



2024

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assessments, and discuss treatment options with patients. Patient visits can be augmented by home assessment devices that can provide additional data to facilitate decision making. This not only expedites the consultation process but also accommodates patients who might otherwise

Improving Access to Surgical Care with Telehealth

Access to surgical care is a critical determinant of patient outcomes and overall well-being. Unfortunately, disparities in access to surgical care persist, stemming from a complex web of socioeconomic, gender, race, and location-related factors. In this section, we will delve into these disparities and explore how telehealth serves as a powerful tool for enhancing access to surgical care, bridging gaps in healthcare delivery, and ultimately improving patient outcomes.

Disparities in Healthcare Access

Access to surgical care remains elusive for many individuals due to a multitude of factors, including socioeconomic status, gender, race, and geographical location.

1. Socioeconomic Disparities: Socioeconomic disparities play a significant role in limiting access to surgical care. Patients with lower income levels may face financial barriers that deter them from seeking surgical consultations and interventions. Costs associated with transportation, time off from work, and out-of-pocket expenses can be insurmountable for economically disadvantaged individuals. Additionally, patients lacking health insurance or those with high deductible plans may delay or forego surgical care due to concerns about the financial burden. These disparities in access can lead to delayed diagnoses and more advanced disease stages, negatively impacting patient outcomes.

2. Gender and Race Disparities: Gender and race disparities in healthcare access are well-documented and persist within surgical care. Studies have shown that women and racial minorities face disparities in surgical referral rates, access to specialty care, and timely interventions [9-12]. These disparities can result from a variety of factors, including implicit biases among healthcare providers, systemic inequities, and cultural differences in healthcare-seeking behaviors. Addressing these disparities is essential to ensuring that all patients have equal access to surgical care.

3. Location-Related Disparities: Geographical location is a key determinant of healthcare access. Rural and remote areas often lack the healthcare infrastructure necessary to provide specialized surgical care. Patients in these regions may face long travel distances, limited healthcare facilities, and a scarcity of surgical specialists. Moreover, even in non-remote locations, access to sub-specialty surgical care can be limited. Smaller healthcare facilities may lack the expertise and resources needed to offer specialized surgeries, requiring patients to travel to urban centers for treatment.

Inefficiencies in Traditional Surgical Care

Traditional models of surgical care inherently have inefficiencies that limit access for patients. These inefficiencies stem from the way clinics is structured, the challenges of handling appointment scheduling, and the need for in-person visits with surgeons.

1. Clinic Structure: Traditional surgical clinics often follow a rigid structure that may not align with the needs of all patients. In-person visits typically require patients to travel to the clinic, taking time off from work and facing potential transportation challenges. This structure can be particularly burdensome for patients with mobility issues or those living in remote areas.

2. Appointment Scheduling: Managing appointment schedules in surgical practices can be challenging. Overbooked clinics, long wait times, and last-

Telehealth as an Access Enhancer

Intuitively, one would assume that telehealth could worsen disparities, given the potential for technology deserts, such as rural areas that lack broadband, or the expense of communication technology ownership that may be difficult for some socioeconomic demographics. According to a 2021 Pew Research Survey, 97% of Americans own a cellphone of some kind, with 85% owning a smartphone, and 77% owning a desktop or laptop computer. In addition, in the US, there is apparent equity in technology access. Smartphone ownership is similar across White, Black/African American, and Hispanic/Latino adult demographics (85%, 83% and 85% respectively). Moreover, 80% of rural adult Americans own a smartphone, as do 76% of adult Americans who earn less than \$30,000 per year. However, access to broadband is less equitable. Approximately three-quarters of American adults have broadband internet service at home. White adult Americans are more likely to have access to broadband internet service (80%), compared to Black/African Americans (71%) and Hispanic/Latinos (65%). Similar inequities are seen comparing rural (63%) to Urban/Suburban (77-79%), and for adults who make < \$30,000 per year (56%) [13].

Additionally, there are significant disparities in digital literacy, resulting in improved healthcare access for those already competent at navigating the healthcare system, widening the gap for those who are not. Patients from different cultural backgrounds, ethnicities, socioeconomic backgrounds, and ages may have differing levels of digital literacy. For those without smartphones, empowering patients and providers to use phone calls in appropriate clinical settings (follow-up appointments, routine check-ins, etc.) can allow for patients to stay engaged in the healthcare system without losing them to technological or transportation barriers.

The COVID-19 pandemic generated strategies to overcome access barriers to healthcare while also limiting

mind that in-person visit may still be necessary to properly examine the patient as is relevant to the patient's case.

2. *Enhanced Access to Sub-specialty Surgical Care:* Telehealth facilitates access to sub-specialty surgical care that may be unavailable at smaller healthcare facilities. Patients no longer need to travel great distances to urban centers for specialized consultations. Telehealth connects them directly with sub-specialists, ensuring

Telehealth Reimbursement, Billing, and HIPAA Compliance for Surgeons

The successful integration of telehealth into surgical practice is contingent upon understanding and navigating the dynamic landscape of reimbursement, billing, and regulatory considerations. In this section, we will delve into these crucial aspects of telehealth, providing insights into credentialing, financial implications, and evolving regulatory issues.

Credentialing Surgeons for Telehealth

Telehealth credentialing is vital for ensuring that surgeons are qualified and competent to provide remote surgical consultations and interventions. This section explores the complexities of credentialing, encompassing inter-

Reimbursement and Surgeon Compensation: Reimbursement for telehealth services remains dynamic and evolving with variations in rates based on payer policies, geographic location, and the specific telehealth modality

Regulatory Landscape: Government Regulations Impacting Telehealth Reimbursement

The regulatory landscape surrounding telehealth reimbursement is subject to ongoing changes and government interventions at both the federal and state levels. Surgeons must remain vigilant in staying informed about the latest government regulations that directly affect the reimbursement landscape for telehealth in surgery.

Federal Regulations: The federal government has played a significant role in expanding telehealth reimbursement through legislation and policy changes. The Coronavirus Aid, Relief, and Economic Security (CARES) Act, along with other legislative efforts, has significantly broadened the scope of telehealth services covered under Medicare and Medicaid [16]. These changes have facilitated the reimbursement of telehealth services provided by surgeons and other healthcare providers. However, it is important to note that these changes may not be permanent, and ongoing advocacy efforts are essential to ensure the continued expansion of telehealth reimbursement. Surgeons can engage with professional organizations and associations to advocate for the retention and expansion of telehealth reimbursement policies that support surgical practice.

State Regulations: State governments hold significant authority over telehealth reimbursement, with each state having the autonomy to define its telehealth policies, regulations, and reimbursement standards. Surgeons must navigate the diverse state-level landscape to ensure compliance with specific requirements, licensing, and reimbursement policies. To address state-specific regulations, surgeons should actively engage with their respective state medical boards and healthcare associations. These organizations can provide guidance on state-specific telehealth policies, licensing requirements, and reimbursement guidelines. Staying informed about state-specific changes and advocating for telehealth-friendly policies at the state level can enhance reimbursement opportunities for surgeons.

Telehealth Parity Laws: Many states have enacted telehealth parity laws, which mandate that telehealth services be reimbursed at the same rate as in-person services for comparable medical conditions. These laws aim to eliminate disparities in reimbursement rates between telehealth and traditional in-person visits, ensuring that patients receive equitable access to care. Understanding the presence and nuances of telehealth parity laws in a surgeon's practice area is essential for maximizing reimbursement opportunities. Surgeons can leverage these laws to advocate for fair reimbursement policies and educate patients about their rights to equitable telehealth services.

In summary, the successful incorporation of telehealth into surgical practice hinges on a comprehensive understanding of credentialing, financial implications, and the regulatory landscape. Surgeons must proactively navigate inter-hospital and interstate credentialing challenges, advocate for equitable reimbursement, manage expenses, and stay informed about evolving government regulations. By addressing these considerations thoughtfully and strategically, surgeons can optimize the integration of telehealth services, ensuring the delivery of high-quality surgical care while maintaining financial sustainability in the evolving landscape of virtual healthcare.

Readiness for Telehealth in Surgical Practice

The adoption of telehealth in surgical practice is a transformative step that requires careful preparation and planning. Before embarking on this digital journey, surgeons must ensure they have the necessary infrastructure, policies, and strategies in place to provide high-quality telehealth services. This section, tailored for surgeons, provides an in-depth exploration of the readiness factors crucial to successful telehealth implementation.

Understanding Local Policies and Regulations

Surgeons contemplating the integration of telehealth into their practice must first gain a comprehensive understanding of the local policies and regulations that govern telehealth services. This understanding involves considering hospital, health system, and state-level perspectives.

Hospital and Health System Policies: Begin by consulting with the hospital or healthcare system where you practice. Different institutions may have varying policies and protocols related to telehealth. Understanding your organization's stance on telehealth is critical, as it can impact credentialing, reimbursement, and technological support.

Key questions to explore with your institution include:

- Does the hospital system have appropriate infrastructure to conduct telehealth visits?
- What are the hospital's policies on telehealth credentialing?
- Are there specific guidelines for billing and reimbursement?
- Does the institution have a preferred telehealth platform or software?
- Is the preferred telehealth platform secure and HIPAA compliant?
- How does the hospital handle patient consent and privacy concerns?

Understanding these considerations will lay the foundation for a seamless telehealth integration process within your healthcare institution.

State Regulations: In addition to institutional and federal policies, it is essential to familiarize yourself with state-level regulations governing telehealth. During the COVID-19 pandemic, some states temporarily relaxed or modified their licensing requirements to allow out-of-state providers to offer telehealth services. At the time of this writing, most state level emergency declarations have ended. State laws vary considerably in terms of licensure, reimbursement, and telehealth-specific requirements. Surgeons must comply with the rules and regulations of the state where the patient is located during a telehealth consultation. Telehealth licensing requirements and reciprocity agreements are mechanisms that allow healthcare providers to offer services across state lines or in areas where they might not be physically present. These requirements and agreements are designed to ensure that patients receive high-quality care while also allowing for the flexibility and convenience that telehealth can offer.

State-specific Telehealth Licenses: Some states offer a special telehealth license that allows out-of-state providers to deliver telehealth services to patients in that state. This license is separate from the full medical license and is specifically for telehealth services. States that offer these special licenses include Alabama, Delaware, Florida, Georgia, Minnesota, Nevada, New Mexico, Oklahoma, Tennessee, Texas, West Virginia. In all cases, a valid medical license from the state where the clinician is physically residing and performing services is required.

Interstate Medical Licensure Compact : The IMLC is an agreement among participating U.S. states to expedite the licensing process for physicians who want to practice in multiple states. This makes it easier for physicians to obtain licenses in multiple states, facilitating telehealth services across state lines [17].

Other key areas to understand at the state level include telehealth parity laws, reimbursement policies, and consent and privacy regulations.

Telehealth parity laws. Telehealth parity laws are designed to ensure that telehealth services are recognized and reimbursed similarly to traditional in-person services. The primary motivation behind these laws is to promote the adoption of telehealth by ensuring that providers, including surgeons, are fairly compensated for their expertise, regardless of the mode of delivery. There are two main facets to telehealth parity laws. The first, known as "payment parity," dictates that telehealth services should be reimbursed at rates comparable to in-person consultations. This ensures healthcare providers are not financially disadvantaged when offering telehealth options. The second aspect, "service or coverage parity," mandates that telehealth services cover the same range of medical services as in-person visits. While this ensures consistency in the services offered, it is important to note that it does not always guarantee identical reimbursement rates. As surgeons navigate the evolving telehealth landscape, understanding these parity laws is crucial for both patient care and practice economics.

Billing and reimbursement. Billing guidelines predominantly fall into three categories: Medicare, Medicaid, and commercial payers. In 2020, the Centers for Medicare & Medicaid Services (CMS) significantly expanded the scope of reimbursable telehealth services for Medicare beneficiaries. This expansion means that a diverse group of providers, ranging from physicians to licensed clinical social workers, can offer a broader spectrum of virtual services to Medicare patients. As of January 1, 2023, a new fee schedule for Medicare reimbursement was implemented by CMS [18]. However, it is essential to note that while some telehealth reimbursements under this schedule are extended, others are slated to conclude by the end of 2024. Additionally, individual states are continually revising telehealth reimbursement policies, affecting both commercial payor and CMS services. On the Medicaid front, coverage policies for telehealth services differ from state to state. In light of the COVID-19 public health crisis, numerous states expanded Medicaid's telehealth service coverage. By fall 2022, the Center for Connected Health Policy (CCHP) had released a comprehensive summary detailing state-specific telehealth laws and Medicaid policies [19]. As of this publication, all 50 states and the District of Columbia have established both coverage and payment parity laws for Medicaid. When it comes to private insurance, billing procedures for telehealth vary with each insurer. However, legislation in 43 states, the District of Columbia, and the Virgin Islands mandates private insurance providers to offer reimbursement for telemedicine services. Surgeons can refer to the CCHP Policy Finder Tool to stay updated on the latest telehealth regulations in their respective states.

Informed consent and privacy regulations. Informed consent is a pivotal aspect of telehealth and is mandated by the majority of states either through statutes, administrative codes, or Medicaid policies. For Medicare, informed consent is particularly tied to Communication Technology-Based Service (CTBS) codes, where patients must be apprised of any cost-sharing responsibilities [20]. While the specifics of informed consent laws may vary across states, adhering to the following prudent steps can ensure a smooth telehealth interaction:

- Clarifying Expectations: During the initial interaction, elucidate what the patient can anticipate from the telehealth visit, along with their rights.
- Patient Responsibilities: Engage with the patient regarding their obligations during online consultations, such as ensuring privacy by using headphones and securing a private space during the visit.
- Observer Disclosure: If the session is being observed, inform the patient and obtain their consent at the outset.
- Pre-Visit Documentation: Advise patients to complete any requisite forms prior to the visit and to have them ready for review.
- Consent Documentation: Ensure that informed consent and other compliance documentation are duly received and/or documented during check-in, inclusive of verbal consent. A telehealth consent form can be accessed from the Agency for Healthcare Research and Quality [20].

Navigating the intricate landscape of state regulations is crucial to ensure legal and ethical telehealth practice.

Developing a List of Indications and Diagnosis for Telehealth

Telehealth is a versatile tool, but not all medical conditions or patient problems are suitable for remote consultations. Surgeons must develop a clear list of indications and diagnoses that they are willing to address via telehealth. This list should be based on clinical appropriateness and safety considerations.

Common indications for telehealth in surgical practice may include:

- Surgical counseling and education.

- Preoperative evaluations and consultations.

- Postoperative follow-up visits.

- Non-emergent surgical evaluations.

Access to Patient Information

Having access to critical patient information is essential for telehealth consultations. Surgeons should ensure they can obtain:

- Imaging studies (X-rays, MRIs, CT scans).

- Laboratory values and test results.

- Previous medical history and records.

- Consulting reports from other healthcare providers.

- Review of imaging studies with the patient, which can be done via “sharing screen.”

- Discussing surgical care/plans with multiple patient family members/stakeholders who may not be able to attend in-person visits with the patient.

Having this information readily available allows surgeons to make informed decisions and provide comprehensive care during telehealth encounters. Surgeons should establish efficient processes for requesting and receiving patient records and test results in advance of telehealth visits.

Pre-Visit Considerations

Before telehealth encounters, certain patient related factors should be considered and addressed to optimize care delivery.

- Language Interpretation Services:** The presence of qualified interpreters during the telehealth encounter should be arranged prior to the visit. Interpreters can be in-person at either the patient or provider location or virtual.

- Special Considerations:** Patients who have visual impairment, auditory impairment, or physical limitations regarding interface with technology should be identified. A plan to address these issues should be created prior to the telehealth visit.

Intra-Visit Considerations

During telehealth encounters, certain technical factors can impact the quality of the interaction. Surgeons should consider:

- Lighting:** Adequate lighting is crucial to ensure that patients can see and interact with the surgeon clearly. Surgeons should position themselves in well-

healthcare institution and the requirements of the patient's insurance. At the initiation of telehealth services, follow up on collections should be planned, so appropriate changes to assure payment can be made.

Training the Next Generation of Surgeons to Effectively Use Telehealth

As telehealth continues to revolutionize healthcare delivery, it is imperative for surgical trainees and new providers to adapt to this evolving technology. This section of the primer focuses on strategies for incorporating and training surgical residents and other healthcare professionals on ways to utilize telehealth to achieve optimal surgeon-patient experience. We will explore formal training strategies to ensure effective patient interaction, empathy building, surgical procedure communication, and patient comprehension. Additionally, we will

patient for the telehealth visit. Trainees can focus on clinical assessments and patient interactions, knowing that the logistical aspects are managed.

2. *Staggered Visits*: Staggered visits involve trainees initially observing experienced providers in telehealth encounters and gradually taking on more responsibility. They start by shadowing, progress to conducting parts of the encounter, and eventually lead telehealth visits under supervision. This phased approach allows trainees to build confidence and competence.

3. *Conference Calls and Feedback*: Regular debriefing sessions and feedback are integral to telehealth training. After telehealth encounters, trainees can participate in conference calls with preceptors or educators to review cases, discuss patient interactions, and receive constructive feedback.

International, Global and Military Considerations in Telehealth for Advancing Surgical Care Worldwide

As we navigate the expansive terrain of telehealth's potential impact on surgical practice, we must recognize its global reach and the profound implications it holds for military healthcare systems. This section delves into the worldwide experience with telehealth, emphasizing the critical lessons learned from international initiatives and highlighting the transformative opportunities presented by telemedicine in both global and military contexts.

Lessons from International Telehealth:

International telehealth has provided valuable insights and lessons that can inform the future of healthcare delivery. These lessons have become especially important in the wake of the COVID-19 pandemic, which accelerated the adoption of telehealth abilities and technologies worldwide. The following are some key lessons learned:

Accessibility and Equity: In many countries, telehealth has emerged as a potent equalizer, addressing healthcare disparities exacerbated by vast rural regions and limited healthcare infrastructure. These international telehealth programs have valuable lessons to impart, particularly in regions where access to surgical care remains challenging. By studying these initiatives, U.S. surgeons can gain insights into bridging geographical gaps and enhancing patient access to surgical expertise, even in remote and underserved areas.

Cost-Efficiency: International telehealth programs have demonstrated remarkable cost savings by reducing the need for extensive travel and extended hospital stays. U.S. surgeons can adopt these cost-effective practices, potentially reducing healthcare expenditures for both patients and institutions without compromising care quality.

Healthcare Worker Training: International telehealth endeavors often involve training local healthcare providers to effectively utilize telehealth tools. U.S. surgeons can embrace this model to enhance the proficiency of their colleagues, including advanced practice providers and nursing staff, in leveraging telehealth to support surgical care.

Multidisciplinary Collaboration: International telehealth initiatives frequently involve diverse healthcare professionals, such as surgeons, specialists, nurses, and technicians, in collaborative patient care. U.S. surgeons can take inspiration from these initiatives to foster multidisciplinary collaboration, particularly in complex surgical cases where diverse expertise is indispensable.

Telehealth for Global Surgical Outreach:

Telehealth opens an array of opportunities for U.S. surgeons engaged in global surgery or providing care in underserved international communities:

Preoperative Workup: Telehealth facilitates comprehensive preoperative assessments, encompassing remote consultations, diagnostic test reviews, and surgical planning. Surgeons can collaborate with local healthcare providers in the patient's home country, ensuring optimal medical conditions before surgery, reducing complications, and enhancing surgical outcomes.

In-Country Surgical Missions: Telehealth serves as a valuable preparatory tool for surgeons embarking on surgical missions abroad. Through virtual consultations with local patients before their arrival, surgeons can ensure thorough case preparation, minimize delays, and maximize their in-country time for surgical procedures.

Postoperative Follow-Up: Post-surgery, telehealth streamlines postoperative monitoring and follow-up care. Surgeons can remotely evaluate surgical outcomes, manage complications, and provide guidance to local healthcare teams, ensuring continuous patient care even after the departure of the surgical team.

Global Partner Institutions: U.S. surgical organizations, like the American College of Surgeons (ACS), can establish collaborative partnerships with international institutions and organizations to drive the adoption of telehealth in global surgical outreach. These partnerships can create sustainable telehealth initiatives, benefiting U.S. surgeons and the communities they serve abroad.

peace and during the most challenging of circumstances. Surgeons are poised to lead the way in delivering quality care to patients across the globe, wherever they may be, as the global healthcare community continues to explore the possibilities of telehealth.

Comprehensive Telehealth Integration Checklist for Surgeons

Initial considerations:

Before starting a new telehealth program, or expanding an existing one, consider your answers to these questions:

1. What does your organization want to accomplish with telehealth? Which types of patients? What are your objectives?
2. Develop your telehealth workflow - identifying patients that are “telehealth appropriate,” create a flow document for reference, how will options be communicated? Develop a script for what is telehealth. Develop a patient reference document to send them ahead of a visit. Plan on training for staff to implement this workflow.
 1. Specifically: Identify which patients are in and out of scope for virtual care
 2. Determine whether patients will have a choice for a virtual or in-person visit depending on their appointment type and considerations.
 3. Review or develop processes for scheduling and communicating telehealth appointments.

Administrative:

Regulatory/Financial:

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Technology:

- a) **Secure Telehealth Platform:** Choose a secure telehealth platform that complies with HIPAA

This comprehensive checklist addresses the key elements for administration, surgeons, and patients, to ensure a successful integration of telehealth into surgical practices. It encompasses regulatory/financial, technology, and process considerations, helping to optimize the delivery of surgical care through telehealth while maintaining compliance and quality of care.

Furthermore, telehealth can facilitate international collaborations and knowledge sharing among surgeons and

deficiencies of prior approaches to using telehealth to enhance surgical care delivery include lack of multi-stakeholder engagement, assessment of shared values, consensus-based prioritization of key aims and objectives and a rigorous evaluation of the impact of telehealth on surgical healthcare outcomes. These deficiencies must be overcome to ensure wider and sustainable implementation of telehealth in surgery and realize its true potential as the next generation surgical healthcare delivery paradigm. Surgeons who embrace telehealth as an integral part of their practice stand to benefit not only in terms of patient care but also in terms of practice efficiency and financial sustainability. By harnessing the full potential of telehealth, surgeons can continue to advance the art and science of surgery while providing optimal care to their patients, regardless of geographical or other boundaries and access challenges.

Selected References and Resources

[1] What is telehealth? [https:// telehealth.hhs.gov/patients/understanding-telehealth](https://telehealth.hhs.gov/patients/understanding-telehealth). [accessed 6 October 2023].

[2] Woo, R. Barber, A. Cooke, D. Evans, H. Keswani, S. Kirby, J. Martin, A. Sawyer, M. Sharma, J. "Telemedicine in the COVID Era and Beyond: Overcoming Barriers to Improve Access to Care." ACS Bulletin. July 2022 | Volume 107, Number 7.

[3] Choi L, Riedinger C, Gardner K, Ziegler C, Brinson R, Sutton E. Gauging the Acceptance of Telemedicine in Postoperative Evaluation of Uncomplicated Laparoscopic Appendectomy and Cholecystectomy. *Telemed Rep.* 2023 Aug 24;4(1):259-265. doi: 10.1089/tmr.2023.0027. PMID: 37637377; PMCID: PMC10457610.

[4] Kulkarni A, Monu N, Ahsan MD, Orakuwue C, Ma X, McDougale A, Frey MK, Holcomb K, Cantillo E, Chapman-Davis E. Patient and provider perspectives on telemedicine use in an outpatient gynecologic clinic serving a diverse, low-income population. *J Telemed Telecare.* 2023 Oct 3:1357633X231197965. doi: 10.1177/1357633X231197965. Epub ahead of print. PMID: 37788366.

[5] Kumar D, Gordon N, Zamani C, Sheehan T, Martin E, Egorova O, Payne J, Kolevska T, Neeman E, Liu R. Cancer Patients' Preferences and Perceptions of Advantages and Disadvantages of Telehealth Visits During the COVID-19 Pandemic. *JCO Clin Cancer Inform.* 2023 Sep;7:e2300040. doi: 10.1200/CCI.23.00040. PMID: 37656925.

[6] King J, Poo SX, El-Sayed A, Kabir M, Hiner G, Olabinan O, Colwill M, Ayubi H; GLINT Research Network; Shakweh E, Kronsten VT, Kader R, Hayee B. Towards NHS Zero: greener gastroenterology and the impact of virtual clinics on carbon emissions and patient outcomes. A multisite, observational, cross-sectional study. *Frontline Gastroenterol.* 2022 Nov 15;104 Tw -39.772s2(.)4.6.6 (do)2.6 (s)4n[y]-2 (ubi) (10)-6.6 (a'4n[y]-2 (ubil)2.6 (.)4

- [12] Shao CC, McLeod MC, Gleason LT, Dos Santos Marques IC, Chu DI, Wallace EL, Fouad MN, Reddy S. Inequity in Telemedicine Use Among Patients with Cancer in the Deep South During the COVID-19 Pandemic. *Oncologist*. 2022 Jul 5;27(7):555-564. doi: 10.1093/oncolo/oyac046. PMID: 35348793; PMCID: PMC9255978.
- [13] Pew Research Center. (April 7, 2021). Mobile Fact Sheet. <https://www.pewresearch.org/internet/fact-sheet/mobile/>. [accessed 1 October 2023].
- [14] Chen M, Cooke DT. Impact of COVID-19 on Cancer-Related Behaviors Among Non-Metropolitan Minorities in Inland Northern California: Seeking Mitigation Strategies. UC Davis Comprehensive Cancer Center Support Grant, P30 - COVID-19 Supplement. National Institutes of Health.
- [15] "Early Impact of CMS Expansion Of Medicare Telehealth During COVID-19", Health Affairs Blog, July 15, 2020. DOI: 10.1377/hblog20200715.454789.
- [16] Coronavirus waivers & flexibilities. <https://www.cms.gov/coronavirus-waivers>. [accessed 6 October 2023].
- [17] Interstate Medical Licensure Compact. <https://www.imlcc.org/>. [accessed 6 October 2023].
- [18] Billing and coding Medicare Fee-for-Service claims. <https://telehealth.hhs.gov/providers/billing-and-reimbursement/billing-and-coding-medicare-fee-for-service-claims>. [accessed 6 October 2023].
- [19] Center for Connected Health Policy. (n.d.). Home. <https://www.cchpca.org/>. [accessed 30 September 2023].
- [20] Agency for Healthcare Research and Quality. (n.d.). Informed Consent. <https://www.ahrq.gov/health-literacy/improve/informed-consent/index.html> . [accessed 30 September 2023].
- [21] Mark J, Cooke DT, Suri A, Huynh TT, Yoon PS, Humphries MD. Patient and provider perspectives to utilization of telemedicine in surgery. *Digit Health*. 2023 Feb 14;9:20552076231152756. doi: 10.1177/20552076231152756. PMID: 36818156; PMCID: PMC9936391.
- [22] Punchak, M.A., Chauhan, D., Thach, B.J. *et al*. Application of telemedicine in global surgery partnerships between high-

Table 1: Telehealth Resources (updated 12.21.23)

Information	Agency	Website
Up to date information regarding Coronavirus waivers and flexibilities.	Centers for Medicare and Medicaid Services (CMS)	https://www.cms.gov/coronavirus-waivers .

Information on interstate