Telehealth Adoption and Utilization Among Louisiana Medicaid Beneficiaries Receiving Care Through FQHCs

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INTRODUCTION

Rapid Transformation of Telehealth

- Pandemic Impact: Telehealth rapidly transformed healthcare delivery during the COVID-19 pandemic, shifting from a niche service to a core component of ambulatory care.
- Role of FQHCs: Federally Qualified Health Centers (FQHCs), acting as key safety-net providers, played a central role in maintaining access to care for low-income and medically underserved populations, including Medicaid beneficiaries.
- Policy Enablement: Federal and state policy flexibilities enabled a broad expansion of telehealth services during this period. This included reimbursement parity, relaxed originating site restrictions, and increased adoption of audio-only and video visits.

Barriers and Long-Term Adoption Questions

- Knowledge Gap: Despite the rapid scale-up, there is a need to better understand the long-term patterns of telehealth adoption within Medicaid populations—particularly those receiving care through FQHCs.

The Relevance of Louisiana

- Ideal Exam Setting: Louisiana serves as an important setting to examine these questions due to its high Medicaid enrollment, persistent rural–urban populations, documented barriers in healthcare access, and high chronic disease burden.
- Policy Goals: Understanding how telehealth use has evolved within Louisiana FQHCs is essential for informing post-pandemic policy decisions and ensuring access to hybrid models of care.

AIM

To examine temporal trends and identify demographic and clinical factors associated with telehealth utilization among Louisiana Medicaid beneficiaries receiving care through federally qualified health centers (FQHCs).

METHOD

Study Design and Data Source

We conducted a retrospective cohort study using Louisiana Medicaid claims data from 2019–2023 to evaluate telehealth utilization patterns among safety-net populations.

Study Population

The study included 334,790 Medicaid beneficiaries with at least one encounter at FQHC during the study period.

Exposure / Outcome Definition

- Telehealth encounters were identified using place-of-service codes and telehealth-specific billing modifiers. (a combination of Place of Service (POS) codes (POS 02 and POS 10) and procedure modifiers (95))
- The primary outcome was telehealth utilization (yes/no) at the beneficiary level. The utilization is reflected by healthcare resource utilization (HCRU), including general encounters, inpatient and emergency department visits.

Covariates

- Demographic characteristics, e.g., age, sex, race/ethnicity, rural vs. urban residence;
- Clinical conditions, including anxiety, depression, hypertension, type 2 diabetes, and HIV/AIDS.

Statistical Analysis

- We conducted descriptive analyses to assess temporal trends in telehealth adoption across years and FQHC sites.
- Multivariable logistic regression models were used to estimate associations between patient characteristics and telehealth use, reporting odds ratios (ORs) and 95% confidence intervals (CIs).

RESULTS

- In 2023, Medicaid telehealth utilization reached record volume (32.34% of FQHC patients) as state flexibilities and clinical workflows matured. However, adjusted odds of telehealth use relative to pre-pandemic baselines moderated over time (2020 OR: 116.55 vs 2023 OR: 51.38; Table 2).
- This divergence demonstrates that telehealth transitioned from an acute, highly concentrated emergency response in 2020 into a broad, normalized hybrid care model across the general FQHC population by 2023.

RESULTS

Table 1. FQHC Telehealth Adoption & Utilization Trends

Category	2019	2020	2021	2022	2023
Provider Utilization (Supply)					
# FQHC Providers with ≥ 1 TH Claim	22	738	702	701	773
# of Total Providers using TH	85	1707	1522	1322	2241
Patient Utilization (Demand)					
# Total Beneficiaries with ≥ 1 TH Visit	1425	77451	63567	55496	101933
% of FQHC Population using TH	0.44%	24.20%	20.10%	17.90%	32.34%
Mean TH Visits per User	1.91	5.16	4.80	4.83	4.83
HCRU Indicators (Total Volume)					
Total FQHC Encounters (All)	1229915	1163530	1191687	1155046	1057326
Total Emergency Dept (ED) Visits	1092090	907158	916785	833871	848081
Total Inpatient (IP) Admissions	354822	375693	373987	356172	350135

*HCRU: Health Care Resource Utilization

In multivariable analyses,

- Telehealth use was significantly higher among patients with mental and chronic health conditions,
  - anxiety (OR 1.53, 95% CI 1.51–1.55), depression (OR 1.33, 95% CI 1.32–1.35),
  - hypertension (OR 1.26, 95% CI 1.24–1.27), type 2 diabetes (OR 1.19, 95% CI 1.17–1.21
- Asian beneficiaries demonstrated the lowest likelihood of virtual care use (OR 0.56), followed equally by Hispanic and Black beneficiaries (OR 0.77). These patterns suggest that race and ethnicity may influence how different patient groups engage with telehealth services in safety-net settings.

Table 2. Factors Associated with Telehealth Use

	Odds Ratio	95% CI	
Age at First Visit	1.00	1.00	1.01
Female	1.22	1.21	1.23
Race- White	ref		
Race- Asian	0.56	0.53	0.60
Race- Black	0.77	0.76	0.77
Race- Hispanic	0.77	0.76	0.77
Race- Other	0.82	0.80	0.84
Rural	0.63	0.63	0.64
Obesity	1.23	1.22	1.24
T2DM	1.19	1.17	1.21
Hypertension	1.26	1.24	1.27
Asthma/COPD	1.17	1.16	1.19
CKD	0.93	0.90	0.96
CVD	0.88	0.86	0.89
Malignancy	1.07	1.03	1.10
SUD/OUD	1.00	0.98	1.01
HIV/AIDS	1.32	1.27	1.37
Anxiety	1.53	1.51	1.55
Depression	1.33	1.32	1.35
Year 2019	ref		
Year 2020	116.55	110.58	122.85
Year 2021	76.67	72.73	80.82
Year 2022	59.75	56.68	62.99
Year 2023	51.38	48.73	54.17

CONCLUSIONS

- Established Growth: Telehealth has become a staple of Louisiana FQHC care delivery, with rapid expansion in both provider participation and utilization from 2019 to 2023.
- Existing Limited Access to Services: Barriers persist, particularly regarding telehealth adoption among rural residents and minority Medicaid beneficiaries.

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