

# **Evaluating Telehealth Platforms for Outpatient Physical Therapy: A Guideline for Security, Compliance, Workflow and Clinical Alignment**

## **ABSTRACT**

## **INTRODUCTION**

### **Context**

Telehealth for outpatient physical therapy (PT) has expanded rapidly during and after the COVID-19 pandemic.<sup>1 2</sup> While telehealth has improved the access and continuity of care of patients for PT practitioners, this situation introduced new clinical, regulatory and technical challenges.<sup>3</sup> PT clinics and practitioners are required to comply with federal and state regulations such as Health Insurance Portability and Accountability Act of 1996 (HIPAA) and Health Information Technology for Economic and Clinical Health (HITECH) Act.<sup>4 5</sup> PT clinics and practitioners also need to consider professional guidelines from the American Physical Therapy Association (APTA) and the Federation of State Boards of Physical Therapy (FSBPT) in selecting telehealth platforms.<sup>6 7</sup>

Despite these regulations and guidelines, systematic review of current literature shows that there is no holistic PT-specific method for evaluating telehealth platforms and no evidence-based side-by-side comparison of commercial telehealth platforms to facilitate evaluation and selection of these platforms. This underscores the need for a Telehealth Evaluation Guideline that integrates compliance, cybersecurity, workflow, and clinical alignment in order to integrate telehealth technology responsibly into modern PT patient care.

### **Literature Review**

A systematic review of existing literature was conducted to determine whether a holistic, systematic, and evidence-based evaluation guideline is needed. This section provides a summary of the literature and highlights the key findings from that review.

The most significant growth of telehealth started during the COVID-19 pandemic wherein the healthcare industry was forced to shift to remote care<sup>1</sup>. Studies show that outpatient physical therapy practices similarly have adopted telehealth in their practice<sup>2</sup>. This move towards telehealth allowed for the continuity of care during the quarantines and shutdowns during this period in time<sup>3</sup>. It was during this period in the pandemic that the Office of Civil Rights (OCR) announced an Enforcement Discretion policy which allowed lenient enforcement of HIPAA

penalties paving the way for platforms like FaceTime, Facebook Messenger, Google Hangouts, Zoom, or Skype to be used widely in telehealth practices <sup>8</sup>. The goal of this policy by the OCR is to be able to maintain access to care during the pandemic emergency <sup>8</sup>.

The flexibility given during this time encouraged a quick adoption of this technology but led to compliance requirements becoming less strict <sup>9</sup>. But when the enforcement discretion policy expired in 2023, PT clinics and practitioners were once again obligated to ensure they maintain full compliance with HIPAA and the HITECH Act. While many vendors market “HIPAA compliant” subscription plans <sup>3</sup> the U.S. Department of Health and Human Services (HHS) Office for Civil Rights (OCR) explicitly warns that no product or vendor is “HIPAA-certified” or endorsed by the government.<sup>10</sup> Compliance still remains the responsibility of the covered entity (e.g. PT Clinics or practitioners) to implement and validate if these safeguards are in place. <sup>11</sup> In this context, practitioners must not only evaluate telehealth platforms for regulatory compliance but also assess the clinical suitability, workflow integration and overall alignment for their practice.

APTA and FSBPT have published several resources focusing on telehealth for PT practitioners. A review of these resources such as the APTA Telehealth Certificate Series, the APTA Telehealth Guidelines and FSBPT Telehealth guidelines emphasizes clinical principles rather than providing an actual practical methodology to assess and select the platform technology..<sup>6 12 13</sup> Nonetheless, resources from APTA and FSBPT are the key guiding principles for regulatory, administrative and clinical alignment that is essential in building a practical evaluation guideline. This study builds on and improves on this current body of knowledge by integrating compliance, cyber security, administrative/ workflow and clinical alignment in one unified evaluation guideline.

The APTA Health Policy Telehealth Platform Matrix (2021) created as a guide for practitioners is closely aligned to the general objectives of this study. <sup>14</sup> This also includes a side-by-side comparison of telehealth products. But it was noted that aside from being dated, the matrix lists only 21 general platform features with limited compliance and cybersecurity indicators. In fact, the matrix only includes “HIPAA Compliance Storage” which is far from the minimum requirement of HIPAA and HITECH.

Broader telehealth evaluation models such as Model for Assessment of Telemedicine applications (MAST) by Kidholm et al. (2012) and RE-AIM (Research, Effectiveness, Adoption, Implementation, Maintenance) by Gloschow et al. (2019) focus on telehealth outcomes and adoption but is not holistic as it lacks integration of compliance, cybersecurity, workflow, and clinical criteria specific to outpatient PT practice. <sup>15 16</sup> This study does leverage concepts from these 2 models particularly for administrative, workflow and clinical alignment.

Cottrell et al. in a 2020 study on telehealth for musculoskeletal physiotherapy highlights two telehealth models: I2I-4-Telehealth and the Knowledge-to-Action (KTA) models.<sup>17</sup> A review of these 2 models show that these are strategic approaches to facilitate telehealth adoption and implementation across an organization rather than an evaluation criteria for technology platforms.

Lamber et al. in a 2017 study illustrates how an app with remote support achieves better adherence to home exercise programs than paper handouts in people with musculoskeletal conditions.<sup>18</sup> Though this provides only a limited perspective, it does provide some insights on clinical alignment requirements that can be incorporated into a holistic evaluation guideline such as Home Exercise Program (HEP), exercise tracking and adherence.

Khoja et al. in a 2013 study on the implementation and evaluation of telehealth tools and technologies provides a discussion on technology evaluation.<sup>19</sup> The study points to technology evaluation outcomes such as appropriateness, relevance, use, safety, and effectiveness of the technology. Though useful as high level technology governance requirements it is not adequate for a technology platform-specific evaluation.

Brennan et al. in a 2010 study highlights key principles for telehealth evaluation such as administrative, technical, clinical and ethical concepts.<sup>20</sup> This provides a good direction for telehealth guidance but lacks the granularity to become an actual practical evaluation criteria for telehealth platform selection. The principles highlighted by the study is a common theme though seen in various APTA and FSBPT telehealth resources and is also leveraged and expounded upon by this study as well.

HIPAA and HITECH provide the core requirements for compliance but are not geared for operational decision-making at the clinic level particularly for selecting commercial telehealth platforms.<sup>4 5</sup> In turn, the National Institute of Standards and Technology (NIST) SP800 series and ISO 27001/27002 are core standards for cyber security but do not provide any discipline-specific or workflow-level guidance to outpatient PT clinics for assessing telehealth platforms.<sup>21 22 23</sup>

A review of documentation of the commercial telehealth market shows a wide range of platforms targeting a broad range of health professionals. Part of the study includes reviewing all of the feature sets of several sampled platforms. These platforms include large established platforms such as Zoom for Healthcare, Doxy.Me, and Google Workspace to more niche-oriented ones like JaneApp, Theraplatform, and Physitrack.<sup>24 25 26 27 28 29</sup> As will become apparent in this study, the platforms differ in design intent and market focus.

As part of the literature review, a summary timeline that reflects key events that influenced telehealth policy and compliance leading up to the present case report was also conducted and enumerated below.

- 1996 - HIPAA was enacted and established foundational US health privacy and security requirements. <sup>4</sup>
- 2009 - HITECH ACT strengthened HIPAA with stricter privacy and security rules with expanded breach notification requirements. <sup>5</sup>
- 2020 - The COVID 19 pandemic initiated and drove mass telehealth adoption and outpatient PT rapidly adopted telehealth due to in-person visit shut down. <sup>2</sup>
- 2020 - OCR Enforcement Discretion allowed for relaxed compliance requirements for HIPAA compliance for telehealth without penalty. <sup>8</sup>
- 2020 - FSBPT released Telehealth in Physical Therapy policy guidelines and established professional standards for PT telehealth practice. <sup>7</sup>
- 2021 - APTA launched their Telehealth Certificate Program and provided structured training for PTs with core + domain elective modules. <sup>12</sup>
- 2023 - The OCR Discretion ended and clinics and practitioners are once again fully liable for HIPAA and HITECH compliance for telehealth use and delivery. <sup>30</sup>
- 2025 - This case report is presented two years post expiration of the enforcement discretion with outpatient clinics and practitioners continuing to refine telehealth adoption and developing a structure evaluation guideline for telehealth technology.

## **Purpose of the Study**

The purpose of this case report is to develop a structured telehealth evaluation guideline and apply it to selected commercial telehealth platforms. This evaluation guideline will be organized based on the following four domains:

- *Compliance.* This will incorporate a review of HIPAA, HITECH, State Consent Laws and APTA Ethical guidelines among others <sup>4 5 31 32</sup>.
- *Security.* This will be grounded in industry standards cyber security frameworks such as NIST SP800-30 and ISO 27001 <sup>33 22</sup>.
- *Administration/Workflow.* This will incorporate various administrative considerations such as record keeping, scheduling and patient documentation.
- *Clinical Fit.* This will include elements that will facilitate patient care such as video quality, caregiver participation, secure exercise sharing, among others.

The evaluation guideline and subsequent application to current telehealth platforms aims to provide PT clinics and practitioners an objective and systematic approach in assessing the suitability, safety and effectiveness of telehealth platforms.

## **PROBLEM OF PRACTICE AND CONTEXT**

### **Setting**

The focus of this study is directed to outpatient physical therapy practices within the United States (US) ranging from solo practices to large multi-site organizations. Outpatient PT clinics and practitioners are considered covered entities under HIPAA and are therefore legally obligated to ensure the privacy of patients and security of protected health information (PHI) in their telehealth practices <sup>34</sup>.

Though this study applies to all sizes of practices, it should be noted that small/rural and even medium size practices, which often operate with limited administrative and technological resources would benefit more from this study <sup>35</sup>. These practices may lack dedicated technology, legal and compliance support making the evaluation and adoption of compliance, secure and effective telehealth solutions more difficult <sup>35</sup>. Conversely, larger organizations which have established telehealth practices will find this study relevant as best practice points to continual evaluation to maintain the success of their telehealth practice <sup>36</sup>. Outpatient PT clinics serve a broad range of patients through telehealth reflecting the versatility of digital PT practice <sup>37</sup>. The APTA Telehealth Certificate Program further demonstrates this depth of scope by offering specialized telehealth training electives covering orthopedic, neurologic, geriatric, pediatric, cardiopulmonary, pelvic health, vestibular and even performance arts / dance <sup>12</sup>.

As there are no government certification or approvals for telehealth software vendors, practitioners must independently evaluate telehealth platforms for compliance and cyber security suitability <sup>10</sup>. Aside from these, practitioners also need to align these requirements with specialty-specific technical features needed in their clinical practice. Though there are multiple telehealth platforms available in the market, these have not been systematically compared using a consistent evaluation guideline.

### **The Problem**

On May 11 2023, the Enforcement Discretion provided by the OCR officially expired <sup>30</sup> which means that all practitioners using telehealth services once again were fully required to comply to HIPAA's Privacy, Security, and Breach Notification Rules as well as other related regulations such as the Health Information Technology for Economic and Clinical Health Act (HITECH) <sup>30 4</sup> <sup>5</sup>. This expiry for the policy means that there will be no more leniency for the use of non-secure platforms and PT clinics and practitioners, being covered entities, are now responsible for proving compliance <sup>30</sup>.

While vendors may market “HIPAA Compliant” subscription plans for their products, it is important to note that no product can be formally labeled as “HIPAA-certified” as HIPAA has not provisioned any certification process <sup>11</sup>. Vendors cannot guarantee full compliance and the liability for a breach remains with the PT clinic and practitioner as the covered entity <sup>10</sup>. Thus PT clinics and practitioners themselves must ensure administrative safeguards such as Business Associate Agreements (BAA) and technical safeguards such as encryption, authentication, among others, are enforced <sup>10</sup>.

To support adoption of Telehealth in Physical Therapy, there are available resources for PT practitioners in the implementation of Telehealth. These include FSBPT Telehealth in Physical Therapy Policy Guidelines, the APTA Telehealth Certificate Series and broader framework such as the Model for Assessment of Telemedicine Application (MAST) and Research, Effectiveness, Adoption, Implementation, Maintenance (RE-AIM) <sup>7 12 15 16</sup>. A review of these show that while these resources provide general considerations particularly focusing on clinical adoption, quality, and the theoretical underpinnings for successful implementation, they offer limited guidance on the technological domains of telehealth (e.g., platform security, compliance, workflow integration, and specialty-specific clinical functionality in PT practice).

Systematic studies on the adoption of telehealth shows that telehealth practitioners often choose platforms primarily based on cost and ease of use (specially for technically challenged staff) <sup>38</sup>. On the security and compliance aspect of telehealth, these same technically challenged staff may rely on vendor claims of “HIPAA compliance” even though the OCR makes clear that no product is formally HIPAA certified and that compliance responsibility lies with the covered entity <sup>10</sup>. These decisions made by prioritizing cost, technical ease of use, or vendor claims in obtaining a telehealth platform made without objective evaluation guidelines can lead to patients' data being vulnerable to privacy and security lapses and can lower the quality of care.

## **Justification**

This study is relevant for physical therapy because it provides a practical decision-making guideline to help clinics and practitioners to evaluate and select platforms that meet security and compliance needs while maintaining alignment with their workflow and clinical needs. It is the authors hope that the results of this study might contribute meaningfully to support the continued responsible adoption of virtual physical therapy care and help support the development of this medium as a viable source of practice for physical therapists in the future.

## LITERATURE SYNTHESIS AND FRAMEWORK DEVELOPMENT

### Research Foundations for Framework Development

The *Technical Platform Evaluation Guideline* developed in this study is based on a comprehensive review of existing literature including regulatory frameworks, cyber security guidelines and professional standards. The primary compliance references to support this framework are the HIPAA and the HITECH Act of 2009.<sup>39 40</sup> HIPAA establishes mandatory safeguards across the administrative, physical and technical domains in order to protect electronic Protected Health Information (ePHI).<sup>4 41 42 43</sup> The HITECH Act in turn strengthened the provisions from HIPAA by introducing business associate liability, breach notification timelines and penalties for non-compliance.<sup>5</sup> Together both HIPAA and HITECH form the foundation for governing telehealth data protection and compliance.

To operationalize the HIPAA and HITECH laws, the National Institute of Standards and Technology (NIST) in the United States offers widely adopted security frameworks providing detailed technical implementation guidance. NIST SP800-53 (Revision 5) and NIST SP 800-66 (Revision 2) provide comprehensive references for implementing the HIPAA security controls ranging from access controls, incident response, encryption and risk assessments to protect ePHI.<sup>44 45</sup> At an international level, ISO 27001 and ISO 27002 provides an established security management framework and comprehensive controls guidance for information security.<sup>22 23</sup> Together these standards provide a benchmark for data protection and risk management and are frequently adopted by telehealth vendors to demonstrate security maturity and alignment with HIPAA and HITECH requirements.<sup>46 47</sup>

Within the PT profession, the APTA and the FSBPT have published resources that deal with the ethical, clinical and regulatory dimensions of telehealth.<sup>6 7</sup> The APTA Telehealth Guidelines as well as the FSBPT Telehealth in Physical Therapy Guidelines provides principles related to patient consent, licensure verification, jurisdictional considerations, and regulatory guidance.<sup>12</sup> Both APTA and FSBPT emphasize that physical therapists must maintain the same standards of care while ensuring compliance with federal and state laws such as HIPAA and HITECH in the practice of telehealth.<sup>48 49</sup> APTA has also published a Telehealth Platform Matrix (2021) that catalogs common platform features in several telehealth platform vendors which this study ultimately improves upon.<sup>14</sup> Additionally, a systematic review of literature revealed 2 relevant telehealth frameworks: Model for Assessment of Telemedicine (MAST) and RE-AIM framework (Reach, Effectiveness, Adoption, Implementation, Maintenance). Though these focus on health outcomes and implementation perspectives, the concepts and principles presented are relevant from an administrative and clinical perspective.<sup>15 16</sup>

## Framework and Evaluation Guideline Development

The *Telehealth Platform Evaluation Guideline* that resulted from the systematic review of existing literature, frameworks and standards is structured into four core domains namely Compliance, Cyber Security, Workflow / Administrative and Clinical Alignment. Each domain has 10-12 indicators that are evidence-based, measurable, and linked to domain requirements. The complete list of domains, indicators, descriptions and source / references is presented in *Appendix A: Evaluation Guidelines*, while *Figure 1* provides an illustration of the framework structure.

Compliance Indicators	Cyber Security Indicators	Workflow / Administrative Indicators	Clinical Fit Indicators
<ul style="list-style-type: none"> <li>• Business Associate Agreement (BAA)</li> <li>• HIPAA / HITECH Privacy Policy References</li> <li>• Retention Policy</li> <li>• Meeting History and Audit Logs</li> <li>• Breach Management Procedures</li> <li>• Consent and Authorization Workflow</li> <li>• Complaint or Grievance Procedure Disclosure / Contact</li> <li>• Subcontractor / Subprocessor Compliance</li> <li>• Privacy and Cyber Security Training and Awareness</li> <li>• Data Use and De-Identification Policy</li> <li>• Risk Assessment</li> </ul>	<ul style="list-style-type: none"> <li>• Role Based Access</li> <li>• Multi Factor Authentication (MFA)</li> <li>• Automatic Logoff and Idle Timeout</li> <li>• Encryption-in-Transit</li> <li>• Encryption-at-Rest</li> <li>• Data Integrity Controls</li> <li>• Third Party Security Attestation and Testing</li> <li>• Incident Response Procedures</li> <li>• Backup and Disaster Recovery Controls</li> <li>• Network Security Controls</li> <li>• Security Policy and Security Contact Availability</li> <li>• Patch Management Procedures</li> <li>• Cyber Insurance Policy</li> </ul>	<ul style="list-style-type: none"> <li>• Scheduling and Automated Reminders</li> <li>• Integration with EMR Software</li> <li>• Client Billing / Insurance Verification</li> <li>• Secure Messaging / Chat Functionality</li> <li>• Uptime and Availability SLAs</li> <li>• Training Resources (Staff &amp; Patient)</li> <li>• Licensure and Jurisdiction Verification</li> <li>• IT and Helpdesk Support</li> <li>• Multi-device Access</li> <li>• Delegated Access</li> <li>• Patient Queueing</li> <li>• Documentation Capability</li> </ul>	<ul style="list-style-type: none"> <li>• HD Quality Video</li> <li>• Latency and Bandwidth Monitoring</li> <li>• Multi-camera / Multiple View</li> <li>• Remote Therapeutic Monitoring</li> <li>• Session Recordings</li> <li>• Home Exercise Program (HEP) Library</li> <li>• Video and Annotation Tools</li> <li>• Outcome Dashboard / PROMs Integration</li> <li>• Multi-Session Support</li> <li>• Safety and Symptom Tracking</li> <li>• Accessibility and Inclusive Design</li> <li>• Exercise Adherence Tracking / Check-Ins</li> </ul>

The key domain components and references that was used for this guideline is further detailed below for each individual domain:

*Compliance Domain.* The purpose of the compliance domains is to determine whether a platform's policies and documentation aligns with legal and regulatory requirements such as HIPAA and HITECH. This is to ensure the lawful protection of ePHI aligning in particular with HIPAA Subpart C (security rule), Subpart E (privacy rule), and HITECH Sec. 13402 (breach notification).<sup>4 50</sup> The indicators in this domain checks whether the platform provides proper legal agreements such as a Business Associate Agreement (BAA), a clear privacy policy referencing HIPAA/HITECH, and includes defined breach notification and consent procedures. Other elements assessed include data retention policies, limitations on ePHI use for marketing or analytics, identification of a compliance contact, and privacy public disclosures. Platforms that score high in the Compliance domain would indicate a documented commitment to privacy and legal accountability. The full set of Compliance Domain indicators with their descriptions and sources can be referenced in *Appendix A: Evaluation Guidelines*.



*Security Domain.* The purpose of the compliance domain is to assess if technical and operational security controls are in place that protect data confidentiality, integrity and availability in the telehealth platform. The evaluation guideline is based on industry standard frameworks such as NIST SP 800-53, NIST SP 800-66 ISO 2700, and ISO 27002.<sup>22 23 44 45</sup> The indicators under this domain cover areas such as access control, audit logging, encryption, data integrity, and third-party security audits or certifications. Other components include backup and disaster recovery planning, and security governance oversight. Platforms that score high in the Security domain would indicate that the platform provides features that will protect patient data from cyber threats. The full set of Security Domain indicators with their descriptions and sources can be referenced in *Appendix A: Evaluation Guidelines*.

*Workflow and Administrative Domain.* The purpose of the Workflow and Administrative domain is to evaluate how a telehealth platform would indicate to clinic and private practice operations which would be important for efficiency, documentation and administrative tasks. The guideline for this domain is based on a systematic review of the APTA Telehealth Guidance, APTA Telehealth Certificate Series and other studies such as the RE-AIM and MAST<sup>7 12 16 51</sup>. The indicators under this domain assess aspects such as integration with EMRs or practice management systems, automated scheduling and reminders, documentation tools, multi-provider coordination, and service levels. Other elements include delegated user access delegation, multi-device reliability, and training resources for clinic staff. Platforms that score high in the Workflow and Administrative domain would indicate a potential for reduced administrative burden and support timely documentation required for billing and continuity of care. The full set of Workflow/Administrative Domain indicators with their descriptions and sources can be referenced in *Appendix A: Evaluation Guidelines*.

*Clinical Alignment Domain.* The purpose of the Clinical Alignment Domain is to determine how well the platform would support the clinical requirements unique to Physical Therapy. This includes but not limited to technologies supporting accurate movement observations, exercise instructions and patient safety. The guideline for this domain is based on a systematic review of APTA Telehealth Matrix, APTA Telehealth Certificate Series, FSBPT Telehealth Guidelines, among others<sup>12 14 13</sup>. The indicators under this domain include measures of video and audio quality, camera flexibility, group participation, exercise libraries, annotation tools, and session recording or playback. It also considers accessibility features, safety functions, and integration with clinical outcome measures. Though functional fit is sometimes a case-to-case basis (e.g. there are platforms more suited for certain conditions), in general, platforms that score high in the Clinical Alignment domain would indicate a good potential for overall functional fit in Physical Therapy practice. The full set of Clinical Alignment Domain indicators with their descriptions and sources can be referenced in *Appendix A: Evaluation Guidelines*.

Each indicator was written as an observable criterion that a practitioner can locate in publicly available vendor documentation. The indicators are written in short, action-oriented phrasing using neutral language. Assessment of the indicators will rely on the following scoring rubric:

- *2 - Fully Present:* There is explicit and verifiable evidence of the feature in documentation.
- *1 - Partially Present:* The existence of the feature is implied or details are incomplete.
- *0 - Not Present / No Data Available.* The feature is not present or cannot be found in the documentation.

Weightings for each domain and indicator will be kept equal to highlight the interdependence of compliance, security, workflow and clinical fit. As part of the application of the framework, pilot testing will be conducted on 7 commercial telehealth platforms to test the clarity and scoring consistency of the evaluation guidelines. The implementation of the pilot testing will be expounded as part of the *Administrative Plan and Framework Application*.

### **Gaps in Existing Research**

The review of existing research shows that although telehealth principles and frameworks exist they often focus on isolated aspects of compliance, security, administrative and clinical requirements rather than focusing on a holistic structure for evaluation. Below expounds on the gaps identified in current research and provides a contrast to what this study ultimately provides to PT clinics and practitioners:

*Limited practical guidance for telehealth platform selection.* Various regulations and frameworks like HIPAA, HITECH, NIST, and ISO 27001/ISO27002 only define privacy and security requirements. APTA and FSBPT resources focus more on key principles for telehealth practice. These sources do not provide a practical, practitioner-level guideline and methodology on how to evaluate and ultimately select a telehealth platform that is best suited for their practice. In contrast, this study provides specific indicators, supporting references, a scoring rubric, and selection/decision guidance for selecting a telehealth platform.

*Lack of a holistic end-to-end PT-specific evaluation guideline.* Existing telehealth evaluation models such as MAST or RE-AIM focus on health outcomes, adoption and implementation. These do not address the combination of compliance, cyber security, workflow/administrative and clinical requirements of outpatient physical therapy practice. These also do not provide a detailed side-by-side comparison of current commercial telehealth platforms. In contrast, this study not only provides an evaluation guideline but also applies this guideline to current telehealth platforms to demonstrate its validity, practicality, and reproducibility.

*Absence of a domain-based evaluation structure.* The APTA Health Policy Telehealth Platform Matrix is probably the closest resource that aligns with the goals of this study. This matrix lists only 21 general platform features without classification by domain and limited compliance and cybersecurity indicators. In contrast, the framework developed in this study organizes 48

measurable indicators across four domains: Compliance, Cybersecurity, Workflow/Administrative Integration, and Clinical Alignment.

*Absence of a telehealth platform topology.* Existing literature lacks a structured classification of telehealth based on design intent and capabilities. In all of the literature reviewed, platforms if discussed are discussed generically without differentiating between simple consumer grade tools, enterprise platforms and discipline-specific products. This lack of classification topology makes it more difficult to do an “apples-to-apples” comparison and analysis of various platforms. In contrast, this study defines potential topologies of telehealth platforms to assist in more informed and targeted decision making.

*Limited discussion on platform integration and interoperability.* Current literature provides minimal discussion regarding the integration and interoperability of telehealth platforms with each other platforms or on-premise systems. In contrast, one of the key takeaways of this study is the feasibility of integration and how this integration can ultimately benefit practitioners.

## **ADMINISTRATIVE PLAN AND FRAMEWORK APPLICATION**

Following the development of the *Telehealth Platform Evaluation Guideline*, a pilot assessment of several telehealth platforms was conducted. This is to be able to demonstrate the guidelines feasibility and usability for practitioners to do independent systematic vendor evaluations under the context of an outpatient PT scenario. The researcher, under the guidance of an academic advisor, performed the entire pilot implementation independently using a personal computer, standard internet connectivity, and publicly available vendor documentation, third-party attestations, and various policy resources. No staff, collaborators or external reviewers participated in the evaluation. This approach was intentional in order to replicate how an individual practitioner would be able to apply the guideline in real practice. The implementation followed the phases below:

*Phase 1 - Platform Selection.* The pilot application involved selecting telehealth platforms to test the applicability of the telehealth evaluation guidelines. An initial sampling of platforms were collated based on various resources such as APTA telehealth platform matrix, APTA Telehealth Certificate Series and mentions in various resource journals. Afterwards, a final list was drafted based on the following criteria:

1. General video conferencing tools mentioned and initially allowed under the HHS Office for Civil Rights (OCR) Notification of Enforcement Discretion during the COVID-19 pandemic<sup>52</sup>. Platforms specifically mentioned by the OCR included Facetime and Google Hangouts which have been selected as part of the pilot evaluation. These were included to show the gap between pandemic era vs current telehealth requirements.

2. General purpose telehealth tools were also included to represent the class of cross-industry video conferencing platforms. These platforms were not originally designed exclusively for healthcare but offer configurations or enterprise plans that support requirements frequently used by health workers. The following were selected: Zoom for Healthcare and Doxy.me.<sup>53 54 55</sup>
3. In addition to general purpose telehealth tools, several PT or “Therapy” specific platforms were selected for the evaluation. The following platforms were selected for the pilot evaluation: JaneApp; Physitrack; and TheraPlatform.<sup>27 29 56</sup>

The platforms were selected in order to represent the functional diversity of tools available to PT practitioners. These range from standalone video conferencing software to niche software specifically catering PT practitioners.

*Phase 2 – Document Collection and Scoring.* The Document Collection focused exclusively on publicly available vendor and product materials. These included (but not limited to) privacy policies, business associate agreement statements, whitepapers, feature lists, brochures and 3rd party attestations. These materials are the same exact information accessible to typical PT or healthcare practitioners. The data collected was used as the basis for Indicator Scoring using the *Telehealth Evaluation Matrix* (Appendix A). Each of the four domains (Compliance, Security, Workflow and Clinical Alignment) contained approximately 10-12 indicators. For each indicator the scoring was done in the following manner:

1. Locate evidence from vendor and product material
2. Assess and assign a numeric score as per Indicator Design
3. Record the source evidence and justification if necessary

The study also wishes to disclose that to enhance the efficiency of identifying vendor and product specific features, artificial intelligence (AI) search tools (ChatGPT), was used to do the initial collection of publicly available documentation for each telehealth platform. The AI tool was used only for information retrieval of data that was already published by the vendors (e.g. official websites and product brochures).<sup>57</sup> The prompts used and the logs have been provided in *Appendix D: AI Prompts and Logs* so that other practitioners may be able to recreate the data collection activities using the same technique or adapt it for future automation workflows. The full data collection and scoring matrix for each platform is available in *Appendix B: Evaluation of Telehealth Platforms*.

*Phase 3 – Data Analysis and Results.* After the completion of the indicator scoring, each of the four domains (Compliance, Security, Workflow, and Clinical Fit) was weighted equally at 25%. Domain averages were computed by summing the percentage scores of all indicators under a domain and dividing by the total number of indicators within that domain. The resulting domain

averages were then plotted in a table to visually represent each platform's performance in each of the four domains.

The overall evaluation period was approximately two weeks during which 7 commercial telehealth platforms were systematically reviewed. Data collection and analysis was conducted from *October 15 to October 31, 2025* and all data and findings presented in this report are valid only as of those dates. The subsequent table (also in *Appendix C: Data Analysis and Results*) illustrates the summary of results of cross-platform comparative analysis stemming from data collection and scoring activities.

	Doxy.Me	Physitrack	Zoom Healthcare	TheraPlatform	JaneApp	Facetime	Google
Compliance Indicators	Score	Score	Score	Score	Score	Score	Score
Business Associate Agreement (BAA)	2	2	2	2	2	0	2
HIPAA / HITECH Privacy Policy References	2	2	2	2	2	1	2
Retention Policy	1	2	2	2	2	1	2
Meeting History and Audit Logs	2	2	2	1	2	0	2
Breach Management Procedures	2	2	2	2	2	1	2
Consent and Authorization Workflow	2	2	2	2	2	0	1
Complaint or Grievance Procedure Disclosure / Contact	1	2	2	2	2	2	1
Subcontractor / Subprocessor Compliance	2	2	2	2	2	1	2
Privacy and Cyber Security Training and Awareness	2	2	2	2	2	2	2
Data Use and De-Identification Policy	2	2	2	2	2	2	2
HIPAA Risk Assessment	2	2	2	2	2	0	2
	1.82	2.00	2.00	1.91	2.00	0.91	1.82
Cyber Security Indicators	Score	Score	Score	Score	Score	Score	Score
Role Based Access	2	2	2	2	2	0	2
Multi Factor Authentication (MFA)	2	2	2	2	2	2	2
Automatic Logoff and Idle Timeout	0	0	2	0	2	2	2
Encryption-in-Transit	2	2	2	2	2	2	2
Encryption-at-Rest	2	2	2	2	2	2	2
Data Integrity Controls	2	1	2	2	1	1	1
Third Party Security Attestation and Testing	2	2	2	1	1	2	2
Incident Response Procedures	2	1	2	1	2	2	2
Backup and Disaster Recovery Controls	2	2	2	2	2	2	1
Network Security Controls	2	2	2	2	2	2	2
Security Policy and Security Contact Availability	1	2	2	1	1	2	2
Patch Management Procedures	2	2	2	1	2	2	2
Cyber Insurance Policy	2	0	2	0	0	0	1
	1.77	1.54	2.00	1.38	1.62	1.62	1.77
Workflow / Administrative Indicators	Score	Score	Score	Score	Score	Score	Score
Scheduling and Automated Reminders	1	1	2	2	2	0	2
Integration with EMR Software	0	1	1	2	2	0	0
Client Billing / Insurance Verification	1	0	0	2	2	0	0
Secure Messaging / Chat Functionality	2	2	2	2	2	0	2
Uptime and Availability SLAs	1	1	1	0	1	1	2
Training Resources (Staff & Patient)	2	2	2	2	2	2	2
Licensure and Jurisdiction Verification	0	0	0	1	1	0	0
IT and Helpdesk Support	2	1	2	2	2	2	2
Multi-device Access	2	2	2	2	2	0	2
Delegated Access	2	0	2	2	2	0	1
Patient Queueing	2	0	2	2	2	0	2
Documentation Capability	2	2	2	2	2	0	2
	1.42	1.00	1.50	1.75	1.83	0.42	1.42
Clinical Fit Indicators	Score	Score	Score	Score	Score	Score	Score
HD Quality Video	2	2	2	1	2	2	2
Latency and Bandwidth Monitoring	2	2	2	1	2	0	2
Multi-camera / Multiple View	0	0	2	0	0	0	1
Remote Therapeutic Monitoring	0	2	1	1	0	0	0
Session Recordings	0	2	2	2	0	2	2
Home Exercise Program (HEP) Library	0	2	0	2	0	0	0
Video and Annotation Tools	1	0	2	2	0	1	2
Outcome Dashboard / PROMs Integration	0	2	0	2	2	0	0
Multi-Session Support	2	0	0	2	2	2	2
Safety and Symptom Tracking	0	2	0	0	0	0	0
Accessibility and Inclusive Design	2	2	2	0	2	2	2
Exercise Adherence Tracking / Check-Ins	0	2	0	2	0	0	0
	0.75	1.50	1.08	1.25	0.83	0.75	1.08

## EDUCATIONAL DISSEMINATION AND OUTPUTS

To promote collaboration and transparency, all of the outputs from this study including the evaluation guideline, the scoring templates, side-by-side platform comparison, charts and AI prompts will be made available as open source educational resources. The following Appendices present the detailed data, computations, results and logs of the design and application of the evaluation guidelines:

*Appendix A: Evaluation Guidelines* - This appendix is the evaluation guideline that resulted from the “Development of the Process” section and serves as the foundation of the evaluation across the domains. This section contains the full list of indicators, operational descriptions and sources / references organized across the four core domains (Compliance, Cyber Security, Administrative / Workflow, and Clinical Alignment).

*Appendix B: Evaluation of Telehealth Platforms* - This appendix is the result of the “Implementation of the Process” section. This section contains the scoring results for each of the commercial telehealth platforms and relevant notes for each one.

*Appendix C: Data Analysis and Results* - This appendix provides the calculations for the indicators, domain scores and overall percentages presented in the “Outcomes” section of the study. The spreadsheet formulas and charts used are annotated to ensure transparency and replicability

*Appendix D: AI Prompts and Logs* - This appendix contains the AI prompts, search queries and log excerpts from the ChatGTP session used for the initial data gathering as described in the “Implementation of the Process”. This section is included for transparency of methodology, replicability, and to align with the ethical use of AI in research.<sup>57</sup>

*Appendix E: Educational and Dissemination Material* - One of the goals for this study is to make the results accessible to PT practitioners in alignment with APTA’s emphasis on evidence-based telehealth practice guidelines. The following deliverables have been prepared to facilitate future dissemination of the results of the study:

- SecurePT Website (SecurePT.org) - Serves as an open-access platform for all the deliverables resulting in this study. Additionally, all new updates such as newly reviewed telehealth platforms will be posted on this website.
- Templates and Product Evaluations - All of the templates and results used in data collection and data analysis in this study will be provided as open source materials via the SecurePT website.
- APTA Hawaii Newsletter (Summary) - A blurb will be created for publication in the APTA Hawaii Newsletter to support the distribution of the study. This blurb will be pointing to the SecurePT website.
- ResearchGate / LinkedIn - A summarized version of this study will be posted in ResearchGate as well as LinkedIn to facilitate further distribution of the results of the study for PT practitioners.

The purpose of preparing the dissemination materials is to extend the educational and practical impact of the study beyond the academic setting and towards every day PT practice supporting the growth of telehealth as a practice area for PTs.

## **DISCUSSION**

## **CONCLUSION**