

Experiences of Medicaid Programs and Health Centers in Implementing Telehealth

Lori Uscher-Pines, Kathryn Bouskill, Jessica Sousa, Mimi Shen, Shira H. Fischer



For more information on this publication, visit www.rand.org/t/RR2564

Published by the RAND Corporation, Santa Monica, Calif.

© Copyright 2019 RAND Corporation

RAND® is a registered trademark.

Limited Print and Electronic Distribution Rights

This document and trademark(s) contained herein are protected by law. This representation of RAND intellectual property is provided for noncommercial use only. Unauthorized posting of this publication online is prohibited. Permission is given to duplicate this document for personal use only, as long as it is unaltered and complete. Permission is required from RAND to reproduce, or reuse in another form, any of its research documents for commercial use. For information on reprint and linking permissions, please visit www.rand.org/pubs/permissions.

The RAND Corporation is a research organization that develops solutions to public policy challenges to help make communities throughout the world safer and more secure, healthier and more prosperous. RAND is nonprofit, nonpartisan, and committed to the public interest.

RAND's publications do not necessarily reflect the opinions of its research clients and sponsors.

www.rand.org

Preface

Telehealth, the provision of health care from a distance by means of telecommunications technology, can improve the quality of care and access to it in underserved communities by increasing access to providers, reducing wait times, and improving convenience. However, despite its potential, telehealth is underutilized by safety-net providers due to a range of policy, organizational, and logistical barriers. This report describes the results of semistructured discussions with officials representing seven state Medicaid programs and with providers and health center leadership representing 19 Federally Qualified Health Centers (FQHCs) in those states. It describes how rural and urban FQHCs use various forms of telehealth and how Medicaid policy influences the delivery of telehealth services to underserved populations. This report will be of interest to regulators, policymakers, and safety-net providers interested in leveraging telehealth as a tool to increase access to care.

This research was funded by the Office of the Assistant Secretary for Planning and Evaluation and carried out within the Payment, Cost, and Coverage Program in RAND Health Care to explore the experiences of state Medicaid programs and FQHCs in supporting telehealth and delivering telehealth services.

RAND Health Care, a division of the RAND Corporation, promotes healthier societies by improving health care systems in the United States and other countries. We do this by providing health care decisionmakers, practitioners, and consumers with actionable, rigorous, objective evidence to support their most complex decisions. For more information, see www.rand.org/health-care, or contact

RAND Health Care Communications

1776 Main Street

P.O. Box 2138

Santa Monica, CA 90407-2138

(310) 393-0411, ext. 7775

RAND_Health-Care@rand.org

Contents

Preface	iii
Figures	v
Tables	vi
Summary.....	vii
Acknowledgments	x
Abbreviations	xi
1. Introduction	1
2. Methods	4
Telehealth Definition.....	4
State Selection	4
Telephone Discussions	9
Analysis.....	9
3. Results	11
Participant Characteristics.....	11
Types of Telehealth Offered and Models of Delivery	15
Overview of Policies in Sample States	22
Experiences of Implementing Telehealth.....	28
Interaction of State Policy and Use of Telehealth.....	37
4. Conclusions	38
Appendix. Descriptions of Policies in Each State	41
References	49

Figures

Figure 1.1. State Variation in Telehealth Uptake by Health Centers in 2016	2
Figure 2.1. Participating States	6

Tables

Table 2.1. Discussions by Type and by State	8
Table 3.1. State Characteristics	12
Table 3.2. FQHCs in the Study Sample	13
Table 3.3. Policy Summary for Participating Medicaid Programs.....	22
Table A.1. State 1 Medicaid Policies	41
Table A.2. State 2 Medicaid Policies	42
Table A.3. State 3 Medicaid Policies	43
Table A.4. State 4 Medicaid Policies	44
Table A.5. State 5 Medicaid Policies	45
Table A.6. State 6 Medicaid Policies	46
Table A.7. State 7 Medicaid Policies	48

Summary

Telehealth, the provision of health care from a distance by means of telecommunications technology, can improve the quality of care and access to it in underserved communities by increasing access to providers, reducing wait times, and improving convenience. However, despite its potential, telehealth is underutilized by safety-net providers, including Federally Qualified Health Centers (FQHCs), due to a range of policy, organizational, and logistical barriers. Research that facilitates state-to-state learning can inform both Medicaid policy and Medicare policy going forward and provide lessons learned for FQHCs interested in starting or expanding telehealth programs.

To explore the experiences of state Medicaid programs and FQHCs in supporting telehealth and delivering telehealth services, the Office of the Assistant Secretary for Planning and Evaluation (ASPE) commissioned RAND researchers to conduct telephone discussions with representatives of seven state Medicaid programs and 19 urban and rural FQHCs in the same states. Discussions occurred from June to August 2018 and addressed how FQHCs in selected states are using telehealth, how the delivery of telehealth services is structured, barriers and facilitators of telehealth, and how Medicaid policy influences telehealth implementation.

Types and Models of Telehealth

Live video telehealth, typically telebehavioral health, was the most prevalent type of telehealth among FQHCs in our sample; however, FQHCs also engaged in store-and-forward telehealth and remote patient monitoring (RPM). A minority of FQHCs in our sample that offered telehealth served as originating sites only; the most common model was a combination model in which FQHCs both contract with external organizations for certain telehealth services (FQHC as originating site) and serve their own health center network for others (FQHC as originating and distant site).

Medicaid Policies

The telehealth policies of the seven state Medicaid programs in our sample varied across numerous dimensions. Four of the seven state Medicaid programs reimbursed for store-and-forward telehealth, and two reimbursed for RPM. Four programs had patient informed consent requirements, and three required telepresenters to be present with patients at originating sites. In addition, two programs restricted the types of specialists or services that can be provided by telehealth, and five provided a transmission and/or facility fee to eligible originating sites. Participants highlighted several weaknesses of Medicaid policies in one or more states, including general lack of clarity on which services were allowed by the Medicaid program, ambiguity around telepresenter requirements, lack of authorization for FQHCs to serve as distant sites in

the federal Medicare program and in select state Medicaid programs, and insufficient reimbursement.

Barriers and Facilitators of Telehealth Implementation

FQHC stakeholders identified multiple barriers beyond reimbursement, including infrastructure issues (e.g., insufficient broadband), technology costs, telehealth as a cost center, billing challenges, lack of buy-in among FQHC providers, challenges specific to the patient population (e.g., elderly patients, homeless patients), complexities in adjusting clinic workflow, inadequate supply of specialists to provide telehealth services to FQHC patients, complex and time-consuming logistics around credentialing and licensing, and challenges in working with remote providers. Nonetheless, FQHC stakeholders generally believed they could overcome these various barriers to telehealth implementation if reimbursement, and the risk of losing revenue in offering telehealth services, were improved. Stakeholders identified several facilitators that supported telehealth implementation, including grant funding, the presence of a clinic champion, collaboration with payers, and implementation of promising practices related to workflow.

Planned Changes to Telehealth Offerings

FQHC stakeholders described a range of planned changes to expand or modify the implementation of telehealth services. While most FQHCs that offered telehealth planned to expand existing offerings by serving additional sites or increasing volume, offer additional specialties, and/or modify workflow or other aspects of implementation, a handful discussed plans to discontinue their telehealth programs or described previous pilot programs that were not sustained. These experiences suggest that telehealth is sometimes implemented as a short-term, rather than long-term, strategy (e.g., in response to a specific vacancy).

Conclusions

FQHCs are experimenting with telehealth for a range of conditions, working with different types of remote providers, and confronting different telehealth policies and implementation barriers, depending on their locations and payer mix. While diversity of experiences makes it difficult to generalize about telehealth implementation in the safety net, we identified several common themes and associated considerations for policymakers, payers, and FQHCs.

- Authorizing FQHCs to serve as both originating and distant sites may spur the growth of telehealth in the safety net.
- FQHCs and their partners would benefit from additional clarification of telehealth policies, especially as they relate to FQHCs, and education regarding these policies.
- Telehealth may be most effective if implemented as part of a suite of strategies to address workforce shortages in rural areas.

- FQHCs would benefit from case studies of profitable telehealth programs.
- Telehealth services can be implemented as a short-term or long-term solution, but likely program duration is seldom addressed in telehealth policies and practices.
- Future research should inventory telehealth policies specific to FQHCs and explore relationships between policies and implementation of telehealth by FQHCs.

Acknowledgments

We are grateful to the funders of this project at the U.S. Department of Health and Human Services (HHS) Office of the Assistant Secretary for Planning and Evaluation (ASPE). We thank Caroline Taplin for her support. We also thank our external quality assurance reviewer, Karen Rheuban (University of Virginia).

Among our colleagues at the RAND Corporation, we are grateful to Justin Timbie for his role as Senior Adviser on the project, and to our RAND internal quality assurance reviewers, Melony Sorbero, Peter Hussey, and Paul Koegel. We thank the following individuals for their contributions to project deliverables, coordination, planning, and logistics: Ashley Krantz, Spencer Case, and Ateev Mehrotra.

We extend our sincerest gratitude to the dozens of individuals who participated in the 26 discussions that served as the primary data source for this report. We are indebted to them for sharing both their successes and their challenges and providing insights that can help other FQHCs implement telehealth. The findings reported here are possible only because of their participation.

This research was conducted under contract with ASPE, an office within HHS. The project was conducted with ASPE input; however, the material contained in this report is the responsibility of the study team alone and does not necessarily reflect the views of the sponsoring agency.

Abbreviations

ATA	American Telemedicine Association
ASPE	Office of the Assistant Secretary for Planning and Evaluation
CHIP	Children's Health Insurance Program
e-consult	electronic consultation
ECHO	Extension for Community Healthcare Outcomes
EHR	electronic health record
eNLC	Enhanced Nurse Licensure Compact
FFS	fee-for-service
FQHC	Federally Qualified Health Center
HCV	Hepatitis C virus
HRSA	Health Resources and Services Administration
IMLC	Interstate Medical Licensure Compact
MACPAC	Medicaid and CHIP Payment and Access Commission
MCO	managed care organization
PTLC	Physical Therapy Licensure Compact
RPM	remote patient monitoring
UDS	Uniform Data System

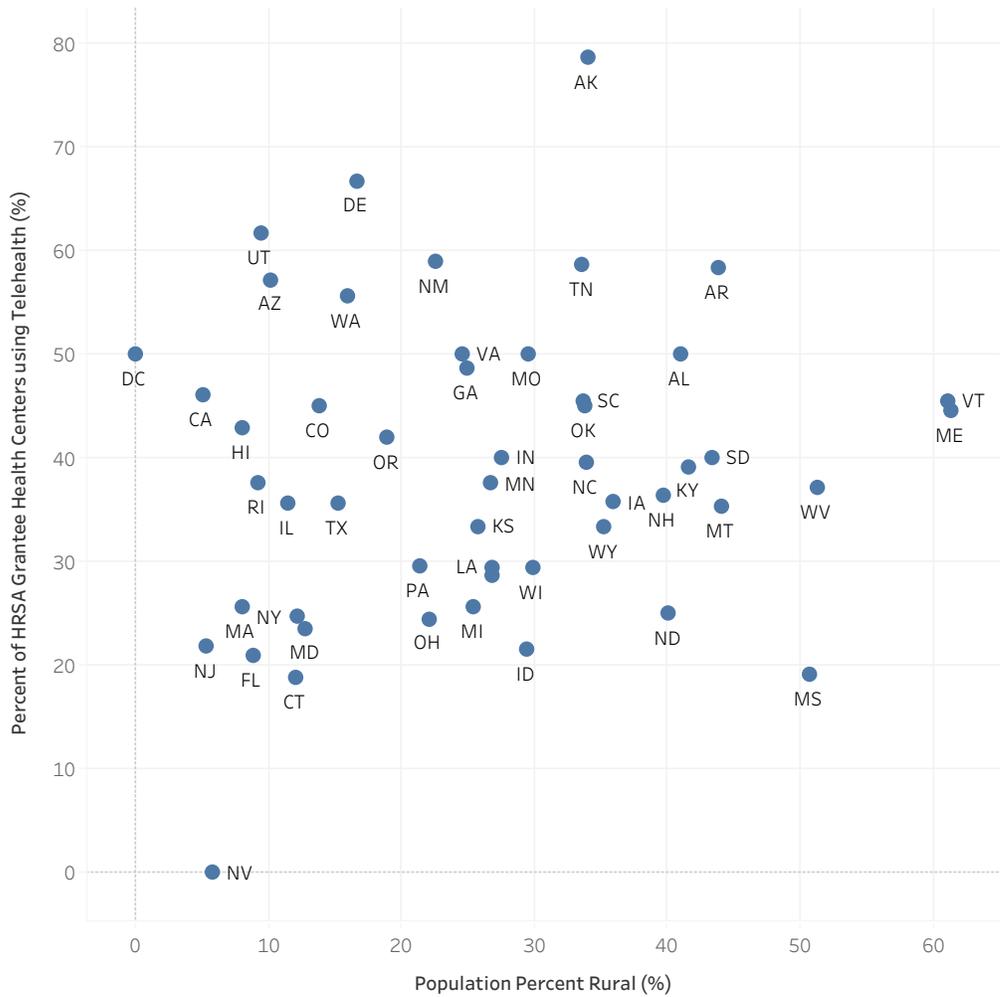
1. Introduction

Telehealth, the provision of health care services at a distance by means of telecommunications technology, has long been recognized as a tool that can improve the quality of care and access to it. Telehealth can bring medical care into communities with limited access to providers or facilities, reduce wait times, and improve convenience. However, despite its potential, telehealth is underutilized by safety-net providers due to a range of policy, organizational, and logistical barriers.

In the United States, community health centers, including Federally Qualified Health Centers (FQHCs) funded under Section 330 of the Public Health Service Act, provide care to approximately 28 million people, 49 percent of whom are covered by Medicaid (National Association of Community Health Centers, 2018b). Forty-four percent of FQHCs are in rural communities, many of which face challenges in addressing the needs of vulnerable populations due to workforce shortages (National Association of Community Health Centers, 2018b). FQHCs in both urban and rural areas, however, can benefit from new delivery models and innovations that expand access to care—given patient challenges with transportation and difficulties obtaining appointments with specialists (Mehrotra et al., 2016).

In 2016, the Health Resources and Services Administration (HRSA) reported that 40 percent of community health centers nationally offered some type of telehealth, with greater use of telehealth in rural areas (HRSA, 2016a). Although the proportion of FQHCs with telehealth programs varies significantly by state (Center for Connected Health Policy, 2017), evidence suggests that telehealth use is likely growing among FQHCs. Given this trend, more work must be done to ensure that telehealth can maximize its potential to increase access for the underserved while, at the same time, preventing overuse and controlling costs. Variation in the proportion of FQHCs offering telehealth by state is shown in Figure 1.1.

Figure 1.1. State Variation in Telehealth Uptake by Health Centers in 2016



SOURCE: U.S. Census Bureau, 2012, and HRSA, 2016b.

The implementation of telehealth by FQHCs, including decisions to offer telehealth and how to structure telehealth programs, is influenced by policy at both the federal and state levels. At the federal level, Medicare policies and the Ryan Haight Act, which regulates prescribing of controlled substances, are important. At the state level, telehealth implementation is affected by the policies of state Medicaid programs and licensing boards, as well as by regulations governing commercial payers. To date, Medicare fee-for-service (FFS) has taken a conservative approach to the coverage of telehealth services, limiting telehealth reimbursement to select live video encounters in which patients present to a health care facility in a rural community (i.e., in a nonmetro county or in a Health Professional Shortage Area located in a rural census tract). This approach has been shown to be highly effective in reaching patients with the greatest access barriers; however, it has also had the effect of keeping telehealth utilization rates low. In 2013, less than 1 percent of rural Medicare beneficiaries received a telehealth visit (Mehrotra et al., 2016).

State Medicaid policies, in contrast, are less restrictive. The Centers for Connected Health Policy reported that, in 2018, 49 states and Washington, D.C., provided reimbursement for some form of live video visits in Medicaid FFS. Yet, many telehealth policies varied by state, including the definition of telehealth, services covered (e.g., store-and-forward telehealth, remote patient monitoring [RPM]), allowable originating sites, and whether telehealth services can be provided to urban residents (Center for Connected Health Policy, 2017).

Numerous barriers to establishing and maintaining telehealth programs in outpatient settings have been identified in prior research. These barriers include low and inconsistent reimbursement across payers, lack of provider acceptance, lack of interoperability, challenges integrating telehealth into established workflows, lack of a clinic champion, lack of broadband, and credentialing and licensing processes (Antoniotti, Drude, and Rowe, 2017; Center for Connected Health Policy, 2017; Institute of Medicine, 2012; Center for Connected Health Policy, undated; Moore et al., 2016; Wilson et al., 2017; Tracy et al., 2008; Nelson et al., 2016; Uscher-Pines et al., 2016; Uscher-Pines, Rudin, and Mehrotra, 2017; Uscher-Pines and Kahn, 2014). It is clear that both Medicare (which accounts for only a small share of FQHC spending but influences other payers' payment policies) and state Medicaid policy have a profound influence on use of telehealth by FQHCs in the United States, yet there is limited research on how state Medicaid programs and their varied policies on telehealth have served to encourage innovation and its judicious use. As described in the 2018 Medicaid and CHIP Payment and Access Commission (MACPAC) Report to Congress on Medicaid and the Children's Health Insurance Program (CHIP), states seeking to implement or expand coverage of telehealth would benefit from additional research on the use of telehealth for the Medicaid population. Shared state insights can also help other states, providers, health plans, and researchers gain a more robust understanding of the impact of telehealth (MACPAC, 2018).²⁰ Research that facilitates state-to-state learning can inform both Medicaid and Medicare policy going forward and provide lessons learned for health centers interested in starting or expanding telehealth programs.

The purpose of this project was to explore the experiences of Medicaid programs in supporting telehealth and the experience of FQHCs in delivering telehealth services in seven states. We aimed to describe how FQHCs in selected states are using telehealth, how the delivery of telehealth services is structured, and how Medicaid policy influences implementation of telehealth. The results presented here will be of interest to regulators, policymakers, and safety-net providers interested in leveraging telehealth as a tool to increase access to care.

2. Methods

To explore the experiences of Medicaid programs and FQHCs in implementing telehealth, we conducted a qualitative study from June to August 2018. We conducted 26 semistructured discussions with state Medicaid officials and FQHC leaders and providers in seven states with diverse telehealth policies.

Telehealth Definition

Although the definition of telehealth varies by state, for the purposes of this research we focused on provider-to-patient telehealth, in which a remotely located provider is directly engaged in the diagnosis and treatment of a patient by means of telecommunications technology. Modalities that we considered in scope included the following: (1) synchronous live video telehealth between a patient and provider; (2) asynchronous store-and-forward telehealth in which patient data are stored and analyzed by a provider in a different location at a different time; and (3) RPM in which technology enables monitoring of patients outside of health care settings (e.g., in the home).

There are a number of telehealth-related services that FQHCs may engage in that we did not consider in scope. We excluded telephone visits, for example, because many state Medicaid programs exclude audio-only visits from their definitions of telehealth. Furthermore, we excluded electronic consultations (e-consults) and Project ECHO (Extension for Community Healthcare Outcomes) because these services are provider-to-provider telehealth services, rather than provider-to-patient services. E-consults allow primary care providers to seek advice from remotely located specialists, and Project ECHO links primary care providers to specialists via video for mentoring purposes. Many of the FQHCs we interviewed used these other services. While we briefly describe those experiences in this report, our focus is on the direct provision of care to patients via telehealth and the state Medicaid policies that address this type of telehealth.

State Selection

After consultation with the Office of the Assistant Secretary for Planning and Evaluation (ASPE), RAND researchers elected to use a combination of typical and extreme case sampling to select seven states for inclusion in the study. In selecting states, we also sought to obtain variation on U.S. region, population size, proportion of residents in rural communities, and proportion of Medicaid beneficiaries in managed care. The goal of typical case sampling is to identify and understand the key aspects of a phenomenon as they manifest under ordinary circumstances. On the other hand, the goal of extreme case sampling is to select for highly unusual “outlier” cases of the phenomenon of interest. Extreme case sampling typically occurs in

conjunction with other sampling strategies, such as typical case sampling, to develop richer, more in-depth understanding.

Although no two states are exactly alike with respect to Medicaid policy and it is difficult to define a “typical” case, the large majority of states earn an American Telemedicine Association (ATA) composite grade of B (n = 34),¹ cover telehealth in urban areas (n = 48), cover telebehavioral health services (n = 49), cover two-way video telehealth (n = 48), and allow patients’ homes as originating sites (i.e., sites where the patient is located; n = 40) (Medicare Payment Advisory Commission, 2018).²

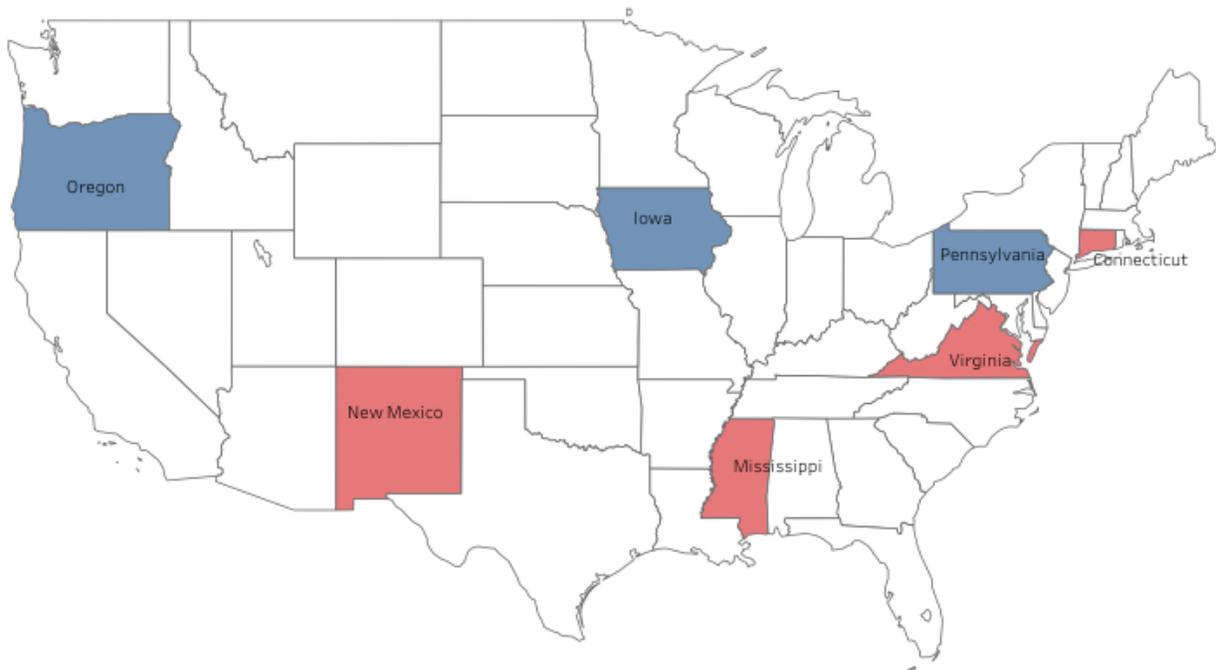
Given that there are a handful of common features and quite a few examples of unique, outlier cases, we chose to sample for typical and unique cases. We first selected three states (Oregon, Pennsylvania, and Iowa) that earned an ATA composite score of B, given this was the most common grade, covered live video visits, covered telebehavioral health, allowed patients’ homes as originating sites, and did not include geographic restrictions. These states represent typical cases for our purposes. In addition, we selected four extreme cases (Connecticut, Mississippi, Virginia, and New Mexico) to learn more about how uncommon policies (either supportive or restrictive of telehealth) ultimately affect FQHC experiences with and utilization of telehealth. We selected Connecticut for potential inclusion because its ATA grade recently improved from an F to a B due to the passage of reforms ensuring parity coverage, and it is the state with the lowest reported use of telehealth by health centers (19 percent). We selected Mississippi, Virginia, and New Mexico because they all have uncharacteristically favorable policy environments. Mississippi and Virginia, for example, received an A for their ATA grade and cover both store-and-forward telehealth and RPM. New Mexico has true parity for both FFS and Medicaid managed care. It should be noted that one state Medicaid program that we invited to participate declined, and we recruited until we secured participation from the seven Medicaid programs listed here.

Figure 2.1 shows the state Medicaid programs that participated in the study. Complete descriptions of each program’s telehealth policies are included in the appendix.

¹ The ATA assigns a composite grade (A, B, C, or F) to each state based on its telehealth policies. Each composite grade is determined based on 13 indicators related to telemedicine coverage and reimbursement. The 13 indicators include measures for telemedicine parity laws and Medicaid coverage for telemedicine. Most of the indicators (10 of 13) capture Medicaid-related policies, including categories such as allowed settings and conditions, eligible technologies and providers, and geographic restrictions. The purpose of the grading, first reported in 2014, is to facilitate comparisons of telehealth policy across states. In the most recent report from 2017, nine states received composite grades of A, 34 states received Bs, and eight received Cs (ATA, 2017).

² There is much less consistency around coverage of RPM (n = 22), coverage of store-and-forward telehealth (n = 13), and complete parity between telehealth and in-person services (n = 9).

Figure 2.1. Participating States



NOTE: For each of the indicated states, RAND researchers engaged at least one Medicaid official and two or three FQHCs; states shaded in blue represent “typical” policy environments, while red shading indicates “extreme” states.

Within each state, RAND researchers first identified one or more state Medicaid officials to participate in a telephone discussion with the study team. Medicaid officials with telehealth expertise were identified through each state’s Medicaid director. Once we secured the participation of the state Medicaid program, we began recruiting representatives of two or three FQHCs within each state. We used maximum diversity sampling to select FQHCs, sampling for variation within each state on location (urban versus rural) and use of telehealth (adopter versus nonadopter). To select FQHCs, we used 2016 Uniform Data System (UDS) data from HRSA (HRSA, 2018; HRSA, 2016c). This publicly available data source includes FQHC characteristics (e.g., name, payer mix, location, use of telehealth) and points of contact. We also contacted individuals (n = 9) associated with community health center associations, primary care associations, and telehealth organizations in the target states to request the contact information of individuals at FQHCs with established telehealth programs.

To ensure representation of both rural and urban health centers and adopters and nonadopters of telehealth within each state, we recruited in stepwise fashion. We began by contacting one urban and two rural health centers in each state, including at least one nonadopter. We continued to recruit until we secured the participation of up to three FQHCs per state that varied along the dimensions of interest. We reached out to a total of 52 FQHCs across all seven states in the sample, with a final participation rate of 37 percent. Representatives of state Medicaid programs that participated in discussions included department directors, division directors, department

medical directors, department medical officers, unit supervisors, program specialists, policy analysts, and program managers. Representatives of FQHCs included chief executive officers, chief information officers, chief operating officers, billing managers, telehealth administrators, medical directors, chief medical officers, psychiatry/behavioral health directors, nurse practitioners, practice managers, and project directors. A total of 43 representatives from state Medicaid programs and FQHCs participated in telephone discussions.

Table 2.1 shows the full list of participating programs and FQHCs by state.

Table 2.1. Discussions by Type and by State

State Number	Type	Health Center Setting	Health Center Reported Use of Telehealth (2016)	Number of Participants
1	FQHC	Rural	No	1
1	FQHC	Urban	Yes	1
1	Medicaid	N/A	N/A	3
2	FQHC	Urban	Yes	1
2	FQHC	Rural	Yes	3
2	FQHC	Rural	Yes	1
2	Medicaid	N/A	N/A	2
3	FQHC	Urban	No	1
3	FQHC	Rural	Yes	2
3	FQHC	Rural	Yes	1
3	Medicaid	N/A	N/A	2
4	FQHC	Rural	Yes	2
4	FQHC	Rural	Yes	4
4	FQHC	Urban	No	2
4	Medicaid	N/A	N/A	1
5	FQHC	Rural	Yes	1
5	FQHC	Rural	No	1
5	FQHC	Urban	Yes	4
5	Medicaid	N/A	N/A	2
6	FQHC	Rural	Yes	2
6	FQHC	Rural	Yes	1
6	FQHC	Urban	No	1
6	Medicaid	N/A	N/A	1
7	FQHC	Urban	No	1
7	FQHC	Rural	Yes	1
7	Medicaid	N/A	N/A	1

SOURCE: HRSA, 2016b.

Telephone Discussions

State Medicaid officials and FQHC representatives were invited to participate in a 60-minute telephone discussion with the study team. Discussions followed a semistructured protocol, customized depending on the type of participant (Medicaid program, FQHC telehealth adopter, or FQHC telehealth nonadopter). Topics for Medicaid staff included state policy on telehealth, quantity and type of telehealth occurring in the state, goals and motivation behind specific telehealth policies, and lessons learned regarding the regulation of telehealth. Topics for health centers included current use of telehealth; history of telehealth use; goals for the telehealth program; impression of state policies regarding telehealth, particularly Medicaid policies; perceived barriers and facilitators to telehealth; sources of funding; impact of telehealth on health center and patient outcomes; and plans for the future.

Two RAND staff members trained in qualitative research conducted each discussion, with one facilitating and the other taking notes to inform the development of the codebook.³ Discussions were recorded and transcribed. All discussions were completed between June and August 2018. RAND's institutional review board approved this project, determining that it was exempt.

Analysis

Discussion transcriptions were uploaded into Dedoose (Dedoose, 2016), a cloud-based qualitative analysis program that facilitates team-based coding and data analysis. Transcripts were then coded based on a codebook created by the research team. We employed an inductive and deductive approach to the development of the codebook, which accounted for key research questions covered within the discussion protocols, as well as novel topics that emerged. The codebook denoted the domains of interest to this evaluation (e.g., goals of the telehealth program, barriers to telehealth implementation) and included detailed code descriptions, as well as examples of within- and out-of-scope concepts. The project director, a subject-matter expert in telehealth and qualitative data analysis, coded the first set of five interviews and conducted a coding training for three additional team members involved in coding. Following training, each team member was assigned an additional five to eight transcripts to code. To ensure consistent application of codes, 50 percent of transcripts were double-coded, and discrepancies were discussed and resolved by consensus. The project director also provided feedback to individual team members in cases where she observed systemic differences in coding practices. The coding team held regular meetings to resolve any discrepancies and to address questions in the application of codes.

Upon completion of coding, the team reviewed the coded excerpts for key themes. Themes were identified through well-established techniques, including repetition (e.g., if a theme was expressed more than three times) and comparing both within and across states for similarities and

³ In two cases, only one staff member participated.

differences (Ryan and Bernard, 2003). In addition, we searched for themes (e.g., facilitators of and barriers to telehealth use) that were common to multiple types of stakeholders (e.g., telehealth adopters versus nonadopters and FQHCs versus Medicaid officials). The themes that emerged from these conversations are described in this report, accompanied by illustrative quotes.

3. Results

In the sections that follow, we first describe the state Medicaid programs and FQHCs that participated in the study. We then describe the range of telehealth services, modalities, and delivery models we identified. Next, we describe state Medicaid programs' policies on telehealth and the experiences of FQHCs in implementing telehealth, including barriers and facilitators to implementation. Lastly, we present findings on the relationship between telehealth policy and the decisions of FQHCs to offer telehealth services.

Participant Characteristics

Study States and Medicaid Programs

Representatives of Medicaid programs in seven states participated in semistructured discussions. Among states in the sample, reported use of telehealth by health centers ranged from 19 percent to 59 percent, and the proportion of residents from rural areas ranged from 12 percent to 56 percent (U.S. Census Bureau, 2012). The total number of Medicaid and CHIP enrollees in study states ranged from approximately 600,000 to 2.8 million (Centers for Medicare and Medicaid Services, 2018). The proportion of Medicaid beneficiaries enrolled in any type of managed care ranged from 0 percent to 92 percent (Henry J. Kaiser Family Foundation, 2018a). Six of the seven states participated in one or more compacts for multistate licensure.

FQHCs

Representatives of 19 FQHCs participated in semistructured discussions. Twelve (63 percent) participating FQHCs were located in rural communities. Although HRSA UDS data indicated that six (32 percent) of the FQHCs in our sample were not offering telehealth services as of 2016, interviews confirmed that eight (42 percent) were not currently offering telehealth services. Two FQHCs designated as adopters by UDS in 2016 were classified as nonadopters in our sample because they had ended their telehealth programs or were not offering services that met our definition of telehealth. Table 3.1 displays characteristics of states, and Table 3.2 displays characteristics of specific FQHCs in the sample.

Table 3.1. State Characteristics

State No.	Region ^b	Any Licensure Compact ^c	ATA Composite Grade ^d	Medicaid Expansion ^e	Total Number of Medicaid & CHIP Enrollees ^a	Percentage, Medicaid & CHIP Enrollees in Any Type of Managed Care ^f	Percentage, Population Rural ^g	Percentage, HRSA Grantee Health Centers Using Telehealth (2016) ^h
1	Northeast	No	B	Adopted	900,000	0	12	19
2	Midwest	Yes (IMLC, eNLC, PTLC)	B	Adopted	600,000	90	36	36
3	South	Yes (IMLC, eNLC, PTLC)	A	Not Adopted	700,000	69	51	19
4	West	Yes (eNLC)	A	Adopted	900,000	77	23	59
5	Northeast	Yes (IMLC; delayed implementation)	B	Adopted	2,800,000	92	21	30
6	South	Yes (eNLC)	A	Not Adopted	1,100,000	68	25	50
7	West	Yes (PTLC)	B	Adopted	1,100,000	81	19	42

^a Rounded to the nearest 100,000 (Centers for Medicare and Medicaid Services, 2018).

^b U.S. Census Bureau, 2017.

^c Licensure compacts allow health care services to be delivered across state lines without requiring providers to obtain a separate license in each state. The Interstate Medical Licensure Compact (IMLC) allows allopathic and osteopathic physicians to practice medicine across state lines (IMLC, 2018), and the Enhanced Nurse Licensure Compact (eNLC) permits similar multisite practice by registered nurses and licensed practical nurses (National Council of State Boards of Nursing, 2018a). Similar compacts include the Advanced Practice Registered Nurse Compact for advanced practice registered nurses (National Council of State Boards of Nursing, 2018b), the Psychology Interjurisdictional Compact for licensed psychologists (Association of State and Provincial Psychology Boards, 2018), and the Physical Therapy Licensure Compact (PTLC) for physical therapists (Infinx Healthcare, 2018).

^d ATA, 2017.

^e Henry J. Kaiser Family Foundation, 2018b.

^f Henry J. Kaiser Family Foundation, 2018a.

^g U.S. Census Bureau, 2012.

^h HRSA, 2016b.

Table 3.2. FQHCs in the Study Sample

State No.	Region ^d	Location ^e	Unique Patients Served/ Year ^f	Payer Mix ^f	Race/ Ethnicity ^f	No. of Sites	Telehealth Use ^a	Types of Telehealth Offered
1	Northeast	Rural	6,817	60% Medicaid, 9% Medicare, 18% uninsured, 13% other	78% White, 7% Black, 15% Latino, 0% Other ^b	2	No	—
1	Northeast	Urban	17,251	55% Medicaid, 7% Medicare, 24% uninsured, 14% Other	26% White, 47% Black, 73% Latino, 10% Other	12	No	—
2	Midwest	Rural	16,149	36% Medicaid, 6% Medicare, 33% uninsured, 25% other	80% White, 5% Black, 12% Latino, 3% Other	5 ^b	Yes	Live video: telepsychiatry, ^g telebehavioral health ^h
2	Midwest	Rural	16,221	52% Medicaid, 10% Medicare, 11% uninsured, 28% other	74% White, 8% Black, 13% Latino, 5% Other	3	Yes	Live video: telebehavioral health
2	Midwest	Urban	36,898	37% Medicaid, 10% Medicare, 35% uninsured, 18% other	43% White, 11% Black, 36% Latino, 10% Other	15 ^c	No	—
3	South	Rural	13,752	35% Medicaid, 14% Medicare, 22% uninsured, 30% Other	7% White, 92% Black, 1% Latino, 0% Other	7	Yes	Live video: telepsychiatry, school-based telehealth for telepsychiatry
3	South	Rural	46,183	33% Medicaid, 33% sliding scale, 15% private insurance	40% White, 54% Black, 8% Latino, 3% Other	25	Yes	Live video: telenutrition, telebehavioral health, teleprimary care Store-and-forward: electrocardiogram RPM
3	South	Urban	29,480	27% Medicaid, 8% Medicare, 51% uninsured, 14% Other	53% White, 40% Black, 9% Latino, 3% Other	24	No	—
4	West	Rural	71,892	45% Medicaid, 16% Medicare, 15% uninsured, 5% other	39% White, 2% Black, 44% Latino, 19% Other	54–55	Yes	Live video: telepsychiatry, telebehavioral health

State No.	Region ^d	Location ^e	Unique Patients Served/ Year ^f	Payer Mix ^f	Race/ Ethnicity ^f	No. of Sites	Telehealth Use ^a	Types of Telehealth Offered
4	West	Rural	15,799	37% Medicaid, 21% Medicare, 9% uninsured, 33% other	37% White, 1% Black, 61% Latino, 2% Other	22	Yes	Live video: telepsychiatry
4	West	Urban	4,420	43% Medicaid, 6% Medicare, 51% uninsured, 0% other	30% White, 12% Black, 48% Latino, 17% Other	1	No	—
5	Northeast	Rural	37,227	30% Medicaid, 23% Medicare, 3% uninsured, 44% other	94% White, 1% Black, 4% Latino, 1% Other	8 ^b	Yes	Live video: telenutrition counseling for patients with diabetes, teleexercise, telebehavioral health, telehealth anticoagulation clinic; teleamputation clinic
5	Northeast	Rural	3,413	45% Medicaid, 12% self-pay	97% White, 1% Black, 1% Latino, 0% Other	4	No	—
5	Northeast	Urban	20,325	55% Medicaid, 8% Medicare, 28% uninsured, 8% other	11% White, 77% Black, 27% Latino, 7% Other	6	Yes	Live video: teletriage for homeless shelter residents with urgent health care needs
6	South	Rural	6,672	16% Medicaid, 25% Medicare, 21% uninsured, 38% other	96% White, 2% Black, 1% Latino, 1% Other	1	Yes	Live video: telepsychiatry, teleendocrinology, telehealth Hepatitis C virus, telepain management, school-based telehealth for sick visits and chronic illness management
6	South	Rural	19,698	19% Medicaid, 34% Medicare, 21% uninsured, 26% other	99% White, 1% Black, 0% Latino, 0% Other	11	Yes	Live video: telepsychiatry, telebehavioral health
6	South	Urban	8,710	30% Medicaid, 12% Medicare, 40% uninsured, 18% other	45% White, 36% Black, 15% Latino, 8% Other	3	No	—

State No.	Region ^d	Location ^e	Unique Patients Served/ Year ^f	Payer Mix ^f	Race/ Ethnicity ^f	No. of Sites	Telehealth Use ^a	Types of Telehealth Offered
7	West	Rural	3,359	28% Medicaid, 30% Medicare, 7% uninsured, 36% other	97% White, 0% Black, 2% Latino, 1% Other	4	Yes	Live video: telepsychiatry, telestroke, telerheumatology, teleoncology
7	West	Urban	44,074	60% Medicaid, 6% Medicare, 26% uninsured, 8% other	34% White, 2% Black, 61% Latino, 2% Other	14 ^b	No	—

^a Unlike the UDS data reported in Table 3.1, the health center use of telehealth variable in this table reflects information collected during semistructured interviews.

^b “Other” is inclusive of Asian, American Indian/Alaska Native, Native Hawaiian/Other Pacific Islander, and more than one race.

^c Information available on clinic website, which is excluded from the reference list to protect FQHC anonymity.

^d U.S. Census Bureau, 2017.

^e HRSA, 2016d.

^f HRSA, 2016b.

^g Telepsychiatry is defined as any telehealth visit between a patient and psychiatrist, including for evaluation, diagnosis, and medication management.

^h Telebehavioral health is defined as any telehealth services delivered by behavioral health professionals including psychiatrists, social workers, psychologists, etc.

Types of Telehealth Offered and Models of Delivery

Live Video, Store-and-Forward, and Remote Patient Monitoring

Among the three forms of telehealth considered in scope for this project, synchronous, live video telehealth was the most prevalent. Both state Medicaid officials and FQHC representatives further mentioned that telebehavioral health services (e.g., telepsychiatry, teletherapy, tele–substance abuse disorder treatment) eclipsed other types of live video telehealth. As described by a state Medicaid official, “I do know that probably about 90 percent of our telemedicine is for our behavioral health because we have a huge gap there.” While telebehavioral health was used by a large majority of FQHCs in our sample, they also offered live video telehealth for a variety of other specialties. Multiple FQHCs provided and/or received telehealth services for nutrition counseling, endocrinology, pain management, Hepatitis C virus (HCV) treatment, and primary care (for school-based clinics). It should be noted that the vast majority of live video visits discussed by FQHC representatives occurred between one or more specialists and one patient. Group visits, by contrast, were mentioned by only one FQHC representative.

Although asynchronous, store-and-forward telehealth was less common than live video telehealth, a handful of FQHC representatives reported offering teledermatology and/or diabetic retinopathy screening. One state official also commented about the experiences of FQHCs with teleradiology in her state. Finally, while several Medicaid officials reported use of RPM in their

states, only one FQHC in our sample discussed implementation of RPM. According to a state official, “We are seeing a lot more telehealth monitoring, especially with chronic congestive heart failure, so they don’t have to come in and or have a nurse visit them every day. . . . they also do this for Type II diabetes. I’d say at least four of our Medicaid managed care programs [do RPM].” A representative from a rural FQHC in the South described that RPM program as a referral program with an academic medical center:

We would refer our diabetic and hypertensive patients to them . . . ; candidates that are eligible would be enrolled and [the academic medical center staff] would be able to monitor them from home. Then they would coordinate visits where patients may need to come into the clinic or they may be in a crisis, and then they could also feed all this information back to us.

Models of Delivery for Live Video and Store-and-Forward

Telehealth policies typically differentiate between originating and distant sites. Originating sites are defined as the location of the patient at the time the telehealth visit occurs. In contrast, the distant site refers to the (remote) location of the provider issuing the telehealth service. The FQHCs that offered telehealth services in our sample participated in a number of models to expand access to specialty care, including (1) contracting with an external organization/provider for telehealth services (FQHC as originating site only); (2) using telehealth within the organization (FQHC as originating and distant site); and (3) a combination model (use of both models).

A minority of FQHCs that offered telehealth in our sample served as originating sites only. These FQHCs contracted with a third party (typically an academic medical center, telehealth vendor, or independent specialist). In this model, the FQHC patient presents to the health center where he or she typically receives primary care and is connected to a remotely located specialist via telehealth. In some cases, the third-party specialist that provides telehealth services will also see FQHC patients in person (e.g., once per month) and may work from home or from a health care setting, either within the same state or out of state.

A slightly larger proportion of FQHCs in our sample used telehealth within their own organizations only. In this model, multisite FQHCs that employ specialists at certain locations (e.g., behavioral health staff, nutritionists) connect, via telehealth, to underserved locations within the same health center network. In this setup, one clinic within the FQHC serves as the originating site, and another clinic in the same FQHC serves as the distant site. A representative from a rural FQHC in the Midwest explained how this model is used for telepsychiatry:

On a Tuesday, I might have appointments [where patients are located in a small clinic one hour away] where I’ll [video] call up there and see them and interact with the nurse. Then I may have an appointment with a patient I’ve seen for two years and they want to stick with me as a provider, but they’ve moved to [a town that is several hours away]. I have a few of those, I’ll call down, they can come to the [distant] clinic and I can see them on telepsych to maintain that continuity of care. So that would be an example of

why we would do it down at that site. . . . Right now, we're using it just for access between the sites, so we have not expanded [to the point] to bring in an [outside] provider off site.

The most common model in our sample was a combination model in which the FQHC both contracts with external organizations for certain telehealth services and serves its own network for others. A representative from a rural FQHC in the West explained that the health center contracted with telehealth vendors and academic medical centers for telepsychiatry (i.e., visits with psychiatrists for medication management) but used its own behavioral health staff to provide telepsychotherapy to patients. Furthermore, a representative from a rural FQHC in the South explained that his health center contracted with academic medical centers for diabetic retinopathy screening and pain management services but used its own behavioral health staff (psychologists, social workers, and psychiatric nurse practitioners) to support locations that do not have these services on site. Finally, a representative from a different rural FQHC in the South noted that as the originating site, it contracts with an academic medical center for certain telehealth services (e.g., tele-endocrinology, telepsychiatry). However, the same FQHC was also the distant site for school-based clinics, with health center staff providing primary care services to schools via telehealth. It should be noted that two rural FQHCs in our sample had very complex combination models that involved out-of-state telehealth vendors and individually contracted providers and FQHC staff who worked from home on a part-time or full-time basis.

Telementoring via Project ECHO

Project ECHO uses videoconferencing to link specialist and generalist providers. The technology-enabled model, which started in 2003 in New Mexico, has since expanded across the country. ECHO programs aim to improve the ability and self-efficacy of generalists to handle complex patients and increase patient access to specialty care. ECHO facilitates mentorship and includes live, interactive teaching by the participating specialists based at a “hub” along with case presentations by the learners, who connect from their local clinics or hospitals. In contrast to an e-consult, a specialist who participates in ECHO does not directly treat a specific patient (and therefore cannot bill consulting services as medical care). The first topic addressed by Project ECHO was HCV, a liver infection that can be cured when treated appropriately but often goes untreated due to lack of knowledge of infection or limited access to care. As of 2018, Project ECHO reports more than 220 hubs covering more than 100 conditions in 31 countries (Howe, Hamblin, and Moran, 2017). The most frequently covered conditions include behavioral health, substance use disorders, chronic pain management, autism spectrum disorders, cancer care, palliative care, HIV/AIDS, and diabetes.

Many of the FQHC representatives we engaged were familiar with ECHO and with other provider-to-provider telehealth services. Participants frequently discussed e-consults along with ECHO, with differing levels of enthusiasm for these programs. As explained by a representative from a rural FQHC in the West that offered telehealth services, “Project ECHO by design does not provide direct services. They provide consultation services to our on-site providers or

sometimes to our telepsychiatry providers. But they don't provide direct services to our patients."

A handful of FQHC representatives discussed participating in ECHO programs around telepsychiatry, medication assisted therapy for substance abuse disorder, pain management, and/or HCV. At the state level, two state Medicaid officials discussed the specific ECHO programs operating in their states. One state official, furthermore, reported that the state's Medicaid program provided funding to support Project ECHO. Specifically, this state has a Medicaid waiver for a Section 1115 Research & Demonstration Project, through which it requires its four managed care organizations (MCOs) to contract with a large university in the state to provide Project ECHO support. The support is capitated on a per-member, per-month basis, shared across all participating MCOs and adjusted based on monthly enrollment (Howe, Hamblin, and Moran, 2017).

Although the rate of participation in ECHO was similar for adopters and nonadopters of telehealth in our sample, adopters tended to view ECHO as a tool to train providers and supplement telehealth. According to a representative of a rural FQHC in the West that offered telehealth, "The real goal is patient access and service. [One-way telehealth can help with that] is to increase local provider skills to allow them to care for patients, and so one model for that is the ECHO model." On the other hand, nonadopters viewed provider-to-patient telehealth as more complex than provider education via ECHO for various reasons, including challenges with reimbursement. As explained by a representative of an urban FQHC in the Midwest that had not adopted telehealth, "Telehealth . . . requires payment from providers for providing those services." This same representative commented that his FQHC does participate in ECHO, and he has observed its benefits. He spoke about ECHO's "force multiplier effect":

It's a bit of a different philosophy. When you do ECHO, you're treating a cadre of patients. There's a dangerous triad of HIV, Hepatitis C, and mental health issues—often in the same person. We need to be experts in taking care of these health problems without sending people to multiple health centers. Obviously, substance abuse and mental health is going to challenge a Hepatitis C or HIV treatment course. Having those levels of expertise available [within the FQHC] may have some advantages over sending patients around to multiple health centers.

Several FQHC representatives noted barriers to the implementation of ECHO programs. One concern was that ECHO may not actually increase access to all types of care. A representative from an urban FQHC from the West that did not offer telehealth services noted that while ECHO could increase access to specialty care, it may also decrease access to primary care in cases where an FQHC is operating at maximum capacity. He explained, "Every time a specialist visit stays in primary care . . . it means that some other primary care visit didn't get a chance to happen; . . . it's a zero-sum game."

A second concern about ECHO was its costs in terms of time and resources. A representative from an urban FQHC in the Midwest that participated in ECHO but did not offer telehealth pointed out that competing demands for staff time was a key barrier to ECHO implementation.

The representative said that his health center had to identify staff and time for ECHO until external funding was awarded, and this extra funding “made all the difference in the world.” The FQHC representative also noted the amount of “legwork” necessary to implement ECHO. He explained that the primary care doctor must “make sure that [necessary details about] the case gets to hub in a timely fashion” to ensure that all participants are prepared for the next interactive session.

E-Consult

Physicians regularly consult with their colleagues in formal as well as informal ways. When a generalist formally reaches out to a specialist for assistance with a case, the consulting specialist can provide advice and help patients avoid the cost and time of a referral to specialty care. E-consults use technology to achieve the same ends and have been described as “asynchronous, consultative, provider-to-provider communications within a shared electronic health record (EHR) or web-based platform” (Vimalananda et al., 2015). The goal of e-consults is to improve access to specialty expertise for patients and providers without the need for a face-to-face visit (Vimalananda et al., 2015). To date, e-consult programs have been implemented both in the United States and abroad, including in academic medical centers, private health care settings, and within the Veterans Health Administration (National Association of Community Health Centers, 2018a). Reimbursement for e-consults vary by state. In one of the state Medicaid programs in our sample, FQHCs contracted with specialists providing e-consults, and received a supplemental payment from Medicaid. The payment model, however, evolved following the first year of implementation, and the Medicaid program added e-consult codes to the fee schedule so that that specialists providing e-consults could bill Medicaid directly.

Only a handful of FQHC representatives in our sample mentioned that they were participating in e-consults. Furthermore, several additional FQHC representatives (all nonadopters of telehealth) expressed interest in implementing e-consults in the future. Unlike with Project ECHO which focuses on particular conditions, e-consults covered a wide range of topic areas. One state Medicaid representative explained, “With our e-consult policy we’ve not really limited it much by specialty. We’ve had a few basic limitations. I think we’ve not allowed for neurosurgery and things like that where essentially hands-on is necessary, but it’s been pretty broad otherwise.” Nonetheless, he mentioned that e-consults have had a larger role in improving care in his state for certain specialties, including dermatology, cardiology, orthopedics, neurology, and nephrology.

Stakeholders identified several benefits of e-consult programs. A representative of an urban FQHC in the West that did not offer telehealth but had a pilot e-consult program in place mentioned that potential advantages included improved convenience for providers and patients and potential cost savings because of avoided specialty visits. As she explained, “They [remote specialists] are answering them [questions of primary care providers] in less than four hours. So rather than waiting weeks for a face-to-face appointment, or calling up a harassed university faculty, we get a good considered answer that can then further advance the patient’s care and

give them some next steps to do.” According to a representative of an urban FQHC in the Northeast, benefits include speed of response, addressing no-show rates, lower costs, and the potential to improve efficiency. He explained, “So that when I have a real, real serious person who needs to see the cardiologist face to face, there’s not 50,000 unnecessary [in-person] consults that are clogging the system.”

One stakeholder discussed facilitators of e-consult programs. A state Medicaid official noted that a shared electronic record system “is helpful but not mandatory.” She pointed out that “having the same [EHR system] can pose its own challenges because many primary care providers are inundated with information out of their EHR.”

Limited reimbursement was the only barrier to broader use of e-consults that multiple respondents identified. A representative from a rural FQHC in the Northeast mentioned that his health center waited for reimbursement from Medicaid to be in place before it launched its program. In addition, a state Medicaid official explained, “I think the barrier to the broader use of e-consults is the [insufficient] payment to the consultant, and we’re working very hard to raise that.”

Telephone

State Medicaid programs have different approaches to telephone visits. In some cases, telephone visits are formally excluded from the state’s definition of telehealth. Even when the definition is broad enough to include telephone visits, the Medicaid program may or may not reimburse for telephone visits, and restrictions may be in place. Only one Medicaid program in our sample explicitly provided reimbursement for telephone visits; however, the state official explained that the intent of the policy was to facilitate teleconsultation. He explained, “If the primary care provider was working with a case in a part of the state that they didn’t have immediate access to a specialist that they needed, that [telephone] would be a way of connecting with the specialist.”

Only one urban FQHC in the West reported formally incorporating telephone visits into the regular workflow. This FQHC used telephone visits in cases where “the exam is not contributing” to the information shared (e.g., when discussing insulin adjustment). The representative argued that, while a video visit may be necessary for dermatology, it is not always needed for diabetes or psychiatry. According to the FQHC representative, a capitated payment structure and the fact that clinic staff could schedule visits in ten-minute increments (versus 20 minutes for in-person visits) made telephone visits viable. She explained, “Once we start getting a capitated payment, we said, OK, we can yield that time.”

Several respondents discussed the desire for more flexibility regarding the use of telephone visits. A Medicaid official in a state program that requires video visits for behavioral health commented, “I think that there are providers who want to be able to bill for telephone-only in behavioral health.” A representative of a rural FQHC in the West that offered telehealth services explained that video visits were not an option for patients in very remote areas: “That’s why I’m talking about telephone visits because Skype or FaceTime visits may or may not work in

[frontier areas of the state].” A representative of an urban FQHC in the West that was not offering telehealth services also noted that patients were very appreciative of telephone visits. She explained, “I can’t give you data, but I can tell you that there is a lot of gratitude expressed about being able to do the telephone visits because of transportation.”

Overview of Policies in Sample States

Policy Summary for Sample States

The telehealth policies of the seven state Medicaid programs in our sample varied across numerous dimensions. We highlight the most relevant sources of variation next. In 2017, four of our sample states earned an ATA composite grade of B, while three earned a grade of A. While all state programs reimbursed for live video telehealth according to their written policies, one program reported that it did not, in fact, reimburse FQHCs for this modality. This is likely the case because although several states in the United States, including one in our sample, have enacted laws requiring telemedicine parity in their Medicaid plans, regulations and Medicaid provider manuals do not reflect all of these policy changes (ATA, 2017).

Four of the seven state Medicaid programs reimburse for store-and-forward telehealth, and two reimburse for RPM. Four programs had patient informed consent requirements, and three required telepresenters to be present with patients at originating sites. Telepresenter policies dictate what type of clinic staff person—if any—is required to be present with the patient at the time of the telehealth visit, and whether the telepresenter must be in the room with the patient versus on the premises. In addition, two programs restrict the types of specialists or services that can be provided by telehealth. Finally, five state programs provided a transmission and/or facility fee to eligible originating sites. Table 3.3 summarizes the telehealth policies of the participating Medicaid programs.

Table 3.3. Policy Summary for Participating Medicaid Programs

State No.	ATA Composite Grade ^a	Reimburse for Live Video ^b	Reimburse for Store and Forward ^b	Reimburse for RPM ^b	Some Form of Consent Required ^b	Transmission or Facility Fee for Originating Site	Restrictions on Types of Providers or Services ^a	Telepresenter Required ^a
1	B	Yes	Yes	No	Yes	No ^c	No	No
2	B	Yes	No	No	No	No ^b	No	Yes
3	A	Yes	Yes	Yes	Yes	Yes ^b	No	Yes ^b
4	A	Yes	Yes	No	No	Yes ^b	No	No
5	B	Yes	No	No	Yes	Yes ^d	Yes	Yes
6	A	Yes	Yes	Yes	Yes	Yes ^b	Yes	No
7	B	Yes	No	No	No	Yes ^e	No	No

^a ATA, 2017.

^b Center for Connected Health Policy, 2017.

^c State Medicaid official, email communication with the authors, August 3, 2018.

^d State Medicaid official, email communication with the authors, August 10, 2018.

^e State Medicaid official, email communication with the authors, August 22, 2018.

According to the representatives of state Medicaid programs in our sample, FFS policies establish the minimum or base service. MCOs, on the other hand, must adhere to these minimums but have the option to be more generous. Furthermore, given that the proportion of Medicaid patients in managed care in our study states was very large, the policies of MCOs largely shaped FQHC experiences. As explained by one state Medicaid official:

The managed care plans are required to adhere to our state plan and our administrative code meaning that they cover all of the services that the Division of Medicaid covers. But they are also allowed to provide additional services that are not covered by our fee-for-service Medicaid. They are also required to pay no less than what the division fee is for each service. But they can pay more.

Another state official commented, “The managed care organizations [MCOs] can apply or utilize telemedicine in a host of ways; we have encouraged that. We’ve said, please don’t limit yourself to what they do in FFS because our FFS population is really small, so we would like to see them be innovative in their approach to utilizing telemedicine.” While the majority of state Medicaid programs welcomed innovation within managed care, one program actually incentivized its MCOs to increase telehealth volume. Each MCO has a delivery system improvement target written into its contract with the state. Since 2013, the MCOs have been encouraged to grow their telehealth utilization among members in rural and frontier communities by 15 percent per year. If they meet their targets, they receive dedicated funding. A representative of a rural FQHC in the state specifically commented on the important roles of the Medicaid program and MCOs in promoting telehealth,

The MCOs are working with us specifically this year because it’s a renewal year and they want to enhance it [telehealth]. So, the state wants to enhance it, and that’s pushing the MCOs to try to work with us on removing barriers. The state is working on how to make it more efficient.

Goals of Telehealth

State officials described several goals that informed their telehealth policies. A common theme across state programs was the goal of expanding access to care. Several state officials pointed to the need to address provider shortages, especially for specialty care, while a handful of others mentioned the need to improve the timeliness of care. One state official commented that a leading goal was to prevent “decompensation in physical health as a result of long travel time” required for rural residents to see a specialist in person at the academic medical center. Furthermore, another state official emphasized the role that telehealth can play in reaching the most vulnerable patients and reducing disparities in access and quality.

[The goal is] access, and going that last mile with the hardest to reach, vulnerable populations. Where there are disparities or inequities—and we know we are going to have to be creative to actually move the needle on those . . . Telehealth is a tool that we have to embrace and use.

FQHC representatives similarly discussed the broad goal of expanding access to care through telehealth; however, they also provided many examples of implementing programs in response to a specific need. In some cases, FQHCs started programs to reduce wait times and, as a result, improve patient outcomes, for a particular specialty. As a representative from a rural FQHC in the Northeast explained, “[With our telehealth program,] we are going to be able to get patients diagnosed quicker, and there is going to be less of that gap in care. If a patient is waiting three, four, or five months for a visit, that is the time frame where things could get progressively worse.”

In other cases, programs were launched because telehealth was the “only option,” largely because of widespread workforce shortages or inability to recruit specialists to serve certain clinic sites. A representative of a rural FQHC in the West that offered telehealth services commented,

Recruitment in our state is a challenge, both for therapists and for nurse practitioner psychiatry and psychiatrists. So, finding people that will go into some of these very small communities, very remote communities, is an ongoing challenge. That was really the impetus to start the program . . . if we didn’t . . . some of these sites we would never be able to recruit a provider to provide those services.

A representative of a rural FQHC in the Midwest implemented telehealth because it was the “only way we could bring psychiatric services to our patients in the rural part of the state.” However, this participant also pointed out that although telehealth has expanded access, the health center’s preferred model of care is to hire “actual psychiatric providers to have them be physically present full time.” For this FQHC, telehealth is an important, yet second-best, option for the delivery of mental health services.

Representatives from a couple of FQHCs that did not offer telehealth services claimed that there was not an urgent need for such services in their communities (e.g., due to proximity to an academic medical center). As explained by a Medicaid official from a state with a relatively small rural population, “We have not had a pressing need for it [telehealth] and until recently, we’ve really not had anybody who wanted to do it. We had, early on, some out-of-state entities wanting to bring their program here. But we’ve not had anybody in state say that they needed it for their patients.” A representative from an urban FQHC in that same state explained,

At least in our urban setting here, and in the shadows of [academic medical center], [we need telehealth] much less because we really do have access for our insured patients. Our uninsured patients, which is nearly a quarter of our population, is a different story, but I don’t think telehealth is going to help that, because my problem is getting the people to render the services at a cost that we can afford to cover for people who have no insurance coverage.

Supportive Policies

State Medicaid programs that received an ATA composite grade of A, as well as the FQHCs in those states, more frequently highlighted particular policies that they felt were particularly effective in supporting telehealth and should be replicated elsewhere. One state Medicaid official commented that originating site providers can bill two units (each corresponding to 30 minutes) for time spent by the telepresenter. According to this official, “[The FQHCs are] happy with the coverage and additional reimbursement for the originating site.”

Another state official commented that her program has encouraged innovation in addiction medicine. She pointed out that it received a Medicaid waiver for a Section 1115 Research & Demonstration Project. Through this project, outpatient counseling services for patients with a substance use disorder diagnosis can be provided by a certified addiction treatment professional in person or by telehealth. According to the state official, “This allows FQHC and public mental health providers to use telehealth for counseling . . . we have received positive feedback for allowing this.”

An official representing a different state also praised her state’s policies regarding prescribing psychologists. “We are among only a few states that allow prescribing psychologists . . . Here, they can also be reimbursed as distant site providers . . . that is very helpful when we can get them given the shortage of mental health professionals.”

A representative of a rural FQHC in the West that offered telehealth praised his state’s Medicaid policies on telehealth in general, clarifying that only Medicare policies were problematic. “So it [telehealth] is actually quite sustainable under state policy . . . at the state level, I think the policy is facilitated quite well. If Medicaid did not provide for that, I don’t think [telehealth] would be a viable option for us. . . . It is the federal policy under Medicare which is the main obstacle to it.”

Limiting Policies

Multiple FQHC stakeholders and state Medicaid programs discussed what they perceived to be the limitations of the current telehealth policies in their states. The most commonly cited criticism was a general lack of clarity on which services were allowed by the Medicaid program. Questions can arise, for example, when the written policy is difficult to interpret or is silent on a particular issue. One state official explained,

Probably the biggest feature of our policy right now is that we consider it inadequate. That there are many questions that are coming up that are not answered in our written policy. So, this is on our list of things that need to be revised sooner, not later . . . so one of the things that is just not addressed very much at all is the nexus between our telehealth policy and our out-of-state policy. The out-of-state rules really don’t address the situation at all where a telehealth provider is out of state but the member is in [our state]. They completely assume that the member is where the provider is. So that is one that comes up all the time and is not adequately covered.

A state official from a different state commented that providers were confused by telepresenter requirements. The Medicaid program in this particular state had intended lower-level staff to be eligible to serve as telepresenters as long as a physician was also present in the office suite at the time. However, providers in the state were confused about whether or not physicians needed to actively participate in the visit. Finally, one state official pointed out that providers needed more clarity on what the Drug Enforcement Agency allowed with respect to the prescribing of controlled substances via telehealth to support the growth of telepsychiatry.

A representative from a rural FQHC in the Northeast that did not offer telehealth services requested more guidance around state policies:

The regulations would need to be very specifically broken down. The way these manuals are written is already somewhat confusing and if there's just a line or two about telehealth, that just doesn't cut it. Everything needs to be really well-defined and simple language regarding the difference between providing telehealth and providing [in-person] patient care.

Another commonly mentioned criticism was that the federal Medicare program, as well as some state Medicaid programs in our sample, did not authorize FQHCs to serve as distant sites. This restriction did not prevent several FQHCs from providing telehealth within their own network of clinics; however, it prevented some FQHCs from starting school-based telehealth programs (where FQHC staff would provide primary care or behavioral health services via telehealth to students in a school setting) and threatened the sustainability of existing (grant-funded) school-based telehealth programs. In addition, several FQHCs in our sample mentioned that this restriction prevented them from using their own specialists (e.g., a psychiatrist employed by the FQHC) to serve various originating sites in the community. A representative from a rural FQHC in the South that offered telehealth commented, "We got a HRSA Grant to support the school telemedicine program. Right now, without that grant there's no way that that program would be financially sustainable with Medicaid not moving forward as they had promised with the reimbursement for FQHC as a distant site." A representative from another rural FQHC with a telehealth program in the same state described a lengthy process in which it tried to get the state Medicaid program to clarify in writing that FQHCs could serve as distant sites; however, it had yet to receive this documentation.

Insufficient reimbursement for FQHCs as originating sites was also a common concern among FQHC representatives in our sample, and the nature of the criticism varied depending on the specifics of the Medicaid policy. Reimbursement concerns focused on lack of Medicaid reimbursement for FQHCs as originating or distant sites in one state, lack of originating site fees in Medicaid in certain states, and inadequate originating site fees in Medicaid in certain states.

In our sample, the state that did not reimburse FQHCs for any model of telehealth cited lack of reimbursement as the leading barrier to adoption. A representative from a rural FQHC in this state mentioned that lack of Medicaid reimbursement was the main factor driving the decision not to offer telehealth. As she explained, "Other than just the policy [no reimbursement for us as an originating site], we would be ready to go." In addition, a representative from a rural FQHC in

the Midwest criticized the lack of an originating site fee in her state, explaining that it influenced decisions to offer telehealth. Although this particular FQHC had a telehealth program, the representative explained, “I know that the health centers feel like they can’t really do it [telehealth] if we’re not going to be entitled to some kind of origination fee, because we still have to room the patient, take their vitals, get all that connectivity set up so telehealth can take place.” Finally, a representative from a rural FQHC in the South that could receive an originating site fee for visits in its program mentioned that reimbursement was insufficient given all of the up-front costs. As he explained, “The \$25 originating site fee definitely does not cover the time to coordinate the appointments, call the patient, put in referrals, everything that it takes to get that set up. Then the equipment, and the room, and the staff that’s used to facilitate the encounter, as well. We do get grant funding now for that.”

Other limitations of state Medicaid policies that participants mentioned with less frequency included (1) telepresenter requirements stipulating that a midlevel provider be on site; (2) not allowing the home to be an originating site in some Medicaid programs; and (3) not allowing phone visits in most Medicaid programs. A representative of a rural FQHC in the South explained that requiring a midlevel provider (e.g., physician assistant, nurse practitioner) as a telepresenter was a barrier to school-based telehealth programs given that in this model, originating sites were staffed by school nurses. Not allowing the home or supporting phone visits was seen as limiting the flexibility of providers to tailor services to their specific patient populations.

Planned Changes to Policy

Representatives from four of the seven Medicaid programs in our sample mentioned that they were actively considering certain changes to telehealth policy in the coming months. One state program was considering expanding its list of eligible providers to allow physical therapists, speech therapists, and occupational therapists to provide telehealth services. Another state program was considering allowing additional behavioral health providers beyond psychiatrists and licensed psychologists to provide telebehavioral health services; however, the representative from this program also commented that “the update for telebehavioral health is still very much in the development stage.” This same state program was also discussing how telemedicine could be used as a tool to address the opioid epidemic.

A state official from a different program mentioned that his program was in the process of allowing certain providers more flexibility to use audio-only visits rather than requiring video visits. “[For some medical or surgical services, we will] leave it up to the provider’s discretion as long as the quality of care would be equivalent as if they were in the room together.” Finally, a different state Medicaid official explained that her program was focusing on data capture and fine-tuning reporting requirements to reliably identify telehealth visits among Medicaid patients.

Potential Overuse and Misuse

Concerns about overuse and duplication of services are the leading reason why policymakers limit coverage of certain telehealth services in federal and state programs (Medicare Payment Advisory Commission, 2018). For example, Medicare restricts reimbursement to telehealth services delivered in health care settings in rural areas to help ensure judicious use.

Medicaid officials that we interviewed also expressed some concern about the potential for overuse or abuse of telehealth. None of the Medicaid programs in the study sample had geographic restrictions similar to those in Medicare. However, several state officials mentioned that they specifically designed policies to limit overuse and duplicate payments or considered how potential policy changes would affect use. One state official pointed out that her program does not incentivize payers to offer direct-to-consumer telehealth because regulators are “trying to get telehealth used properly so it gets to the people it needs to get to.” An official in another state explained, “Managed care plans here have more flexibility [than FFS] in offering telehealth because they are a full-risk capitated model.” Finally, an official representing a third state explained that if his program decides to allow providers more flexibility to conduct telephone visits, staff will do additional checks and audits to ensure appropriate use.

Officials representing several states in our sample argued that the policy goal should simply be to increase utilization at this stage of implementation. One official explained, “We’d rather see overtreatment than undertreatment.” Only one state official mentioned that avoiding abuse and misuse was a guiding principal in their policy approach:

So right now, we’re kind of trying to work through . . . how do we frame up the legislation so that it’s restrictive enough not to allow abuse and misuse but yet broad enough to allow for future developments . . . other states have said, anything that is provided face to face can be provided via telehealth and we have not taken that approach because we want to be sure that these services are areas where it really is about access.

Regardless of the impact of specific policies on misuse, state officials were generally confident that their program integrity divisions would quickly identify and address problems. One explained, “We have a pretty strong program integrity unit, and if they see spikes in certain areas—or in our quality that we oversee in our managed care organizations—if there are spikes in something, and not a decrease in something else, I think we would pick that up.”

Experiences of Implementing Telehealth

Barriers to Uptake, Maintenance, and Expansion of Telehealth

As previously stated, FQHCs are experimenting with telehealth for a range of conditions, working with different types of telehealth providers (vendors, academic medical centers, local specialists) and confronting different telehealth policies depending on their location and payer mix. Despite this variation, FQHC stakeholders identified certain common barriers to the uptake, maintenance, and expansion of telehealth programs. The majority explicitly stated that policy

issues, such as insufficient reimbursement, were the leading barriers. As a representative from a rural FQHC in the Northeast that did not offer telehealth stated,

There's the logistics of all it. You'd have to find a willing participating specialist, and then you'd have to put the memoranda of understanding in place and all of that kind of stuff . . . but I think, for the most part, there are enough people here and providers in this state that are willing to do this, that those things will get worked out. Other than just the policy [lack of reimbursement], we would be ready to go.

In other words, FQHC stakeholders generally believed they could overcome other barriers if reimbursement and the risk of losing revenue in offering telehealth services were improved. In addition, FQHC stakeholders identified variation in reimbursement policies across payers (e.g., Medicare, different Medicaid MCOs in the state) as a key barrier to uptake and expansion.

Infrastructure issues. Multiple Medicaid officials and FQHC stakeholders alike commented that inadequate broadband and/or bandwidth was a barrier to telehealth. A representative from a rural FQHC in the West mentioned that she could only offer telehealth services to patients at the health center's main site (rather than satellite sites) due to inadequate broadband in frontier communities. This same representative explained that inadequate broadband precluded RPM from being used with patients outside of the three towns her health center served.

Issues with technology infrastructure were not isolated to rural settings. Representatives from urban FQHCs, such as one running a telehealth program for an urban homeless population, also spoke of the need to improve connectivity to enable telehealth.

Technology costs. Several FQHC representatives described the high cost of purchasing and maintaining equipment as challenges. One representative, from a rural FQHC in the Northeast that considered implementing telehealth but ultimately decided not to, explained, "It was going to be \$50,000 just to get the equipment and set up the portal. Neither organization [originating and distant site] could see covering those costs after we covered our providers' cost. It would just be a foolish proposition administratively, because neither one could afford to throw that kind of money into it." FQHC representatives spoke often of equipment failures that required staff time. According to a representative from an urban FQHC in the South that discontinued its telehealth program, having only one information technology specialist who "doesn't have a whole lot of time to work on troubleshooting" made it difficult to correct any issues that arose during telehealth visits.

Telehealth as a cost center. The majority of FQHCs in our sample across all telehealth models reported losing money on telehealth services. In fact, only one representative from a rural FQHC in the Midwest reported that his telebehavioral health program generated revenue. FQHCs offered telehealth because it aligned with their mission to serve vulnerable patients; however, among the telehealth adopters, inability to break even with telehealth services was a barrier to the sustainability and expansion of telehealth programs. FQHC representatives reported losing money due to insufficient reimbursement, the high cost of equipment and contracted specialists' time, and high no-show rates (i.e., appointments that patients miss without prior

notification). A representative from a rural FQHC in the Midwest that offered telehealth explained the impact of high no-show rates:

We have a contract with them [telehealth vendor], and normally, most of them charge about \$200 an hour for an adult psychiatrist. . . . But we have a contract with each organization that we contract with, spelling out how many hours a week we want them to provide services. And they block that time out for us. So if a patient no-shows, that time has been blocked out in their schedule. So we still have to pay even if a patient no-shows during that provider's schedule. Because we contract with them for X number of hours a week, and it's not their fault if the patient doesn't show up. We try very diligently to do all we can to reduce the number of no-shows that we have.

In addition, no matter how generous Medicaid's telehealth policies in a given state, FQHCs faced financial challenges in offering telehealth services to uninsured patients. It follows that the FQHCs with high proportions of uninsured or Medicare patients are less impacted by the telehealth policies of state Medicaid programs.

Billing issues. Correctly billing for telehealth services (e.g., using the right codes and modifiers) was its own challenge, above and beyond the existing challenges of insufficient and variable coverage across payer types. A representative from a rural FQHC in the Northeast that did not offer telehealth added, "Layering telehealth onto a billing system that's already really confusing could be a barrier for a lot of people." This same representative reported that it was difficult to get consistent guidelines on how to bill from the different MCOs he worked with: "[The challenge is] going back and getting some of the MCOs to understand it and just tell you exactly what to do. . . . [The] more people you speak to, the more answers you get. None of them are right, and none of them are on the same page, and yet they still all work for the same organization."

A representative of an urban FQHC in the South that discontinued its telepsychiatry program described how the billing "details were not worked out . . . as they should have been," adding:

I think that our center assumed that [the distant provider] was handling most of those sorts of things, and I think it just turned out not to be that way. They [distant providers] did provide us with a manual, and they put some standards and policies in here. . . . I just don't think the details were probably worked out.

Lack of buy-in among FQHC providers. Although FQHC representatives generally felt that primary care providers within their FQHCs were supportive of telehealth, reluctance to try something new or practice differently hindered the initial roll-out of programs. Several FQHC stakeholders pointed out that providers and health center leaders face numerous competing demands, and the feeling of "being spread too thin" can dampen enthusiasm for telehealth. A representative of a rural FQHC in the South that offered telehealth explained the challenge of provider buy-in and how his FQHC planned to address it:

Once [providers] are used to doing a thing a certain way, it's kind of hard to introduce or break certain habits, but the majority of our providers have been more open to it and see the benefits of [telehealth]. . . . That's one thing we're actually going to do, is to have one-on-ones with each individual provider to provide just a little bit more training on how to take advantage of this service and how it is beneficial for our patients.

A representative from a different rural FQHC in the South that offered telehealth services made a similar point about the importance of provider education: "It is so new that I don't think it is something that the providers think of as an option. They're more likely to refer patients to somewhere that's a physical place. . . . That's how they most often are used to doing it, so we need to do more education to promote telehealth."

Challenges specific to the patient population. FQHCs noted that telehealth services are not appropriate for all patients, including some elderly patients, those with certain severe mental illnesses (e.g., paranoid schizophrenia), and homeless populations. Older adults may be resistant to using technology or may have trouble communicating in a video visit. Patients with severe mental illness may have particular barriers related to their condition. As a representative from a rural FQHC in the Midwest that offered telehealth services explained,

If you have a [person with] paranoid schizophrenia that you're trying to deal with, they are really difficult to engage via a TV screen. A lot of people with paranoid schizophrenia have real issues with cameras and being looked at and they get very suspicious about what's going on. So with telepsychiatry sometimes that whole thing of having them sit down and talk to a screen where they think they're being recorded . . . it just exacerbates their whole paranoia.

In addition, one urban FQHC in the West that did not offer telehealth served a homeless population exclusively. A representative from this FQHC explained that the health center had an open access, walk in model, where homeless patients could seek and receive primary care at any time. She felt that this model was not compatible with telehealth, because visits with remotely located specialists would need to be scheduled days to weeks in advance, and success would depend on achieving low no-show rates. School-based telehealth initiatives that served school-aged children also faced hurdles. A representative from a rural FQHC in the South mentioned that the requirement that parents or guardians fill out consent forms was difficult to navigate because many forms were not completed in a timely manner.

Adjustments to workflow. FQHCs that implemented telehealth programs noted the need to adjust their existing workflows. Necessary changes were complicated by physical space constraints, staff shortages, competing demands, and insufficient training opportunities for staff. A representative from a rural FQHC in the Northeast that offered telehealth discussed the complexities in designing workflow around a new teledermatology service:

They have 15 minutes to a half hour [in a primary care visit]. They are evaluating a ton of different things, so we are trying to figure out how to best add this option. The physician would have to take the picture, send the picture, send the note down to this dermatologist,

go into a different platform to get the results, whereas [in other types of telehealth] everything else is integrated directly into our [electronic medical records]. So just trying to figure out how to add that workflow and make it work best for the provider. Or do we open up a nurse clinic and have the nurse be the one who takes the photo, and have the doctor be the one to evaluate that and send the note down to the dermatologist? . . . Or if we do it one day per week. We are trying to figure out how it would work best. We are a very busy practice at this time.

Limited supply of specialists to provide telehealth services to FQHC patients. Several FQHC stakeholders reported difficulties in recruiting specialists to provide telehealth services to their patients and/or reported that contracted specialists could not dedicate enough hours to meet their demand. A representative from a rural FQHC in the West that offered telehealth explained,

Telepsychiatry has not entirely resolved the problem of the recruitment of psychiatrists. Even though [the telehealth vendor] is responsible for recruiting, and then we do interview the people they propose to us for fit and for capabilities that we're looking for. But it takes time to even get people to their system, and they recruit nationally, of course, as do we. But it takes, oh, six to seven months to get anyone on site. Even with that system. So, the shortage of qualified professionals is acute.

This same representative added that telehealth can do only so much to address the national shortage of providers: "There continues to be a national shortage of providers, and telehealth is a mechanism to close that gap. But when you're having a shortage of telehealth providers, at some point the opportunity . . . it's breaking down."

A representative of a different rural FQHC in the West that offered telehealth spoke at length about the challenges she faced in trying to persuade specialists to provide telehealth services to her patients. In the process of contacting organizations with specialists, she found that many were reluctant to contract with her FQHC because of legal risks. She argued that that specialists in her state needed greater incentives to engage in telehealth:

It has not seemed to be a priority for the academic and the tertiary care centers because their patients are not having this gap in care. And so, I think it's hard for them to appreciate telehealth. And it [lack of access] certainly isn't their problem. And so, to put a lot of effort into solving it, or outreach, has really not been a priority for them. I think we need to incentivize hospitals and academic centers to do this so that they pressure their physicians to do this so that it feels like there is an urgent need because they don't see it.

Credentialing and licensing. The credentialing and licensing processes for providers of telehealth services were also noted as barriers. Credentialing and licensing were particularly challenging for FQHCs located near a state border that employed providers and served patients from multiple states. A representative from a rural FQHC in the Midwest that offered telehealth services, furthermore, criticized the separate credentialing protocols for each MCO he worked with, stating, "There has not been a lot of continuity and consistency with things like provider

credentialing and streamlining some of that administrative paperwork so that one universal form can serve all the different MCOs.”

Working with remote providers. FQHC stakeholders mentioned multiple challenges associated with working with remote providers, including complex logistics around scheduling telehealth visits, difficulties in information sharing, training challenges, staff turnover, and disagreements over the prescribing of controlled medications. Several FQHC representatives also mentioned that the remote providers employed by telehealth vendors can vary in quality, and it can be difficult to incorporate remote providers into the “team-based atmosphere” and offer the kind of “coordinated care that is more typical when there are onsite providers.”

Many FQHC representatives discussed challenges in scheduling telehealth visits with remote providers. For example, they reported complicated scheduling processes and situations in which remote providers were not available for scheduled appointments. A representative from a rural FQHC in the South that offered telehealth explained, “Basically there are four or five steps involved in getting the patient set up with [the academic medical center providing telehealth], and that's even before an appointment can be scheduled, and that appointment could be three or four months out.” A representative from an urban FQHC in the South that discontinued its telehealth program added,

Our biggest barrier, honestly, was related to the logistics of it. We would have patients on our schedule and the university wouldn't have a provider to see them, and when we would be trying to work that out, they would say oh, well, we didn't have anybody scheduled. But we had confirmations where they did indeed have, or were supposed to have, physicians scheduled.

In addition, FQHC stakeholders reported that training remote providers was time-consuming. As explained by a representative of a rural FQHC in the Midwest that offered telehealth services:

[It is] challenging when you contract with a provider and my staff has to credential these providers who might live six, seven states away. And just having them learn your EHR, if you're having issues with billing and coding and documentation, it's just much more difficult and challenging to get all that negotiated when you're dealing with people over the phone that you've never physically met in-person. And you're trying to train them on your EHR through a webinar. It's not impossible to do, but there's a lot of challenges with getting those people to really be part of your team when they live several states away.

This same representative explained that certain providers required extra training. He commented, “Some [remote providers] are really good. Some aren't so good, and if they are not a really good performer and then you try to do all this training and retraining with them when they're several states away . . . it gets to be very time-consuming, very frustrating.”

Several FQHC representatives also mentioned that remote providers may decide to leave abruptly after staff invest significant time to train them. A representative from an urban FQHC in the South that had planned to implement a telehealth program in the near future explained, “The

psychiatric nurse that we recruited out of state and brought into our system was not the right fit, and so she just left our employment. We just brought her, we just onboarded her the first quarter of this year, and we just lost her this week. And so we're back at square one with that."

Finally, several representatives of FQHCs with telepsychiatry programs mentioned that there were disagreements over the prescribing of controlled medications. In general, FQHC providers preferred that the remote providers prescribe medications such as stimulants, due to limited experience and lack of comfort with controlled medications. A representative from an urban FQHC in the South that discontinued its telehealth program explained, "And then the other issue we ran into was that the telehealth providers did not want to prescribe. They wanted to give the medication recommendations and then someone in this office prescribe, because those medicines are different type medicines. That was uncomfortable for the staff."

Facilitators and Solutions

FQHCs that had direct experience with telehealth identified not only barriers, but also facilitators and offered several potential, as well as tested, solutions to common challenges.

Grant funding. As anticipated, receiving dedicated funding, largely from state and federal grants, was identified as a key facilitator. Grant funding typically supported the purchase of equipment and other infrastructure changes required to begin offering telehealth. While grants were critical to initial implementation, reliable reimbursement by payers became increasingly important as programs matured.

Clinic champion. Several FQHC representatives referenced the importance of having a "champion," an influential staff person willing to promote telehealth within and outside the health center. A representative from a rural FQHC in the West that offered telehealth emphasized, "I can only imagine what communities across the country are doing to fill the void of patient need, specifically in behavioral health. If they don't have a [provider champion] like we do here, who's so passionate in looking for innovative ways to serve this population He's always coming up with ways to drive innovation, to get access and provide those services." Furthermore, an FQHC leader from a rural FQHC in the South credited the success of her telehealth program to the work of a single enthusiastic and energetic nurse practitioner. "She [the clinic champion] actually approached me because our program had kind of fallen off and we weren't really doing much with it, and she spoke with me about reviving that, and so she is the main reason that we got the program going again." According to a representative from a rural FQHC in the Midwest that offered telehealth, clinic champions may be particularly influential in smaller FQHCs that can implement telehealth without "a lot of bureaucratic red tape that goes on in larger organizations, where they have to go through 900 steps and ten committees to get something taken care of."

Collaboration with payers. Multiple FQHC stakeholders also found that working with payers helped facilitate the success of their telehealth initiatives. As described by a representative of a rural FQHC in the West that offered telehealth services,

In our state, Medicaid has been very open and encouraging towards behavioral health telehealth and psychiatry. We know we're in a frontier stage and so they have been very open and willing and supportive of making sure that the billing is appropriate and accurate and the support. . . . It's been a very cooperative process because seemingly we all are heading in the same direction.

Another representative of a rural FQHC from the same state credited the helpfulness of the MCOs he worked with to the fact that they were incentivized to promote telehealth: "So, it's really about getting the time to sit down with them and work through these opportunities."

Close collaboration with payers helped ensure reliable reimbursement, but in at least one case a payer was credited with actually launching a teledermatology program that a rural FQHC in the Northeast intended to implement across its sites. In addition, support from state-based clinical organizations, such as primary health care organizations, that advocate for telehealth and lobby for reimbursement of telehealth services was described as an important facilitator.

Implementation of promising practices in the delivery of telehealth services. A few FQHC representatives reported making changes to their workflow as well as modifications to practices around the delivery of telehealth services. These changes, largely to improve the patient and provider experience and reduce no-show rates, were implemented after FQHCs experimented with their own telehealth programs or learned of promising practices implemented in other settings.

A representative of a rural FQHC in the Midwest that offered telehealth noted that having a complete view of the patient's body was important for improving diagnostics in telepsychiatry. As such, telehealth staff angled the camera to support a full body view as opposed to a view of the patient's face. Staff at this same FQHC also gave patients the option of initiating telepsychiatry with an in-person encounter because they "had read some research that for relationship development, in the long term, that's better. And so, [the FQHC] does have some patients that will do the face-to-face and then will follow-up by the telepsychiatrist." In addition, a representative of a rural FQHC in the West that offered telehealth instructed distant providers about the importance of maintaining eye contact. FQHC staff began recommending consistent eye contact after they observed that telehealth providers who give eye contact and are "more sophisticated in using the technology to connect with their patients" had lower patient no-show rates.

Planned Changes to Telehealth Offerings

FQHC representatives described a range of planned changes to expand or modify the implementation of telehealth services. While some planned changes were in progress, others were more aspirational and reflected what FQHC representatives would do if given the opportunity. The following section presents both aspirational and planned changes to telehealth offerings within FQHCs and includes changes proposed by FQHCs that did, and those that did not, have active telehealth programs as of the summer of 2018.

Expanding existing offerings. Several of the FQHC stakeholders we engaged discussed expanding their existing telehealth programs by serving additional sites or taking active steps to increase volume. A representative from a rural FQHC in the South described an effort to increase telebehavioral health volume by training providers to consistently refer patients with depression and by querying the EHR to identify potential users. He explained, “We had one of our partners who hosts our EHR run a depression query for those adults and adolescents who have failed a depression screening . . . our outreach department can reach out to those patients and try to engage and bring them in to be consented, to sign those consent forms, and to start the [telehealth] program.”

Two additional FQHC representatives discussed introducing existing telehealth services (including teledermatology and teletriage for homeless populations) to new sites within and outside of their networks. In the case of teletriage, an urban FQHC in the Northeast was serving as the distant site, partnering with local homeless shelters to assess the urgency of residents’ complaints via videoconferencing. The goal of this program was to reduce unnecessary emergency department visits. A representative from this FQHC explained, “We really do have a goal of trying to expand [teletriage] throughout the shelter system to willing partners, and also possibly support homeless outreach teams that would be out on the street to engage someone that needs some assistance.”

Offering additional specialties. A handful of FQHC representatives stated that they were definitely going to offer additional specialties via telehealth in the next six to 18 months. Nonetheless, a larger number expressed interest in adding new telehealth offerings without concrete plans to do so. A representative from a rural FQHC in the West confirmed that his FQHC would add psychotherapy via telehealth to an existing telepsychiatry program that had focused on medication management. In addition, a representative from a rural FQHC in the Northeast that offered telehealth confirmed his FQHC would be introducing teledermatology. A representative from a rural FQHC in the Northeast that did not offer telehealth mentioned that his center had concrete plans to start offering teledentistry.

Other FQHC representatives mentioned that they were actively researching or had an interest in offering diabetic retinopathy screening, endocrinology, psychiatry for pediatric populations, behavioral health services, and various other medical specialties via telehealth. A representative from a rural FQHC in the South that offered telehealth spoke about leveraging an existing relationship with an academic medical center to add additional medical specialties beyond the existing telebehavioral health program.

Modifying workflow or other aspects of implementation. A handful of FQHC representatives discussed standardizing or adjusting practices around the delivery of telehealth services. For example, a representative from an urban FQHC in the South that recently began offering telebehavioral health visits within its own network explained, “At this point, what we want to do is simply get it [telehealth] in place consistently, that we know how the workflow occurs, and we get that institutionalized.” A representative from a rural FQHC in the South that offered telehealth discussed plans to establish standing orders for the scheduling of telehealth

appointments for nutrition counseling. Finally, a representative from a rural FQHC in the West that offered telehealth mentioned plans to develop and implement trainings for distant providers because “we’ve seen an array of skill sets from people providing services at a distance, and some are more effective than others. So we’re trying to do that to make them more effective.”

Discontinuing telehealth. It is important to note that the desire to expand telehealth services was not universal. For example, a rural FQHC in the Midwest planned to discontinue its telepsychiatry program after five years and hire on-site providers to address the need. A representative from this FQHC explained that in-person care was the “preferred mode of treatment” given the challenges in working with remote providers. In addition, several other FQHC stakeholders that did not currently have telehealth programs reported experimenting with telehealth in the past. An urban FQHC in the South used telehealth for a limited period of time to fill a critical gap in access to psychiatric care; however, after it hired a full-time prescribing provider, telehealth was no longer necessary. These experiences suggest that telehealth is sometimes implemented as a short-term strategy—for example, in response to a specific vacancy—rather than as a long-term solution to access or staffing challenges.

Interaction of State Policy and Use of Telehealth

Role of Policy in Decisionmaking

Qualitative data from discussions with stakeholders did not reveal a clear pattern with respect to the impact of Medicaid policy on the decision to implement and maintain telehealth programs. Representatives from both FQHCs in the state that does not reimburse FQHCs for telehealth services explained that lack of reimbursement was the key factor in their decisionmaking. A representative from a rural FQHC that did not offer telehealth in this state reported having all the equipment necessary to start services after receiving grant funding, and explained, “Other than just the policy, we’d be ready to go.”

While lack of reimbursement was a key barrier for certain FQHCs, including multiple FQHCs that were interested in serving as distant sites in states that reimbursed FQHCs only as originating sites, other FQHCs were willing to implement telehealth without reimbursement. For these programs, grant funding, a clinic champion, and/or the sense that offering telehealth services aligned with their mission motivated FQHC leaders to start offering telehealth. As described by a representative of a rural FQHC in the South that offered telehealth, “They [the state Medicaid program] have excluded FQHCs from being reimbursed as [distant site] providers of telehealth services. So that is the bigger issue for us from a reimbursement perspective . . . but it has not had an impact into our decision to actually provide the service to people.” A representative from a different rural FQHC in the South with an active telehealth program commented, “Well I would say it’s not a barrier to providing services, it’s a barrier to getting reimbursed for the services.” It should be noted that, for the FQHCs in this sample, no other policies beyond reimbursement (e.g., informed consent, telepresenter requirements) were identified as affecting their decision to implement and maintain telehealth programs.

4. Conclusions

In discussions with seven state Medicaid programs and 19 diverse FQHCs, we learned that telehealth is viewed as an important tool for increasing access to care among Medicaid patients. While telebehavioral health video visits are the most common type of telehealth, FQHCs are experimenting with telehealth for a range of conditions, working with different types of remote providers, and confronting different telehealth policies and implementation barriers, depending on their location and payer mix. Although the implementation of telehealth varies significantly across FQHCs, we identified several common themes. These themes informed the development of the following considerations for payers, policymakers, and FQHCs.

Authorizing FQHCs to serve as both originating and distant sites could spur the growth of telehealth in the safety net. FQHC stakeholders and state Medicaid programs were critical of policies that varied by state, including lack of clarity regarding which services were allowed by different payers, ambiguous telepresenter requirements, limitations in Medicare and in certain Medicaid programs on FQHCs serving as the distant sites, and insufficient reimbursement. While these criticisms have been documented in the literature (Center for Connected Health Policy, 2017; MACPAC, 2018; ATA, 2017; Medicare Payment Advisory Commission, 2018), we were surprised by how often limitations on FQHCs serving as distant sites seemed to prevent FQHCs from starting or expanding telehealth programs that could support FQHCs as distant sites or as originating sites. Our findings suggest authorizing reimbursing FQHCs as distant sites (as is done in a few states) so that they can serve patients in their own health center networks as well as various community sites could help spur an initial investment in telehealth equipment and training that can then be leveraged for other telehealth models and services.

FQHCs and their partners would benefit from additional clarification of individual state telehealth policies, especially as they relate to FQHCs, and education regarding these policies. Lack of clarity regarding allowable services across payers and how to bill for telehealth visits were common complaints. While one state official explained that his Medicaid program was actively working to delineate its policies, other payers can consider ways to reduce ambiguity and educate FQHCs and their partners regarding relevant telehealth policies. One reason why FQHC stakeholders may have difficulty interpreting Medicaid telehealth policy is that, as of 2018, only 16 states explicitly address FQHCs in their written telehealth policies (National Consortium of Telehealth Resource Centers, 2018). Given that FQHCs are unique safety-net entities with a specific payment methodology (Prospective Payment System in which FQHCs receive a single bundled rate for all qualifying patient visits), general telehealth policies may be difficult to interpret and apply. Furthermore, over the long term, broader alignment of telehealth payment policy across payers would serve to reduce confusion and operational costs for FQHCs.

Telehealth may be most effective if implemented as part of a suite of strategies to address workforce shortages in rural areas. Findings suggest that although telehealth is helpful in

addressing workforce shortages, it is only a partial solution. Although we identified multiple barriers to telehealth implementation that have been documented elsewhere, including lack of broadband, provider resistance, and challenges incorporating telehealth into workflow (Center for Connected Health Policy, 2017; MACPAC, 2018; ATA, 2017; Medicare Payment Advisory Commission, 2018), an insufficient supply of specialists to provide telehealth visits was a relatively novel finding. According to our participants, remotely located specialists could be difficult to recruit or unwilling to provide as many hours as requested. This barrier suggests that while telehealth can help address workforce shortages, it needs to be bolstered with other strategies. One FQHC stakeholder argued that specialists need to be made aware of the acute need for services in certain communities and should be incentivized to provide care to rural and frontier populations with high need and limited access.

FQHCs would benefit from case studies of successful telehealth programs. FQHC stakeholders generally believed they could overcome several barriers to telehealth implementation if reimbursement and the risk of losing revenue in offering telehealth services were improved. The majority of FQHCs in our sample reported losing money on telehealth, and while this did not always deter FQHC stakeholders from starting telehealth programs, it threatened the sustainability and expansion of programs. Increasing reimbursement is one obvious approach to this problem; however, it is not the only one. Payers and advocacy organizations can identify FQHCs with successful programs and disseminate promising practices (e.g., by developing toolkits, sharing case studies, hosting webinars to facilitate peer learning) on contracting, workflow, and staffing.

Telehealth services can be implemented as a short-term or long-term solution, but likely program duration is seldom addressed in telehealth policies and practices. Several FQHCs in our sample reported that they had discontinued telehealth programs or planned to do so. The choice to implement telehealth as a short-term strategy may be more common in communities that do not face chronic shortages of providers. Going forward, both policies and practices can account for variation in the likely duration of programs. Furthermore, sustaining a given telehealth program may not be a critical goal depending on the setting; rather, FQHCs may want to use telehealth and other tools to maintain a certain level of access to care.

Future research could inventory telehealth policies specific to FQHCs and explore relationships between policies and implementation of telehealth by FQHCs. While several organizations including the ATA and Center for Connected Health Policy regularly catalogue state telehealth policies, in conducting background research for this report, we found a dearth of information specific to FQHCs. For example, to our knowledge there is no data source on state policies on FQHCs serving as distant sites. If a goal is to increase the use of telehealth in the safety net, it is concerning that data on several of the policy barriers mentioned by our FQHC participants are not collected in a systematic way. Future research could survey the policy environment faced by FQHCs nationwide and explore whether certain policies seem to be associated with greater utilization of telehealth. This type of quantitative research could help triangulate the findings presented here.

Our study has several limitations. We did not sample until we reached saturation, as is often the convention in qualitative research. Given that no two states are exactly alike with respect to their Medicaid policies on telehealth and FQHCs are offering many different types of telehealth services, saturation would have likely required hundreds of interviews. As a result, the findings presented here should be considered exploratory. Also, although the stakeholders we engaged identified experiences with many different types of telehealth services, examples reported here likely represent a subset of the telehealth services that FQHCs are participating in across the United States. After consulting with a HRSA-funded Telehealth Resource Center that serves one of the states in our sample (Rheuban, 2018), we learned that one or more FQHCs in that state receive the following services via telehealth: behavioral health, breast and cervical cancer screening, cardiology, dermatology, diabetes education, diabetic retinopathy, endocrinology, hematology, hepatology, high-risk obstetrics, infectious disease, nephrology, neurology, orthopedics, pain management, plastic surgery, pulmonology, rheumatology, speech pathology, surgery, teleradiology services, urology, and wound care (LaMarche, 2018). Another HRSA-funded Telehealth Resource Center reported many of those same services among FQHCs in its multistate region, as well as telehealth for dentistry, pharmacy, substance use disorder treatment counseling, primary care, adolescent medicine, gastroenterology, and physical therapy (Beaton, 2017).

Finally, the findings we present reflect the opinions and perspectives of the FQHC representatives we engaged. FQHC representatives varied with respect to their knowledge of Medicaid policy, billing practices, and the history of their FQHC's telehealth programs. In select cases, participants made assertions about policy that conflicted with written policy or what we heard from state officials. Although we generally categorized these comments as misconceptions or confusion about policy, we cannot ensure the accuracy of all comments.

This study also has a number of strengths. We recruited a large, purposive sample of participants. In addition, we did not offer incentives for participation, which can motivate individuals to participate for financial gain or encourage them to provide socially desirable answers. Also, while this study was focused on the experiences of FQHCs, it is likely that many of the issues identified here are relevant to other types of health care entities and providers. Future research should compare and contrast the experiences of different safety-net providers.

These findings address a gap in the literature: Few resources are available on state and FQHC experiences with telehealth, which limits opportunities for state-to-state learning. Telehealth is widely recognized as a tool that can increase access to care and improve quality, and, given that FQHCs are experimenting with telehealth across the United States, it is highly likely that many have confronted challenges and implemented strategies that can benefit others at different stages of implementation. Studies such as this can support Medicaid programs and FQHCs in the important process of peer learning. Furthermore, our findings highlight the important role of policy, in combination with cultural, organizational, and infrastructure factors, in strengthening the delivery of telehealth services.

Appendix. Descriptions of Policies in Each State

Table A.1. State 1 Medicaid Policies

State Medicaid Policies	
Definition of Telehealth	State 1 (not State 1 Medicaid) defines <i>telehealth</i> as the use of technology for interactive video, audio, or other information exchange in support of medical diagnosis or treatment (Center for Connected Health Policy, 2017).
Allowable Modalities (Center for Connected Health Policy, 2017) ^a	
	Live video
	Store-and-forward
Allowable Services	None specified (Center for Connected Health Policy, 2017).
Allowable Specialties	There are no stated restrictions on allowable specialties.
Allowable Originating Sites	There are no stated restrictions on originating site (Center for Connected Health Policy, 2017).
Allowable Providers	No restrictions are placed on provider type (MACPAC, 2018; ATA, 2017).
Parity	Full parity coverage with few restrictions on reimbursement (ATA, 2017).
Geographic Restrictions	None (Center for Connected Health Policy, 2017)
Fees	None (Center for Connected Health Policy, 2017)
Consent Requirement	Informed consent is required, with no specification as to the method (written or verbal) (ATA, 2017).
Licensure	Providers must be licensed in the state where the patient resides.
Recent Legislative Activity (since 2017)	N/A
Comments	<ul style="list-style-type: none"> FQHCs can also receive reimbursement for e-consults for specialty care (Center for Connected Health Policy, 2017).

^a During interviews with Medicaid representatives from this state, we learned that the state Medicaid program does not reimburse FQHCs for live video, store-and-forward, or RPM.

Table A.2. State 2 Medicaid Policies

State Medicaid Policies	
Definition of Telehealth	State 2 (not State 2 Medicaid) defines <i>telehealth</i> as the use of telecommunication (interactive video and audio) for medical care or education (Center for Connected Health Policy, 2017).
Allowable Modalities (Center for Connected Health Policy, 2017)	Live video
Allowable Services	There are no stated restrictions on allowable services (Center for Connected Health Policy, 2017).
Allowable Specialties	There are no stated restrictions on allowable specialties (Center for Connected Health Policy, 2017).
Allowable Originating Sites	There are no stated restrictions on originating site (Center for Connected Health Policy, 2017).
Allowable Providers	No restrictions are placed on provider type (ATA, 2017).
Parity	Full parity coverage with few restrictions on reimbursement (ATA, 2017).
Geographic Restrictions	None (Center for Connected Health Policy, 2017)
Fees	None (Center for Connected Health Policy, 2017)
Consent	None (Center for Connected Health Policy, 2017)
Licensure	State 2 is an IMLC member state that permits expedited review, processing, and issuing of medical license applications (IMLC Commission, 2018). State 2 is a member of the eNLC (National Council of State Boards of Nursing, 2018a) and PTLC (Federation of State Boards of Physical Therapy, 2018).
Recent Legislative Activity (since 2017)	N/A
Comments	<ul style="list-style-type: none"> • A health care provider must be on site (not physically with the patient) during the telemedicine visit (ATA, 2017). • One of only six states that feature telemedicine in their proposals for health home state plan amendments from CMS (ATA, 2017)

Table A.3. State 3 Medicaid Policies

State Medicaid Policies	
Definition of Telehealth	The use of electronic communication to support the provision of medical care in cases in which geographic remoteness of patients or providers is a barrier (Center for Connected Health Policy, 2017).
Allowable Modalities (Center for Connected Health Policy, 2017)	
	Live video
	RPM
	Store-and-forward
Allowable Services	There are no stated restrictions on allowable services (Center for Connected Health Policy, 2017).
Allowable Specialties	There are no stated restrictions on allowable specialties (Center for Connected Health Policy, 2017).
Allowable Originating Sites (Center for Connected Health Policy, 2017)	
	Community mental health or private mental health center
	FQHC
	Indian Health Service clinic
	Outpatient hospital
	Provider offices
	Rural health clinic
	School-based clinic
	Therapeutic group homes
Allowable Providers	No restrictions are placed on provider type (MACPAC, 2018; ATA, 2017).
Parity	Full parity coverage with few restrictions on reimbursement (ATA, 2017).
Geographic Restrictions	None (Center for Connected Health Policy, 2017)
Fees	Reimbursement is provided to the originating site for a facility fee as long as the telepresenter is on site throughout the duration of the visit (Center for Connected Health Policy, 2017).
Consent Requirement	The State 3 medical board requires informed consent, without specifying method (ATA, 2017).
Licensure	State 3 is an IMLC member state and therefore has expedited review, processing, and issuing of medical license applications (IMLC Commission, 2018). State 3 is a member of the eNLC (National Council of State Boards of Nursing, 2018a) and PTLC (Federation of State Boards of Physical Therapy, 2018).
Recent Legislative Activity (since 2017)	N/A
Comments	<ul style="list-style-type: none"> State 3 limits its facility fees to originating sites that are community mental health centers, critical access hospitals, FQHCs, outpatient hospitals, provider offices, school-based clinics, therapeutic group homes, or Indian Health Service clinics.

Table A.4. State 4 Medicaid Policies

State Medicaid Policies	
Definition of Telehealth	State 4 (not State 4 Medicaid) defines <i>telehealth</i> as the use of interactive audio and video by a health care provider in support of medical diagnosis or treatment (Center for Connected Health Policy, 2017).
Allowable Modalities (Center for Connected Health Policy, 2017)	Live video Store-and-forward
Allowable Services	There are no stated restrictions on allowable services (Center for Connected Health Policy, 2017).
Allowable Specialties	There are no restrictions on allowable services (Center for Connected Health Policy, 2017). Dentistry is explicitly permitted (MACPAC, 2018).
Allowable Originating Sites	There are no stated restrictions on originating site (Center for Connected Health Policy, 2017).
Allowable Providers	No restrictions are placed on provider type (MACPAC, 2018; ATA, 2017).
Parity	Full parity coverage with few restrictions on reimbursement (ATA, 2017).
Geographic Restrictions	None (Center for Connected Health Policy, 2017)
Fees	Reimbursement is provided to the originating site for a facility fee, with some restrictions (Center for Connected Health Policy, 2017).
Consent Requirement	None (Center for Connected Health Policy, 2017)
Licensure	Out-of-state providers must obtain a telemedicine license to practice within State 4, unless they meet federal requirements for Indian Health Service facilities (Center for Connected Health Policy, 2017). State 4 is a member of the eNLC (National Council of State Boards of Nursing, 2018a).
Recent Legislative Activity (since 2017)	N/A
Comments	<ul style="list-style-type: none"> • One of only four states that reimburses for services provided by a behavioral analyst (ATA, 2017) • One of four states that supports telementoring activities associated with Project ECHO (MACPAC, 2018)

Table A.5. State 5 Medicaid Policies

State Medicaid Policies	
Definition of Telehealth	The use of audio and video technology for the delivery of real-time consultation services (Center for Connected Health Policy, 2017)
Allowable Modalities (Center for Connected Health Policy, 2017)	Live video
Allowable Services (Center for Connected Health Policy, 2017)	Physician-to-patient consultations
Allowable Specialties (Center for Connected Health Policy, 2017)	All physician specialties
Allowable Originating Sites	Provider office. A telepresenter must be present at the originating site (Center for Connected Health Policy, 2017).
Allowable Providers (Center for Connected Health Policy, 2017)	Physicians
Parity	Full parity coverage with modest restrictions on reimbursement (ATA, 2017)
Geographic Restrictions	None (Center for Connected Health Policy, 2017)
Fees	Reimbursement is available for originating sites to cover the cost of a facility fee (Center for Connected Health Policy, 2017).
Consent	Informed consent is required for telepsychiatry only (Center for Connected Health Policy, 2017).
Licensure	State 5 has applied to the IMLC for expedited review, processing, and issuing of medical license applications, but implementation is currently delayed (IMLC Commission, 2018).
Recent Legislative Activity (since 2017)	A bill introduced in June 2017 includes a provision for reimbursement under the state's Medicaid Assistance Program (Pennsylvania General Assembly, 2017).
Comments	<ul style="list-style-type: none"> • One of only three states that have used federal home- and community-based services waiver to administer in-home telemedicine to patients for RPM (ATA, 2017) • State 5 is the only state where telemedicine in the home provided by a caregiver is covered (ATA, 2017).

Table A.6. State 6 Medicaid Policies

State Medicaid Policies	
Definition of Telehealth	The use of technology for real-time or nearly-real-time exchanges of information to support diagnosis and treatment of medical conditions (Center for Connected Health Policy, 2017).
Allowable Modalities (Center for Connected Health Policy, 2017)	
	Live video
	RPM
	Store-and-forward
Allowable Services (Center for Connected Health Policy, 2017)	
	Continuous glucose monitoring (RPM)
	Diabetic retinopathy services (store-and-forward)
	Dermatological services (store-and-forward)
	Evaluation and management
	Psychiatric treatment
	Radiological services (live video and store-and-forward)
	Specialty medical procedures
Allowable Specialties (Center for Connected Health Policy, 2017)	
	Dermatology
	Mental/behavioral health services
	Psychiatry
	Radiology
	Specialty medical
Allowable Originating Sites (Center for Connected Health Policy, 2017)	
	Community services boards
	FQHCs
	Health department clinics
	Hospitals
	Local education agencies
	Nursing facilities
	Provider offices
	Renal units
	Residential treatment centers
	Rural health clinics
Allowable Providers (Center for Connected Health Policy, 2017)	
	Clinical nurse specialists (including psychiatric clinical nurse specialists)
	Clinical and school psychologists
	Clinical social workers
	Local education agencies (for speech therapy)
	Marriage and family therapist/counselor
	Nurse practitioners (including psychiatric nurse practitioners)
	Nurse midwives
	Physicians (including psychiatrists)
	Substance abuse or addiction specialists
Parity	
	Full parity coverage with modest restrictions on reimbursement (ATA, 2017)
Geographic Restrictions	
	None (Center for Connected Health Policy, 2017)
Fees	

State Medicaid Policies	
	Reimbursement is available to cover the cost of a facility fee (Center for Connected Health Policy, 2017).
Consent Requirement	
	Informed consent is required (Center for Connected Health Policy, 2017).
Licensure	
	Providers must be licensed in State 6 and enrolled in the Medicaid program (Center for Connected Health Policy, 2017). State 6 is a member of the eNLC (National Council of State Boards of Nursing, 2018a).
Recent Legislative Activity (since 2017)	
	N/A
Comments	
	<ul style="list-style-type: none"> • Providers or a proxy must attend the visit unless there is a documented reason why the staff member was not present for the visit (Center for Connected Health Policy, 2017). • Providers at mental health clinics must notify the State 6 developmental/behavioral health department at least ten days in advance of commencing to provide telemedicine services (Center for Connected Health Policy, 2017). • State 6 is one of three states that has expanded the coverage of telemedicine services for patients that have dual Medicaid and Medicare eligibility, through the Centers for Medicare and Medicaid Services Capitated Financial Alignment Model (MACPAC, 2018). • State 6 voted to expand Medicaid in 2018, with implementation planned for 2019.

Table A.7. State 7 Medicaid Policies

State Medicaid Policies	
Definition of Telehealth	The exchange of medical information between sites via telephone or electronic communications for the purpose of improving patient health (Center for Connected Health Policy, 2017).
Allowable Modalities (Center for Connected Health Policy, 2017)	Live video Telephone and email consultations
Allowable Services	State 7 Medicaid does place modest restrictions on reimbursement by service type (ATA, 2017).
Allowable Specialties	There are no stated restrictions on allowable specialties (Center for Connected Health Policy, 2017).
Allowable Originating Sites	There are no general restrictions on allowable originating sites (Center for Connected Health Policy, 2017).
Allowable Providers	There are no restrictions on provider type. (MACPAC, 2018; ATA, 2017)
Parity	Full parity coverage with few restrictions on reimbursement (ATA, 2017).
Geographic Restrictions	None (Center for Connected Health Policy, 2017)
Fees	State 7 Medicaid will reimburse an originating site for transmission fees (Center for Connected Health Policy, 2017).
Consent Requirement	None (Center for Connected Health Policy, 2017)
Licensure	State 7 is a member of the PTLC; however, it is unclear whether State 7 Medicaid observes this. State 7 Medicaid regulation requires that both the referring clinician and the evaluating clinician must be licensed to practice medicine in State 7 and enrolled as a state Medicaid provider (Center for Connected Health Policy, 2017). State 7 is one of the nine states that issues special licenses for telehealth (ATA, 2017).
Recent Legislative Activity (since 2017)	N/A
Comments	<ul style="list-style-type: none"> • One of the few states that permit reimbursement for certain patient consultations via telephone (MACPAC, 2018) • One of four states that supports telementoring activities associated with Project ECHO (MACPAC, 2018)

References

- ATA—*See* American Telemedicine Association.
- American Telemedicine Association, *State Telemedicine Gaps Analysis: Coverage and Reimbursement*, Arlington, Va., February 2017. As of May 8, 2018:
<http://www.americantelemed.org/policy-page/state-telemedicine-gaps-reports>
- Antoniotti, N. M., K. P. Drude, and N. Rowe, “Private Payer Telehealth Reimbursement in the United States,” *Telemedicine and e-Health*, Vol. 20, No. 6, 2014, pp. 539–543.
- Association of State and Provincial Psychology Boards, *Psychology Interjurisdictional Compact (PSYPACT)*, Tyrone, Ga., 2018. As of September 10, 2018:
<https://www.asppb.net/page/PSYPACT>
- Beaton, T., “PA Legislature Introduces Telemedicine Reimbursement Bill,” *mHealth Intelligence*, June 28, 2017. As of May 10, 2018:
<https://mhealthintelligence.com/news/pa-legislature-introduces-telemedicine-reimbursement-bill>
- Center for Connected Health Policy, “Assessing the Impact of Telehealth Private Payer Laws Across States,” undated. As of July 12, 2017:
<http://www.cchpca.org/assessing-impact-telehealth-private-payer-laws-across-states>
- , *State Telehealth Laws and Reimbursement Policies: A Comprehensive Scan of the 50 States and District of Columbia*, Sacramento, Calif., April 2017. As of May 8, 2018:
<http://www.cchpca.org/reports-and-policy-briefs>
- Centers for Medicare and Medicaid Services, *Medicaid Managed Care Enrollment and Program Characteristics, 2016*, Baltimore, Md., 2018. As of August 1, 2018:
<https://www.medicare.gov/medicaid/managed-care/enrollment/index.html>
- Dedoose, computer program, Version 7.0.23, Los Angeles, Calif.: SocioCultural Research Consultants, 2016.
- Federation of State Boards of Physical Therapy, *Physical Therapy Licensure Compact*, updated May 3, 2018. As of May 8, 2018:
<http://www.fsbpt.org/FreeResources/PhysicalTherapyLicensurecompact.aspx>
- Henry J. Kaiser Family Foundation, *Total Medicaid Managed Care Enrollment*, San Francisco, Calif., April 27, 2018a. As of May 8, 2018:
<https://www.kff.org/medicaid/state-indicator/total-medicare-mc-enrollment/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D>

- , *Status of State Action on the Medicaid Expansion Decision*, San Francisco, Calif., July 27, 2018b. As of September 18, 2018:
<https://www.kff.org/health-reform/state-indicator/state-activity-around-expanding-medicaid-under-the-affordable-care-act/?currentTimeframe=0&sortModel=%7B%22collId%22:%22Location%22,%22sort%22:%22asc%22%7D>
- Health Resources and Services Administration, “Electronic Health Record Capabilities and Quality Recognition,” database, updated 2016a. As of February 11, 2018:
<https://bphc.hrsa.gov/uds2016/datacenter.aspx?q=tehr&year=2016&state=>
- , *2016 Health Center Profile*, database, May 2016b. As of May 8, 2018:
<https://bphc.hrsa.gov/uds/datacenter.aspx?q=d>
- , *Health Resources & Services Administration Data Warehouse: Health Center Service Delivery and Look-Alike Sites—Health Center Service Delivery Sites*, data portal, May 2016c. As of May 8, 2018:
<https://datawarehouse.hrsa.gov/tools/DataPortalResults.aspx?paramServiceId=HCSD>
- , *Urban/Rural Setting: Health Center Service Delivery Sites*, data portal, 2016d. As of May 8, 2018:
<https://datawarehouse.hrsa.gov/tools/dataportal.aspx>
- , *Uniform Data System (UDS) Resources*, database, updated June 2018. As of May 1, 2018:
<https://bphc.hrsa.gov/datareporting/reporting/index.html>
- Howe, G., A. Hamblin, and L. Moran, *Financing Project ECHO: Options for State Medicaid Programs*, Hamilton, N.J.: Center for Health Care Strategies, September 2017. As of August 1, 2018:
https://www.chcs.org/media/ECHO-Medicaid-Financing-Brief_091217-2.pdf
- HRSA—*See* Health Resources and Services Administration.
- IMLC Commission—*See* Interstate Medical Licensure Compact Commission.
- Infinx Healthcare, “How the PTLC Creates Compact States for Physical Therapy,” updated April 30, 2018. As of May 8, 2018:
<https://www.infinxinc.com/how-the-ptlc-creates-compact-states-for-physical-therapy/>
- Institute of Medicine, *The Role of Telehealth in an Evolving Health Care Environment: Workshop Summary*, Washington, D.C.: National Academies Press, 2012.
- Interstate Medical Licensure Compact Commission, “The IMLC,” homepage, updated 2018. As of May 8, 2018:
<http://www.imlcc.org/>
- LaMarche, D., personal communication with the authors, September 2, 2018.

- MACPAC—*See* Medicaid and CHIP Payment and Access Commission.
- Medicaid and CHIP Payment and Access Commission, *Report to Congress on Medicaid and CHIP*, Washington, D.C., March 15, 2018. As of May 8, 2018:
<https://www.macpac.gov/wp-content/uploads/2018/03/Report-to-Congress-on-Medicaid-and-CHIP-March-2018.pdf>
- Medicare Payment Advisory Commission, *Medicare Payment Policy*, Washington, D.C., March 15, 2018. As of May 8, 2018:
http://www.medpac.gov/docs/default-source/reports/mar18_medpac_entirereport_sec.pdf?sfvrsn=0
- Mehrotra, A., A. B. Jena, A. B. Busch, J. Souza, L. Uscher-Pines, and B. E. Landon, “Utilization of Telemedicine Among Rural Medicare Beneficiaries,” *Journal of the American Medical Association*, Vol. 315, No. 18, 2016, pp. 2015–2016.
- Moore, M. A., M. Coffman, A. Jetty, S. Petterson, and A. Bazemore, “Only 15% of FPs Report Using Telehealth; Training and Lack of Reimbursement Are Top Barriers,” *American Family Physician*, Vol. 93, No. 2, 2016.
- National Association of Community Health Centers, *Telehealth and Health Centers*, Washington, D.C., April 2018a. As of August 31, 2018:
<http://www.nachc.org/wp-content/uploads/2018/04/Telehealth-and-Health-Centers-4.18.pdf>
- , *America’s Health Centers*, Washington, D.C., August 2018b. As of February 11, 2018:
http://www.nachc.org/wp-content/uploads/2018/08/AmericasHealthCenters_FINAL.pdf
- , *America’s Health Centers*, Washington, D.C., October 2016. As of February 11, 2018:
<http://www.nachc.org/wp-content/uploads/2016/11/NACHC-BHI-Impact-of-State-Health-Policies-on-Integrated-Care-at-Health-Ctrs-FINAL-102816.pdf>
- , *America’s Health Centers*, Washington, D.C., December 2013. As of February 11, 2018:
<http://www.nachc.org/wp-content/uploads/2015/11/Telemedicine-SPR482.pdf>
- National Consortium of Telehealth Resource Centers, “About Our Consortium,” webpage, updated 2018. As of August 30, 2018:
<https://www.telehealthresourcecenter.org/about-us/>
- National Council of State Boards of Nursing, “Enhanced Nurse Licensure Compact (eNLC) Implementation,” updated 2018a. As of May 8, 2018:
<https://www.ncsbn.org/enhanced-nlc-implementation.htm>
- , “Advanced Practice Nurse (APRN) Compact,” updated 2018b. As of May 8, 2018:
<https://www.ncsbn.org/aprn-compact.htm>
- Nelson, C. A., J. Takeshita, K. A. Wanat, K. D. Bream, J. H. Holmes, H. C. Koenig, R. R. Roth, A. Vuppalapati, W. D. James, and C. L. Kovarik, “Impact of Store-and-Forward (SAF)

Teledermatology on Outpatient Dermatologic Care: A Prospective Study in an Underserved Urban Primary Care Setting,” *Journal of the American Academy of Dermatology*, Vol. 74, No. 3, 2016, pp. 484–490.

Pennsylvania General Assembly, *An Act Relating to Telemedicine; Authorizing the Regulation of Telemedicine by Professional Licensing Boards; and Providing for Insurance Coverage of Telemedicine*, Senate Bill 780, June 2017.

Rheuban, K., personal communication with the authors, August 28, 2018.

Ryan, G. W., and H. R. Bernard, “Techniques to Identify Themes,” *Field Methods*, Vol. 15, No. 1, 2003, pp. 85–109.

Tracy, J., K. Rheuban, R. J. Waters, M. DeVany, and P. Whitten, “Critical Steps to Scaling Telehealth for National Reform,” *Telemedicine and e-Health*, Vol. 14, No. 9, 2008, pp. 990–994.

U.S. Census Bureau, *Percent Urban and Rural in 2010 by State*, March 26, 2012. As of May 8, 2018:

<https://www.census.gov/geo/reference/ua/urban-rural-2010.html>

———, *Census Regions and Divisions of the United States*, updated 2017. As of May 8, 2018: https://www2.census.gov/geo/pdfs/maps-data/maps/reference/us_regdiv.pdf

Uscher-Pines, L., and J. M. Kahn, “Barriers and Facilitators to Pediatric Emergency Telemedicine in the United States,” *Telemedicine and e-Health*, Vol. 20, No. 11, 2014, pp. 990–996.

Uscher-Pines, L., R. Malsberger, L. Burgette, A. Mulcahy, and A. Mehrotra, “Effect of Teledermatology on Access to Dermatology Care Among Medicaid Enrollees,” *JAMA Dermatology*, Vol. 152, No. 8, 2016, pp. 905–912.

Uscher-Pines, L., R. Rudin, and A. Mehrotra, “Leveraging Telehealth to Bring Volunteer Physicians into Underserved Communities,” *Telemedicine and e-Health*, Vol. 23, No. 6, 2017, pp. 533–535.

Vimalananda, V. G., G. Gupte, S. M. Seraj, J. Orlander, D. Berlowitz, B. G. Fincke, and S. R. Simon, “Electronic Consultations (e-consults) to Improve Access to Specialty Care: A Systematic Review and Narrative Synthesis,” *Journal of Telemedicine and Telecare*, Vol. 21, No. 6, 2015, pp. 323–330.

Wilson, F. A., S. Rampa, K. E. Trout, and J. P. Stimpson, “Reimbursements for Telehealth Services are Likely to Be Lower Than Non-Telehealth Services in the United States,” *Journal of Telemedicine and Telecare*, Vol. 23, No. 4, 2017, pp. 497–500.