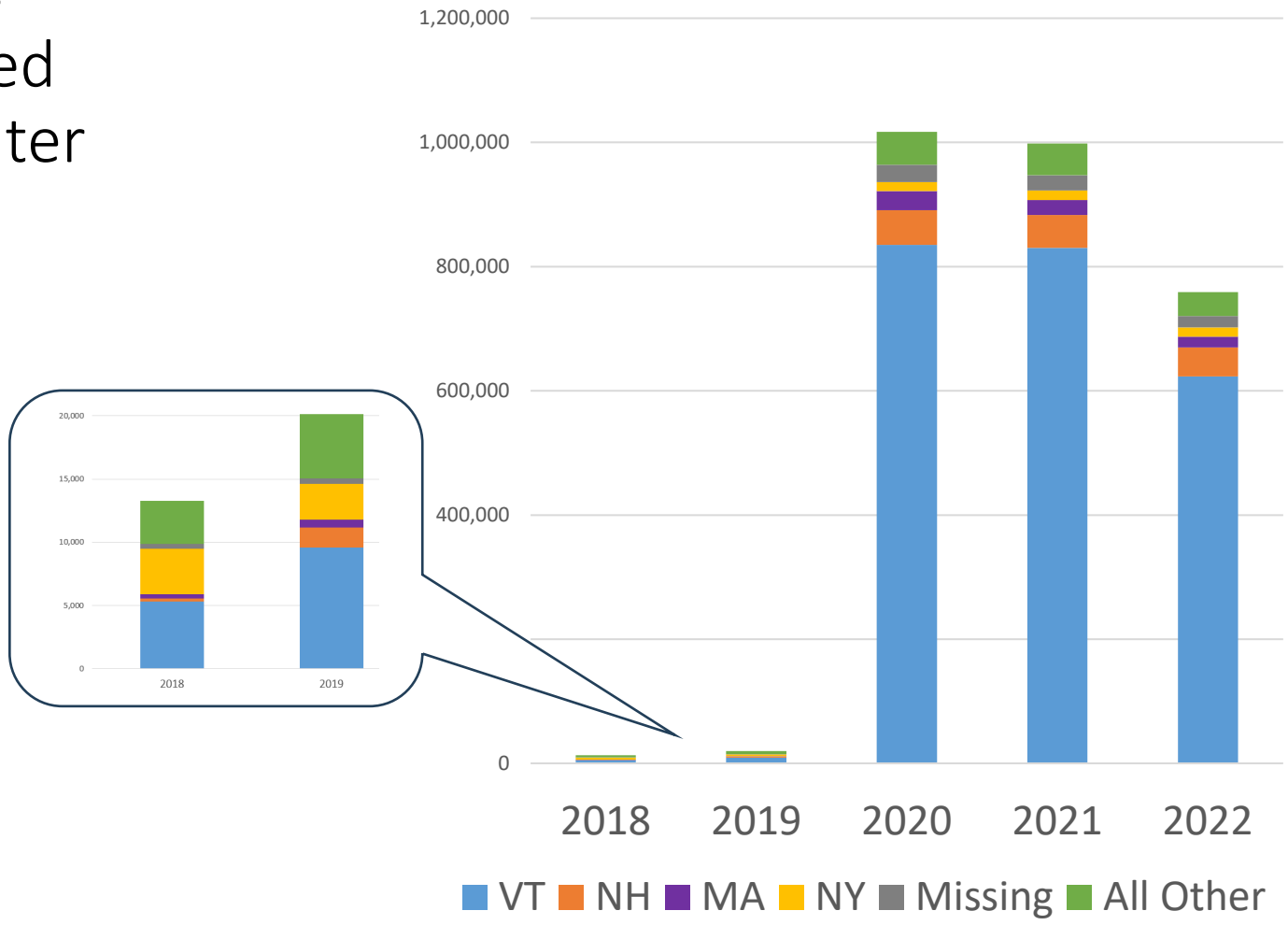
Services/1,000 Covered Lives



During the PHE, telehealth services by other states' providers shifted to a much greater reliance on VT providers.

- May be due to patients' continuing to use local providers but shifting from in-person to telehealth services.

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



A Note on Quality

Telehealth Quality

- Claims are not clinical records.
- More research is needed on the quality of care delivered through telehealth, including audio-only telemedicine.
- VPQHC has been tracking research related to clinical quality and audio-only telemedicine.

Audio-Only Telemedicine and Clinical Quality Tracking Sheet

VPQHC
Vermont Program for Quality in Health Care, Inc.

Audio-only Telemedicine & Clinical Quality Research Tracking - Last Updated December 22, 2023

Title	Source	Link	Description	Notes	Date
Use of New Audio-Only Telemedicine Claim Modifiers	JAMA Network Open	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2812892	A study describing early trends in the use of new audio-only telemedicine claims modifiers 93 and FQ in Washington State, which were introduced to improve the designation and identification of audio-only telemedicine claims.	In this study, uptake of new audio-only telemedicine claims modifiers 93 and FQ remained low; preliminary trends suggest that audio-only telemedicine may offer important means to access behavioral health and prenatal care.	12/18/2023
Family caregivers' satisfaction with telerehabilitation and follow-up intervention for older people with dementia: Randomized clinical trial	Geriatric Nursing	https://www.sciencedirect.com/science/article/abs/pii/S019745722300201X?via%3Dihub	The present study aimed to assess caregiver satisfaction with a telerehabilitation program and remote monitoring for older adults with dementia and their caregivers during the COVID-19 pandemic, as well as to identify the factors influencing caregiver satisfaction.	Both groups expressed positive views towards the treatment, with excellent ratings for audio and video quality, and a preference for Internet-based treatment over face-to-face.	9/11/2023
Care Redesign to Support Telemedicine Implementation During the COVID-19 Pandemic: Federally Qualified Health Center Personnel Experiences	Journal of the American Board of Family Medicine (JABFM)	https://www.jabfm.org/content/36/5/712.long	This study analyzes FQHC personnel accounts of care redesign strategies to support telemedicine implementation in 2020 and 2021, and identifies improvement opportunities.	Clinics' strategy of using phone visits to increase privacy underscores the need to continue offering audio-only visits in FQHCs, whose patients often have few alternative privacy-enhancing options.	8/30/2023
Impact of Telemedicine Modality on Quality Metrics in Diverse Settings: Implementation Science-Informed Retrospective Cohort Study	Journal of Medical Internet Research	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10413089/	The aim of this study was to assess telemedicine uptake and impact of visit modality (in-person vs video and phone visits) on primary care quality metrics in diverse, low socioeconomic status settings.	We found marginally better quality metrics (ie, blood pressure and depression screening) for in-person care versus video and phone visits; de-adoption of telemedicine was marked within 2 years in our population.	7/26/2023
Feasibility, Acceptability, and Health Outcomes Associated with Telehealth for Children in Families with Limited English Proficiency: A Systematic Review	Academic Pediatrics	https://pubmed.ncbi.nlm.nih.gov/37385437/	A systematic review of the feasibility, acceptability, and/or associations between telehealth delivery and health outcomes for interventions delivered synchronously in the US.	Telehealth appears acceptable and feasible among children in families with limited English proficiency (LEP), with a limited evidence base for specific health outcomes.	6/27/2023

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

Thanks to Our Collaborators

- Bi-State Primary Care Association
- BlueCross and BlueShield Vermont
- Cigna
- Dartmouth Health
- Department of Financial Regulation
- Department of Vermont Health Access (Medicaid)
- Green Mountain Care Board
- MVP
- The University of Vermont Health Network
- Vermont Association of Hospitals and Health Systems
- Vermont Medical Society

Contact

Ali Johnson, MBA

she | her

Quality Improvement Specialist

Vermont Program for Quality in Health Care, Inc.

alij@vpqhc.org