The Center for Health Law and Policy Innovation of Harvard Law School (CHLPI) advocates for legal, regulatory, and policy reforms to improve the health of underserved populations, with a focus on the needs of low-income people living with chronic illnesses and disabilities. CHLPI works with consumers, advocates, community-based organizations, health and social services professionals, food providers and producers, government officials, and others to expand access to high-quality healthcare and nutritious, affordable food; to reduce health disparities; to develop community advocacy capacity; and to promote more equitable and effective healthcare and food systems. CHLPI is a clinical teaching program of Harvard Law School and mentors students to become skilled, innovative, and thoughtful practitioners as well as leaders in health, public health, and food law and policy.

Farmworker Justice is a nonprofit organization that seeks to empower migrant and seasonal farmworkers to improve their living and working conditions, immigration status, health, occupational safety, and access to justice. We work with farmworkers and their organizations throughout the nation. Based in Washington, D.C, Farmworker Justice was founded in 1981. In 1996, Farmworker Justice became a subsidiary corporation of National Council of La Raza, the nation’s largest constituency-based Hispanic civil rights organization. Farmworker Justice maintains an independent Board of Directors and 501(c)(3) status as a charitable corporation. Our vision is a nation where farmworkers are organized and their organizations are equipped with the tools to end discrimination against agricultural workers in labor laws and demand effective enforcement so that farmworkers enjoy the same workplace rights that protect employees in other occupations and exercise them without retaliation; promote higher wages, better working conditions, and comprehensive immigration reform that will improve farmworkers’ lives and stabilize the agricultural labor force; and access health and job safety information to address HIV/AIDS within farmworker communities, limit exposure to toxic pesticides, and reduce preventable workplace injuries.

Vista Community Clinic. Welcoming. Trustworthy. Innovative. Caring. These qualities have defined VCC since it first opened in the basement of a local animal shelter in 1972. VCC quickly became the health care safety net for the area’s poor and uninsured by giving them access to the high quality health services that they needed and deserved. Today VCC is recognized as a key regional health provider with seven state-of-the-art clinics treating more than 60,000 patients each year. Our innovative model of community health provides low cost, high quality health care to the residents of San Diego, Riverside and Orange county communities. Vision: A community where every person chooses health. Mission: To advance community health and hope by providing access to premier health services and education for those who need it most.

Campesinos Sin Fronteras is a not-for-profit 501c3 organization founded in 1999 and is integrated into the Hispanic communities of South Yuma County. The heart of CSF is the direct involvement of the farm worker population through the use of the Promotora Model. CSF’s Promotoras (Community Health Workers) are members of the community they serve; they are highly effective in identifying and addressing needs as well as involving community members in advocacy to influence policy. Campesinos Sin Fronteras’ mission is to promote self-sustainability to farmworkers and low-to moderate-income individuals by providing and facilitating access to health, behavioral health and social services as well as housing rehabilitation, counseling, education and workforce development programs. Campesinos Sin Fronteras’ vision and strength are in the advocacy process that fosters long-term strategies and solutions to address the priorities identified by community members in a culturally and linguistically competent manner.

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# Table of Contents

Executive Summary............................................................................................................................i

Introduction.........................................................................................................................................1

What is Telehealth?............................................................................................................................2

Rural Residents in the United States Face Unique Barriers to Accessing Care..........................................3

Migrant Workers and Farmworkers Face Additional Obstacles to Accessing Care....................................4

Increased Use of Telehealth in Rural Communities Can Overcome Barriers to Care Access and Quality.................................................................................................................5

Legal, Administrative, Technological, and Cultural Issues Present Barriers to Full Integration of Telehealth into Health Care Delivery and Financing in Rural Areas.....................................................................7

To Enable Full Integration of Telehealth into Effective and Holistic Models of Care for Rural Residents, Policymakers Should Take the Following Steps to Address these Barriers.................................................................9

Conclusion.........................................................................................................................................15
Executive Summary

Many residents of rural areas experience significant challenges in accessing quality health care. Broadening the use of telehealth is one promising strategy for increasing access to care in rural communities. Telehealth is “communication and information technologies [used] to provide or support long-distance clinical health care, patient and professional health-related education, public health, and health administration.”

This issue brief explores the potential for telehealth to enhance access and quality of care in rural America. It describes barriers to integration of telehealth into health care delivery and financing. Finally, it calls for policy change that will encourage and increase responsible use of telehealth to improve the health outcomes and healthcare experience of those who live in non-urban communities.

<table>
<thead>
<tr>
<th>Common ways to deliver telehealth, according to the Center for Connected Health Policy, include: 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑ Video Conferencing (Synchronous)</td>
</tr>
<tr>
<td>Live, two-way interaction between a patient and a provider using audiovisual telecommunications technology.</td>
</tr>
<tr>
<td>☑ Store-and-Forward (Asynchronous)</td>
</tr>
<tr>
<td>Transmission of medical information, such as digital images, documents, and pre-recorded videos, through an electronic communications system to a provider who uses the information to evaluate the case or render a service outside of a real-time or live interaction.</td>
</tr>
<tr>
<td>☑ Remote Patient Monitoring (RPM)</td>
</tr>
<tr>
<td>Electronic transmission of personal health and medical data collection from a patient in one location to a provider in a different location for use in care and related support.</td>
</tr>
<tr>
<td>☑ Mobile Health (mHealth)</td>
</tr>
<tr>
<td>Clinical and public health services and education supported by mobile communication devices such as cell phones and tablet computers.</td>
</tr>
<tr>
<td>☑ eConsult</td>
</tr>
<tr>
<td>A primary care provider (PCP) consults with a specialist via live video conferencing or store-and-forward.</td>
</tr>
</tbody>
</table>

Rural residents in the United States face unique barriers to accessing healthcare, including:

- A shortage of physician who practice in rural areas. 4
- Lack of financial resources. 5
- Lack of access to employer-based health insurance and Medicaid. 6
- A shortage of physicians, especially specialists, who will accept Medicaid. 7
Migrant workers and farmworkers may face additional obstacles to accessing care:

- Difficulty obtaining insurance and disruptions in coverage when moving across state lines for work.\(^8\)
- Language barriers.\(^9\)
- Lack of childcare and children’s exposure to the parent’s job-related hazards like chemical and pesticide-related illness.\(^10\)

Increased use of telehealth in rural communities can overcome barriers to care access and quality. Telehealth can:

- Bring more primary care and specialist services to patients in their home communities.
- Reduce the costs for patients of obtaining medical care far from home, such as travel expenses, lost wages, and childcare costs.
- Increase the reach of formal networks of donated care to those who are uninsured or underinsured.
- Enable safety net clinics like Federally Qualified Health Centers (FQHCs), Rural Health Centers (RHCs), and Migrant Health Centers (MHCs) to hire and retain specialty providers.
- Increase access to culturally and linguistically competent care.
- Enable continuity of care when individuals move frequently.

Legal, administrative, technological, and cultural issues present barriers to full integration of telehealth into health care delivery and financing in rural areas. These barriers include:

- **Legal:**
  - Coverage and reimbursement policies and procedures vary widely among Medicare, state Medicaid, other state-funded public insurance programs, and private payers.\(^11\)
    Even if telehealth services are covered, they are often reimbursed at lower rates than in-person services, or providers may believe that they are.\(^12\)
  - Providers at FQHCs and other safety-net clinics are often frustrated by a restriction on billing for multiple visits in the same day.
  - Health care providers are typically limited to practicing in the state(s) where they are licensed; physician licensure portability is a barrier to telehealth.\(^13\)
  - Physicians are often prevented from rendering services to patients in a remote hospital system, since they must be credentialed and privileged there.\(^14\)
  - Malpractice insurance carriers may not cover telehealth services to the same degree as in-person services, or across state lines.\(^15\)
Executive Summary

○ Administrative:
  • Incorporating telehealth services into existing clinical workflow places additional administrative responsibilities on providers that can be time-consuming and expensive to accommodate.

○ Technological:
  • Inconsistency in the availability of high-speed broadband can make it challenging to implement telehealth programs in certain rural locations.\(^{16}\)
  • Implementing and maintaining telehealth technology requires dedicated IT support and a significant investment to learning new technology from providers.\(^{17}\)
  • Telehealth adds a new layer of risks and vulnerabilities to handling electronic health data. Parties involved in providing telehealth services must determine whether they are subject to HIPAA and, if so, conduct a thorough assessment of potential security risks and vulnerabilities and comply with all HIPAA regulations and requirements.\(^{18}\)

○ Cultural:
  • Many patients and providers are reluctant to move away from more traditional models of care, fearing “a breakdown in the relationship between the health professional and the patient.”\(^{19}\)

To enable full integration of telehealth into effective and holistic models of care for rural residents, policymakers should take the following steps to address these barriers:

○ Support legislation and regulation at the federal and state level that expands coverage in Medicare, Medicaid, and private insurance for care provided via telehealth.

○ Increase funds for telehealth technology, technical assistance, and training.
  • For example, increased funds are needed to:
    • Support learning networks, especially among FQHCs, RHCs, MHCs, and other smaller providers, as they seek to use telehealth to enhance effective care delivery in rural settings.\(^{20}\)
    • Support new partnerships and collaborations among rural providers to pool resources (share providers or technology personnel) to increase telehealth capacity.
Executive Summary

- Encourage alternative payment models to allow for hiring of technology personnel.
- Improve access to broadband in rural areas.
- Ensure that telehealth technologies are used to enhance, not replace, a coordinated and holistic model of care.

  - To encourage thoughtful integration of telehealth into care systems, Congress or federal agencies could create initiatives that:
    - Provide incentives to rural providers who use telehealth to enhance the capacity of those sites to deliver care in a patient’s first language.
    - Fund demonstration projects or pilots that use CHWs or other mid-level providers who spend more time with patients to facilitate telehealth service delivery.
    - Support efforts to house telehealth equipment and deliver care in mobile vehicles, such as vans that can travel to patients and are outfitted to take high-quality images that can be forwarded to relevant specialists, such as a dermatologist, for review.
    - Provide funding to address interoperability and other challenges in electronic medical record systems so that care provided via telehealth is able to be seamlessly integrated into a patient's existing medical record.

The federal government and states should pursue legislative and regulatory changes that increase consistency in coverage and reimbursement for telehealth services, loosen restrictions on the circumstances under which telehealth services can be provided, and incentivize providers to participate in delivering care to patients via a broad range of telehealth technologies. Increased investment should be made in expanding access to broadband and in supporting rural health providers in obtaining the equipment and technical expertise necessary to administer care via telehealth. Finally, all steps to increase access to health care via telehealth should be taken with an eye toward ensuring that the delivered care is effective, coordinated, and right for the patient. The smart use of new technology in the health care field has the potential to dramatically improve both access to care and quality of care in rural communities across the nation.
Introduction

Many residents of rural areas experience significant challenges in accessing quality healthcare. Broadening the use of telehealth is one promising strategy for increasing access to care in rural communities. Telehealth is “communication and information technologies [used] to provide or support long-distance clinical health care, patient and professional health-related education, public health, and health administration.” Telehealth should be an integral part of a larger system of well-coordinated care and should support and enhance other best practices and evidence-based strategies that have been successful in improving healthcare in rural areas.

This issue brief explores the potential for telehealth to enhance healthcare access and quality of care in rural America. It describes barriers to integration of telehealth into healthcare delivery and financing. Finally, it calls for policy change that will encourage and increase responsible use of telehealth to improve the health outcomes and healthcare experience of those who live in non-urban communities.
What is telehealth?

Defining Telehealth
In this document, telehealth refers to the provision of healthcare from a remote location by means of telecommunication technology. Although “telehealth” is often used interchangeably with “telemedicine” and “telepractice,” some states assign unique definitions to each of these terms. These differences can become significant when it comes to issues such as financial reimbursement, and it is important to review the terms and definitions that are used in your state.¹

Delivering Care via Telehealth
As noted by the Center for Connected Health Policy, common ways to deliver health care via telehealth include:²

- **Video Conferencing (Synchronous)**
  Live, two-way interaction between a patient and a provider using audiovisual telecommunications technology.
  
  Example: Rural patients and their primary care providers (PCPs) in rural southern California can videoconference with an oncologist in San Francisco in real time.

- **Store-and-Forward (Asynchronous)**
  Transmission of medical information, such as digital images, documents, and pre-recorded videos, through an electronic communications system to a provider who uses the information to evaluate the case or render a service outside of a real-time or live interaction.
  
  Example: Rural patients or their PCPs can send a high-resolution image of a suspicious skin lesion to a distant dermatologist, who can review the image and report their findings to the patient and PCP and determine the need for an in-person visit.

- **Remote Patient Monitoring (RPM)**
  Electronic transmission of personal health and medical data collection from a patient in one location to a provider in a different location for use in care and related support.
  
  Example: Rural patients with hypertension or Type 2 diabetes can monitor their blood pressure or blood glucose through mobile apps.

- **Mobile Health (mHealth)**
  Clinical and public health services and education supported by mobile communication devices such as cell phones and tablet computers.
  
  Example: Rural patients can use mHealth apps to access information about how to manage their diets, or receive text message alerts about disease outbreaks.

- **eConsult**
  A primary care provider (PCP) consults with a specialist via live video conferencing or store-and-forward.
  
  Example: Together the PCP and specialist triage and determine a patient’s need for an in-person visit to a specialist, or the specialist makes recommendations and the PCP carries them out.
Rural residents in the United States face unique barriers to accessing care. These include:

- **A shortage of physicians who practice in rural areas.**
  Rural America is home to 20% of the U.S. population, but only about 10% of its practicing physicians. As the proportion of specialists who practice in rural areas is even smaller—for example, only 3% of medical oncologists practice in rural locations. As a result, rural residents often must travel long distances to reach health care providers. 21.4% of rural residents endure a high travel burden (30 miles or greater) for medical or dental care as compared to 4.5% of their urban counterparts. Long trips require access to reliable transportation and a significant investment of time, which can be challenging for those without private vehicles and who are unable to miss a day of work without repercussion.

- **A shortage of physicians, especially specialists, who will accept Medicaid.**
  Out of all medical practices in the country, fewer than 50% accept Medicaid patients. Moreover, many Medicaid patients who are accepted by specialist practices as patients are likely to experience much longer wait times for an appointment than privately insured peers.

- **Lack of financial resources.**
  14% of rural residents live below the poverty line compared with 11% in urban areas. Per capita income in rural areas is 27% lower than in urban locations. This makes health care expenses such as insurance premiums, office visits, and prescription drugs even more challenging, particularly when residents are struggling to afford other basic needs like housing, food, transportation, and utilities.

- **Lack of access to health insurance.**
  Enrolling in comprehensive health insurance is a fundamental first step to accessing health care. Rural residents are less likely to have access to employer-based insurance than their urban counterparts. In addition, due to some states’ decisions not to expand Medicaid, more rural residents (15% versus 9% in urban areas) fall into what is known as the “coverage gap”—that is, they are ineligible for Medicaid and yet unable to receive federal subsidies to purchase insurance in the individual market because their incomes are too low.
Migrant workers and farmworkers face additional obstacles to accessing care.

These include:

- **Increased barriers to insurance coverage.**
  These individuals are significantly more likely to lack eligibility for insurance or information on how to secure insurance coverage. Those who are eligible for insurance may experience gaps in coverage and access to care when moving across state lines for work.

- **Heightened anxieties related to their immigration status.**
  Immigration policies aimed at increasing immigration enforcement have bred fear and distrust among immigrant communities. These sentiments have a negative impact on patients’ access to health care as they deter individuals from applying for benefits and accessing preventive health services.

- **Language barriers.**
  As of 2003, 92% of farmworkers in the United States were “linguistically diverse,” with half of these individuals having Spanish as the dominant language. Given the diversity in the patient population and the shortage of physicians in the areas at issue, these individuals are likely to experience a lack of culturally and linguistically competent providers. Although studies have shown that patients who have access to materials and health care in their own language are more likely to obtain preventive care such as screenings, many patients who need translation services do not have a qualified translator during appointments. Lack of adequate translation services hampers the ability to follow medical advice outside of the clinical appointment, properly take prescription medication, and know when to seek follow-up treatment.

- **Childcare and safety.**
  Farmworkers often bring young children to work, meaning that they would have to secure temporary childcare in order to seek medical help. Additionally, the children themselves are more susceptible to the myriad of health hazards that farmworkers are exposed to (e.g. chemical and pesticide-related illnesses, dermatitis, and respiratory conditions).

- **Transportation and housing.**
  Migrant workers and farmworkers are more likely than other rural residents to lack access to reliable transportation, which makes getting to a health care provider’s office a challenge. Many live in “substandard housing” which lacks basic amenities such reliable refrigeration for storing temperature-sensitive medications. Overcrowded living conditions and a lack of privacy can make it difficult to keep medications and other health-related equipment in a consistently safe location.

- **Unique employment-related challenges.**
  Migrant workers and farmworkers often work very long hours, have no paid leave, and cannot attend medical appointments when clinics are traditionally open. Many fear retaliation or discriminatory treatment by their employer for taking time to visit the doctor or reporting injuries or other health problems that could be work-related.
Increased use of telehealth in rural communities can overcome barriers to care access and quality.

Telehealth technologies can be used to:

- **Bring more primary care and specialist services to patients in their home communities.**
  
  Via telehealth, for example, a provider in the urban core of San Diego or located at a prominent academic medical center could video conference in real time with a patient in a small town hours away. Rural providers can send digital images or other documents to a distant specialist who will review the materials remotely and provide an evaluation or determine the need for an in-person or follow-up remote visit (also known as store-and-forward telehealth). Finally, the use of electronic consultations (e-consults) between rural primary care providers and non-rural specialists can help increase the capacity of rural primary care physicians to competently deliver more complex care to patients in their local clinics. Capacity-building among rural providers can increase both the ability to treat patients in their home communities and, crucially, the job satisfaction of rural providers.\(^{22}\)

- **Reduce ancillary costs for patients obtaining medical care far from home (travel expenses, lost wages, etc.)**
  
  Patients who don’t have to travel long distances for care save on gas or taxi costs, childcare costs, and don’t lose as many wages.

- **Increase the reach of formal networks of donated care to those who are uninsured or underinsured.**
  
  Across the country, efforts are underway to establish formal networks of donated care for the uninsured and underinsured.\(^{23}\) Telehealth can increase the geographic reach of these networks by allowing willing providers to donate care to remote patients.

- **Enable safety net clinics like Federally Qualified Health Centers (FQHCs), Rural Health Centers (RHCs), and Migrant Health Centers (MHCs) to hire and retain specialty providers.**
  
  By allowing FQHCs and MHCs to share the services of specialists that are based at one site, these vital safety net clinics can increase the capacity to deliver specialty care to their patients regardless of a patients’ insurance status (whether a Medicaid or Medicare recipient, privately insured, or uninsured).

- **Increase access to culturally competent care.**
  
  The use of telehealth can be particularly beneficial to communities where language or cultural barriers make it difficult for patients to fully engage with their providers, allowing multi-lingual and diverse providers to treat or consult about patients remotely.

- **Enable continuity of care.**
  
  Telehealth technologies can also improve continuity of care for populations such as farmworkers, which are particularly likely to switch health care providers with relative frequency.\(^{24}\)
Providing care via telehealth will yield positive outcomes for patients if telehealth as a method of care delivery is integrated into a broader continuum of patient care. Telehealth should be used to support and extend the reach of evidence-based strategies for increasing access to care and quality of care in rural communities. For example, Community Health Workers (CHWs), often called Promotores de Salud in Spanish-speaking communities, play a critical role in helping patients navigate the healthcare system to access both standard and telehealth-supported healthcare services. CHWs are trained frontline workers who bridge the information, communication, and cultural gaps common between low-income, and underserved patients and clinical services. CHWs provide a critical and essential link with health systems and are a powerful force for promoting healthy behaviors in resource-constrained settings to reduce the burden of disease. Several studies have demonstrated that health interventions integrating CHWs can lead to positive behavior changes and lower morbidity and mortality rates, while moving services closer to the communities where they are actually needed. Further, some CHW programs report equally high quality of care at lower cost when compared to traditional approaches.

Rural communities face numerous healthcare challenges, including: hospital closures, lack of access to healthcare services, healthcare professional shortages and lack of culturally appropriate services. The benefits of CHW services are particularly pronounced in rural communities, where CHWs are able to expand access to health services in areas where transportation and provider shortages pose a problem.

CHWs have the interest, skills and abilities to incorporate new technologies into their work. For example, CHWs have used mobile phone tools to advance a broad range of health aims particularly maternal and child health, HIV/AIDS, and sexual and reproductive health. Studies that evaluated program outcomes provide some evidence that mobile tools help community health workers to improve the quality of care provided, efficiency of services, and capacity for program monitoring. Including CHWs as part of the telehealth team provides unique opportunities to bridge remote clinical and health interventions with on-the-ground community-based resources, including identification and recruitment of patients, community outreach education, and monitoring and referrals to other services in the community.

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Legal, administrative, technological, and cultural issues present barriers to full integration of telehealth into health care delivery and financing in rural areas.

While telehealth offers promising solutions to some of the problems in accessing care for rural residents, both patients and providers are not always able to take advantage of advances in health technology. Reasons for this include:

**LEGAL BARRIERS**

An inconsistent patchwork of laws and regulations make it difficult for providers to understand when they can provide telehealth services and how they will be paid for delivering healthcare via telehealth.

- **Uncertainty about coverage and reimbursement of telehealth services is a major barrier to its increased use.**

  Providers are often unsure about what is covered. Coverage and reimbursement policies and procedures vary widely among Medicare, state Medicaid, other state-funded public insurance programs, and private payers. For example, a state Medicaid program might reimburse for live video conferencing, but not store-and-forward, or they might reimburse for telehealth services provided by a physician, but not a nurse practitioner. Medicare provides more uniform coverage of telehealth across all states, but such coverage is limited to certain services; for example, Medicare does not currently cover store-and-forward services or Remote Patient Monitoring, except in Alaska and Hawaii, and does not allow patients to receive telehealth services in their homes, as opposed to in a clinical setting. Laws about private insurance coverage of telehealth are also inconsistent from state to state, with only some states requiring certain telehealth services to be covered by all private insurers that are licensed to operate in the state. As of August 2016, thirty-two states required private insurers to cover and reimburse telehealth services at comparable rates to services delivered in person.

  Even if telehealth services are covered, they are often reimbursed at lower rates than in-person services, or providers may believe that they are. Some state parity laws only address coverage of telehealth services by private insurers—not reimbursement. This means that while private insurers might have to cover a particular telehealth service, the reimbursement rate for providers could be significantly lower than the rate for in-person services, thus disincentivizing providers to participate in delivering care via telehealth.

  Providers at FQHCs are often frustrated by a restriction on billing for multiple visits in the same day. If a patient needs to see both a specialist and a primary care provider, the patient must see those providers on different days. This represents a large burden on rural patients in travel time and loss of resources. It is also an administrative burden on the provider’s side, as the provider must schedule visits on two days and risk a no-show on a day that isn’t as convenient for the patient. This billing restriction can cause similar difficulties for administering services via telehealth. For example, a patient could not visit a FQHC for a primary care visit and remain in the same location to video-conference with a remote specialist in the same day.

  Finally, even if telehealth services are covered and reimbursed, reimbursement procedures are often cumbersome and time-consuming for providers and their staff. Providers face uncertainty in how to bill for telehealth and which codes to use.
Health care providers are typically limited to practicing in the state(s) where they are licensed; physician licensure portability is a barrier to telehealth.\textsuperscript{33}

While telehealth technology makes it easy for quality care to be delivered across state lines, providers typically must be licensed in every state where they treat patients. While some states have taken steps to increase patient access to out-of-state providers, such as allowing cross-border licensing or special telehealth licenses, enhanced access to out-of-state medical expertise is inconsistent from state to state.\textsuperscript{34}

Physicians are often prevented from rendering services to patients in a remote hospital system, since they must be credentialed and privileged there.

To treat patients at a certain hospital or within a certain hospital system, physicians frequently need to be both credentialed (certified as qualified to be on the medical staff) and obtain hospital privileges (the ability to treat certain conditions or perform specific procedures).\textsuperscript{35} This can be a costly and time-consuming process. The Centers for Medicare & Medicaid Services (CMS) has addressed this challenge by allowing hospitals where the patient is physically located to rely on the credentialing and privileging decisions made by the distant-site hospital or facility, as long as the originating hospital ensures that the credentialing and privileging procedures of the distant site meet certain criteria.\textsuperscript{36} However, hospitals must ensure that medical staff bylaws meet the requirements of the CMS regulation.\textsuperscript{37}

Little information exists on malpractice liability and telehealth, discouraging cautious providers from delivering telehealth services.\textsuperscript{38}

Malpractice insurance carriers may not cover telehealth services to the same degree as in-person services, or across state lines.\textsuperscript{39} In some cases, liability policies “specify that coverage is only available in a specific jurisdiction.”\textsuperscript{40}

**ADMINISTRATIVE BARRIERS**

Incorporating telehealth services into existing clinical workflow places additional administrative responsibilities on providers that can be time-consuming and expensive to accommodate.

Telehealth must be fully integrated into the health care delivery system, not just tacked onto existing workflow. This requires a significant investment from providers.

Implementation of telehealth goes beyond just purchasing equipment; it requires reorganization
of workflow, retraining of the workforce, and bringing on qualified IT support and, in many cases, a dedicated telehealth coordinator.41

TECHNOLOGICAL BARRIERS

Inconsistency in the availability of high-speed broadband can make it challenging to implement telehealth programs in certain rural locations.42 Telehealth technology can be expensive to implement and difficult to use for both patients and providers. It also adds a new layer of complexity to handling electronic health data that can be cumbersome for providers.

Θ Reliable access to broadband connectivity is a fundamental requirement for expanded use of telehealth technology.

Hospitals, clinics, and physicians, as well as patients in rural areas or farmworkers in remote locations may lack adequate broadband access.43 The Federal Communications Commission (FCC) estimates that “53% of rural Americans (22 million people) lack access” to high-speed broadband.44

Θ Implementing and maintaining telehealth technology requires dedicated IT support and a significant investment to learning new technology from providers.45

In addition, low-income patients may not have access to devices such as tablets or smartphones that would enable them to take full advantage of telehealth services.

Θ Telehealth adds a new layer of risks and vulnerabilities to handling electronic health data.

The Health Insurance Portability and Accountability Act (HIPAA) protects personal health information (PHI).46 In some cases, state law may provide additional privacy protection.47 The same standards of privacy and security apply to telehealth services as services delivered in-person.48 Parties involved in providing telehealth services must determine whether they are subject to HIPAA and, if so, conduct a thorough assessment of potential security risks and vulnerabilities and comply with all HIPAA regulations and requirements.49

CULTURAL BARRIERS

Many patients and providers are reluctant to move away from more traditional models of care, fearing “a breakdown in the relationship between the health professional and the patient.”50 In addition, cultural and language barriers may persist if telehealth does not facilitate access to diverse providers and services. Without attention to responsible use of telehealth as a tool to enhance other strategies that aim for effective provision of care in rural areas, telehealth could exacerbate rather than mitigate disparities in care quality.

To enable full integration of telehealth into effective and holistic models of care for rural residents, policymakers should take the following steps to address these barriers:

TO ADDRESS LEGAL BARRIERS:

Θ Support legislation and regulation at the federal and state level that expands coverage for care provided via telehealth.

To realize the promise of telehealth for patients and providers, there must be widespread and consistent coverage of telehealth services.
The Bipartisan Budget Act of 2018, signed into law on February 9, 2018, contained several important provisions related to telehealth. Overall, these changes allow (but do not require) payers and providers to furnish more telehealth services to Medicare beneficiaries. For example, the law expanded the ability of Medicare Advantage providers to offer telehealth services to beneficiaries as supplemental benefits. It also allowed the use of expanded telehealth services by some Accountable Care Organizations (ACOs) participating in a risk-sharing ACO model. Restrictions and prohibitions on considering the patient’s home as an originating site were removed for certain services, such as clinical assessments for end-stage renal disease and stroke-related care. Significantly, a supplemental grant program for Community Health Centers established under the law included funds for integrating telehealth services into care. Under this provision, grants may be furnished to health centers “to implement evidence-based models for increasing access to high-quality primary care services,” such as “expanded use of telehealth and technology-enabled collaborative learning and capacity-building models.” Areas with a shortage of healthcare providers or disproportionately low access to health services will be given “special consideration” when awards are made.
Federal: Medicare
Providers cite restrictions on coverage of telehealth services within Medicare as an ongoing barrier to patient access and provider participation. Active demonstration projects allow for broader access on a temporary basis for a subset of the Medicare population, but even this does not fully meet the needs of Medicare beneficiaries for broad flexibility in location and type of service that will be covered.51

Changes in Medicare should:

- Allow a patient’s home to qualify as an eligible originating site.
- Permanently remove geographic restrictions on eligibility to qualify as originating sites.
- Broaden the categories of providers who may qualify as distant-site practitioners (e.g. to include Certified Diabetes Educators, Tobacco Treatment Specialists, and Community Health Workers, among others).
- Remove geographic restrictions on coverage of store-and-forward telehealth services.
- Cover remote patient monitoring.
- Authorize FQHCs to serve as distant sites as well as originating sites.52
- Eliminate the “face-to-face” requirement in the definition of a visit for an FQHC or CHC.53

The Bipartisan Budget Act of 2018 partially addressed some of these challenges within Medicare, but more can be done to increase access to telehealth services for all Medicare beneficiaries. A newly formed Telehealth Caucus in the House of Representatives will look for additional opportunities to improve access to telehealth, including remote patient monitoring.54

State: Medicaid Coverage and Reimbursement
State Medicaid programs are inconsistent in coverage and reimbursement policies for telehealth, with some instituting broad coverage of telehealth services administered by a range of providers and others imposing far more restrictive rules. To fully realize the promise of telehealth for patients and providers, states should:55

- Cover services provided by telehealth if they are covered in-person (require parity in coverage), and value them at the same rate as in-person services.
- Ensure parity in coverage of telehealth services between Fee-for-Service and Managed Care programs.
- Cover synchronous and asynchronous services, as well as remote patient monitoring.
- Remove patient setting as a condition for payment of telehealth or maintain broad definitions of originating and distant sites. Include a patient’s home and local schools as originating sites.
- Remove restrictions on the type of provider that can administer a Medicaid-covered telehealth service.
- Remove enhanced informed consent administrative requirements for patients to receive services via telehealth.
- Eliminate the “face-to-face” requirement in the definition of a visit for an FQHC or CHC.56
- Remove restrictions on billing for multiple visits in one day.
**State: Private Insurance and State Employee Health Plan Coverage and Reimbursement**

Coverage of telehealth services by private insurers and across state employee health plans is also inconsistent, although some states have taken legislative measures to ensure telehealth access. States should:

- Require private insurers and state employee health plans to cover services provided via telehealth if the services are covered in person, with no geographic restriction on patient settings and no provider restrictions. As of 2015, laws in 22 states require this type of broad coverage in private insurance.\(^{57}\)
- Require private insurers and state employee health plans to cover synchronous and asynchronous services, as well as remote patient monitoring and electronic provider consultations.

**State: Malpractice Liability and Cross-State Licensing**

To encourage provider participation in health care delivery via telehealth, states should:

- Alleviate liability concerns by following the example of Hawaii, which requires malpractice liability insurers to provide malpractice coverage for providers delivering telehealth services at the same rate as in-person services.\(^{58}\)
- Take steps to increase the number of physicians and other providers who can practice across state lines, by adopting cross-border reciprocity, interstate compacts\(^{59,60}\) or creating special telehealth licenses for out-of-state practitioners.\(^{61}\) In some cases, states may be able to access federal funds to help address cross-state licensure challenges.\(^{62}\)

**TO ADDRESS ADMINISTRATIVE BARRIERS:**

- **Increase funds for telehealth technology, technical assistance, and training.**

  Lack of funding for telehealth equipment and expertise is a major barrier to increased access to telehealth services for rural patients. To address this, the federal government has created several programs that work to increase telehealth capacity, primarily through providing grant funding to states. Many of these are administered by the Health Resources & Services Administration (HRSA), especially through the Federal Office of Rural Health Policy.\(^{63}\) Some notable programs include: **The Telehealth Network Grant Program**, aimed at medically underserved populations;\(^{64}\) **The Telehealth Resource Center Grant Program**, which supports regional and national Telehealth Resource Centers charged with assisting health care entities in implementing telehealth programs for medically underserved populations;\(^{65}\) **The Licensure Portability Grant Program**, which provides funds to state professional licensing boards that seek to remove relevant barriers to delivery of telehealth services;\(^{66}\) **The Rural Child Poverty Telehealth Network Grant Program**, which supports “established telehealth networks in the delivery of social services such as early childhood development counseling, food and nutrition support, and job counseling.”\(^{67}\) However, while these efforts are laudable, they are insufficient to meet the current level of need and have been targeted for funding cuts. Access to funding and technical assistance should be increased, especially for providers in rural areas. For example, increased funds are needed to:
  - Support learning networks, especially among FQHCs, RHCs, and MHCs and other smaller providers, as they seek to use telehealth to enhance effective care delivery in rural settings.\(^{68}\)
  - Support new partnerships and collaborations among rural providers to pool resources (share providers or technology personnel) to increase telehealth capacity.
Encourage alternative payment models to allow for hiring of technology personnel.

Providers report that introducing care delivery via telehealth requires hiring and/or training staff who are both familiar with the new technology and can dedicate time to ensuring that it works well for providers and patients. In a fee-for-service payment model, it can be challenging for delivering care via telehealth to be sustainable, especially during the introductory period when staff are learning new workflows and trouble-shooting. Increased adoption of alternative payment models (APMs) can facilitate the flexible use of staff time and other resources to integrate telehealth into the clinic workflow and maximize efficiency. However, in order to successfully support the use of telehealth to deliver more efficient care, rate-setting and payment methodologies must take into account the full range of effort and services that will be provided.

TO ADDRESS TECHNOLOGICAL BARRIERS:

Improve access to broadband in rural areas.

The federal government should maintain robust support for increasing access to broadband internet service in rural areas. The Connect America Fund, administered by Federal Communications Commission, aims to encourage internet providers to serve rural areas. The USDA has historically also provided some support for improving broadband access in rural areas through the Farm Bill Broadband Loans & Loan Guarantees program. However, applications to participate in these programs can be challenging to complete without assistance and the required cost-sharing level can be high, constituting a barrier to participation.
TO ADDRESS CULTURAL BARRIERS:

Ensure that telehealth technologies are used to enhance, not replace, a coordinated and holistic model of care.

To be truly effective for patients and sustainable for providers, care delivery via telehealth must be fully integrated into a system of care that already functions well for rural residents. This means that care is well-coordinated and tailored to the patient’s unique needs. For example, employing Community Health Workers (CHWs) as care extenders is an effective way to reach rural populations such as migrant farmworkers. Telehealth technology could improve the care provided to these individuals by having CHWs that patients already know and trust explain and help to operate remote monitoring technology or facilitate a remote visit, with the patient able to remain on the farm or ranch while communicating with a higher-level provider in the home clinic. To encourage thoughtful integration of telehealth into care systems, Congress or federal agencies could create initiatives that:

- Provide incentives to rural providers who use telehealth to enhance the capacity of those sites to deliver care in a patient’s first language.
- Fund demonstration projects or pilots that use CHWs or other mid-level providers who spend more time with patients to facilitate telehealth service delivery.
- Support efforts to house telehealth equipment and deliver care in mobile vehicles, such as vans that can travel to patients and are outfitted to take high-quality images that can be forwarded to relevant specialists, such as a dermatologist, for review.
- Provide funding to address interoperability and other challenges in electronic medical record systems so that care provided via telehealth is able to be seamlessly integrated into a patient’s existing medical record.

Support e-learning initiatives like Project ECHO to increase rural provider capacity.

Finally, technology should be used to the provider and patient’s maximum advantage by increasing the capacity of local providers to treat complex health conditions in the patient’s home community. Telehealth services provided to patients, especially services provided to them in their homes and other non-clinical sites, will be more effective when the providers who see them understand their context and communities and are only a short distance away for any necessary in-person follow-up. Therefore, all efforts to increase the capacity of rural providers to manage and treat complex conditions locally should be robustly supported. A prominent example of PCP capacity-building is Project ECHO, which is a collaborative medical education model that uses technology to increase the reach of academic medical center-level teaching expertise into rural communities. The federal government has already committed to rigorously exploring the implications of Project ECHO by passing the Expanding Capacity for Health Outcomes (ECHO) Act, which requires HHS to study the model and identify opportunities for adopting it or a similar model into HHS programs.
Conclusion

The promise of telehealth in rural American can only be fully realized if legal, administrative, technological, and cultural barriers are meaningfully addressed through policy change.

The federal government and states should pursue legislative and regulatory changes which:

- increase consistency in coverage and reimbursement for telehealth services;
- loosen restrictions on the circumstances under which telehealth services can be provided; and,
- incentivize providers to participate in delivering care to patients via a broad range of telehealth technologies.

Increased investment should be made in expanding access to broadband and in supporting rural health providers in obtaining the equipment and technical expertise necessary to administer care via telehealth.

Finally, all steps to increase access to health care via telehealth should be taken with an eye toward ensuring that the delivered care is effective, coordinated, and right for the patient.

The smart use of new technology in the health care field has the potential to dramatically improve both access to care and quality of care in rural communities across the nation. Implementing the recommendations in this brief will build a solid foundation for delivery of convenient, outcome-driven, cost-effective, and patient-tailored health care in rural settings for years to come.
EXECUTIVE SUMMARY ENDNOTES

2. The Center for Health Law & Policy Innovation of Harvard Law School acknowledges the Center for Connected Health Policy (CCHP) (www.cchpca.org) as a wonderful resource for information on telehealth, including data, barriers to uptake, and paths to integration. This brief draws heavily on CCHP’s resources. CHLPI also conducted key informant interviews and additional research into barriers to telehealth integration.
12. Forty-eight states and the District of Columbia provide Medicaid fee-for-service reimbursement for live video telehealth services, with only twelve states reimbursing for store-and-forward, and nineteen reimbursing for remote patient monitoring. Thirty-four states and the District of Columbia have laws governing private payment telehealth reimbursement, though not all of them mandate reimbursement. Only twenty-nine states have in place telehealth parity laws for private payers.
18. Specialty Care Safety Net Initiative: Integrating Telehealth in the Primary Care Setting, Ctr. for Connected Health Policy (July 2013).
19. Pub. L. 104-191; 42 U.S.C. § 1320d-S-d-6 (1996). HIPAA only applies to “covered entities,” which include health plans, health care providers, health care clearing houses, and business associates (defined by statute). Certain entities involved in telehealth services may not wish to be classified as a “business associate” and therefore required to enter into a business associate agreement in order to maintain HIPAA compliance. The Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009 clarified that a “conduit” is an entity that transports personally identifiable information, but does not access it except on a random or infrequent basis as necessary to perform the transformation services. Entities claiming this exception will be evaluated based on the fact-specific services provided and the extent to which the entity needs to access the PHI.45 CFR 164.502 (HIPAA Privacy Rule); Telehealth Resource Centers, HIPAA and Telehealth (2014), http://cchpca.org/sites/default/files/upload/HIPAA%20for%20TRCs%202014.pdf.
ENDNOTES

1 For example, the Arizona Health Care Cost Containment System defines telemedicine as “the practice of health care delivery, diagnosis, consultation and treatment and the transfer of medical data between the originating and distant sites through real time interactive audio, video or data communications that occur in the physical presence of the member,” and telehealth as “the use of telecommunications and information technology to provide access to health assessment, diagnosis, intervention, consultation, supervision and information across distance.” Under these definitions, telehealth is broader than telemedicine. See State Telehealth Laws and Medicaid Program Policies: A Comprehensive Scan of the 50 States and District of Columbia, CENTER FOR CONNECTED HEALTH POLICY at 6 (2016).

2 Medicare, Medicaid, and private payers in each state differ in their definition, use, and reimbursement of these applications. A Framework for Defining Telehealth, TELEHEALTH RES. CTR., http://cchpca.org/sites/default/files/upload/Telehealth%20Definintion%20Framework%20for%20TRCs_0.pdf.


5 Probst, J., Laditka, S., Wang, J., Johnson, A. (2006). Mode of Travel and Actual Distance Traveled For Medical or Dental Care by Rural and Urban Residents. Retrieved from: http://hr.sph.sc.edu/report/6-1%20Mode%20of%20Travel%20and%20Actual%20Distance%20Traveled.pdf

6 Neeraja Bhavaraju et al., Breaking the Barriers to Specialty Care: Brief 2 – Increasing Specialty Care Availability, Jun. 2016, at 4.

7 Neeraja Bhavaraju et al., Breaking the Barriers to Specialty Care: Brief 2 – Increasing Specialty Care Availability, Jun. 2016, at 4.


11 In states that have expanded Medicaid, all adults (with the exception of those do not have legal status and many immigrants) are eligible for Medicaid with incomes of up to 138% FPL. Federal subsidies to purchase private insurance on state health care marketplaces are available at 100% FPL and phase out at 400% FPL. In states that do not expand Medicaid, individuals who are not categorically eligible for Medicaid or income-eligible under the state’s rules but have incomes that fall under 100% FPL are generally unable to afford insurance.; Van R Newkirk II & Anthony Damico, The Affordable Care Act & Insurance Coverage in Rural Areas, Kaiser Family Foundation, May 2014, at 2, https://kaiserfamilyfoundation.files.wordpress.com/2014/05/8597-the-affordable-care-act-and-insurance-coverage-in-rural-areas1.pdf.


19 Children of Seasonal Migrant Workers, EARLY CHILD. MATTERS at 12–13 (November 2013).

20 California Institute for Rural Studies. Pathways to Farmworker Health Care Case Study No. 1: The East Coachella Valley, 2002


23 See e.g. the description of the Cuyahoga Health Access Partnership in Ohio. Neeraja Bhavaraju et al., Breaking the Barriers to Specialty Care: Brief 2 – Increasing Specialty Care Availability, Jun. 2016, at 15.

24 This possibility was explored by the MIVIA pilot project, which implemented a patient electronic personal health record that stored medical information, photo identification and emergency contact information, as well as links to other sources of health information. Cynthia Solomon, Using Technology to Improve Migrant Health Care Delivery, in HEALTH LITERACY, EHEALTH, AND COMMUNICATION: PUTTING THE CONSUMER FIRST: WORKSHOP SUMMARY, (Nat’l Acads. Press, 2009).


Medicaid reimbursement rates are low generally, deterring specialists from accepting Medicaid patients in the first place. Tele-Dermatology in Medi-Cal: Findings from the Field and Challenges for the Future, CTR. FOR CONNECTED HEALTH POLICY (2011).


BALK. & PROF. CODE § 2600. The Federation of State Medical Boards (FSMB) created an Interstate Medical Licensure Compact that provides a voluntary, expedited licensing process for physicians who wish to practice telehealth in multiple states. As of 2016, 18 states have enacted laws adopting the FSMB compact. Federation of State Medical Boards Applauds Enactment of Interstate Medical Licensure Compact in Pennsylvania, FED’N OF STATE MED. BDS. Press Release (Oct. 26, 2016).


Privileging-by-proxy allows a clinic (site where patient is located) to contract with another hospital or telemedicine entity (distant site) to provide telehealth services by relying on the credentialing done at the distant site. CMS 76 FR 25550 (July 5, 2011); Credentialing and Privileging, CTR. FOR CONNECTED HEALTH POLICY, http://cchpca.org/credentialing-and-privileging.


ing this exception will be evaluated based on the fact-specific services provided and the extent to which the entity needs to access the PHI.45 CFR 164.502 (HIPAA Privacy Rule); Telehealth Resource Centers, HIPAA and Telehealth (2014), http://cchpca.org/sites/default/files/uploaded/ HIPAA%20for%20TRCs%2014.pdf.


Eligible “originating sites” (location where the patient must present to be eligible to receive a service via telehealth) are generally limited to a provider office, hospital, Rural Health Clinic, Federally Qualified Health Center, hospital-based Renal Dialysis Center, Skilled Nursing Facility, or Community Mental Health Clinic that is located in (1) a county outside of a Metropolitan Statistical Area (MSA) or (2) a rural Health Professional Shortage Area (HPSA) located in a rural census tract. Demonstration projects expand the eligible originating site definition to include any site participating in a federal telemedicine demonstration project regardless of geographic location. Telehealth Services: Medicare Learning Network – ICN 901705, CTR. MEDICARE & MEDICAID SRVS., (Nov. 2016) at 2.

Currently, FQHCs are not authorized to serve as a distant site for telehealth consultations. This restricts an FQHC’s ability to hire and support a much-needed specialist on staff who could serve as an in-person and remote resource to the FQHC’s patients and as a resource to other clinic and care sites in the area. Federally Qualified Health Center: Medicare Learning Network – ICN 006397, CTR. MEDICARE & MEDICAID SRVS., (Jan. 2017) at 4.


Eight states: ME, IA, MS, OK, NM, NV, WA, DE, and DC have Medicaid programs that ensure the broadest range of telehealth services are covered. Latoya Thomas & Gary Capistrant, State Telemedicine Gaps Analysis: Coverage and Reimbursement, AMER. TELEMEDICINE ASS’N, Jan. 2016 at 10.


With a grant from the Health Resources and Services Administration, the Federation of State Medical Boards (FSMB) created an Interstate Medical Licensure Compact that provides a voluntary, expedited licensing process for physicians who wish to practice telehealth in multiple states. As of 2016, 18 states have enacted laws adopting the FSMB compact. Federation of State Medical Boards Applauds Enactment of Interstate Medical Licensure Compact in Pennsylvania, FED’N OF STATE MED. BDS. Press Release (Oct. 26, 2016).

For example, a multi-state physicians’ licensure compact could be modeled after the Nurses Licensure Compact, which would enable physicians to practice in multiple states without being required to obtain a license in each of those states. Enhanced Nurse Licensure Compact (eNCL) Implementation, NATIONAL COUNCIL OF STATE BOARDS OF NURSING https://www.ncsbn.org/enhanced-nlc-implementation.htm.

Wyoming, for example, offers a temporary, expedited telehealth license for physicians and physician assistants. Telehealth Policy Trends and Considerations, NAT’L CONFERENCE OF STATE LEGISLATURES (2015).


Telehealth Programs, HEALTH RESOURCES & SRVS. ADMIN., FED. OFFICE OF RURAL HEALTH POLICY, https://www.hrsa.gov/ruralhealth/telehealth/ (last viewed Jun. 6, 2017);

Two National Resource Centers include the Center for Connected Health Policy in CA and the National Telehealth Technology Assessment Resource Center in AK. In addition to these two resource centers which serve all states, there are 12 regional resource centers. Who is Your TRC? www.TELEHEALTHRESOURCERCENTER.ORG, (last viewed Jun. 6, 2017), http://www.telehealthresourcecenter.org/who-your-trc.


Interview with the Vista Community Clinic, Nov. 16, 2017, notes on file with author.

