

# TELEREHABILITATION IN 2012: POLICY AND INFRASTRUCTURE CHALLENGES TO UBIQUITOUS DEPLOYMENT ACROSS THE UNITED STATES

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## ABSTRACT

Telerehabilitation (TR) is a rapidly developing service delivery model across the rehabilitation professions (e.g., audiology; occupational therapy; physical therapy, psychology; rehabilitation counseling; speech-language pathology). Moreover, with the common threads of technology, accessibility, and an emphasis on consumer-based practice, telerehabilitation seems a natural fit for the deployment and support of a wide range of assistive technologies. While United States consumers, clinicians, and assistive technology technologists are each potentially “a click away” from unleashing the full potential of telehealth, out-dated policies and inhospitable infrastructures are currently inhibiting the growth of telerehabilitation. This paper will describe the conditions that are dampening the deployment of TR; offer exemplars to untangle and mitigate the limiting factors; and discuss the potential role of consumers in hastening the growth of TR.

*Keywords: Telerehabilitation, telehealth, state licensure*

## INTRODUCTION

Telerehabilitation can take many forms (both across and within disciplines) with numerous potential applications. Wisely recognizing the diversity of telepractice, the multi-disciplinary Telerehabilitation SIG of the American Telemedicine Association, Telerehabilitation SIG of the American Telemedicine Association, constructed an inclusive and far-reaching definition in their *Blueprint for Telerehabilitation Guidelines*:

“Telerehabilitation refers to the delivery of rehabilitation services via information and communication technologies. Clinically, this term encompasses a range of rehabilitation and habilitation services that include assessment, monitoring, prevention, intervention, supervision, education, consultation, and counseling. Telerehabilitation has the capacity to provide service across the lifespan and across a continuum of care. Just as the services and providers of telerehabilitation are broad, so are the points of service, which may include health care settings, clinics, homes, schools, or community-based worksites.”

While US consumers, clinicians, and assistive technology technologists, are potentially “a click away”

from unleashing the full potential of telehealth policy and other system-wide barriers are currently interacting with one another to inhibit the practice of telerehabilitation.

This presentation will set-forth the current policies and conditions that are dampening the deployment of TR in 2012 (e.g., a yet developing research base; insufficient reimbursement; sub-optimal state laws; lack of professional licensure portability; privacy concerns); offer exemplars to untangle and mitigate the limiting barriers; and discuss the potential role of consumers in hastening the growth of TR.

## INHIBITING FACTORS

The five factors that follow are currently inhibiting the wide deployment of TR in the United States:

**1. Research base:** Theodoros (2011) examined the telepractice research base in speech-language pathology and concluded that there is an “imperative” need to accelerate the conduct of further research. Indeed, Theodoros’ conclusions can be generalized across disciplines. There is a paucity of current research to demonstrate the comparative benefits (e.g., clinical outcomes; economic savings; consumer satisfaction) of interventions delivered via telerehabilitation versus in-person, and even less research concerning hybrid delivery methods (i.e., a combination of telerehabilitation and in-person interventions).

**2. Reimbursement:** Telepractice reimbursement streams are not yet sufficiently robust to support broad-based practice. (Brown, 2011). Currently, uneven and insufficient reimbursement serves as a major deterrent to the wide-spread adoption of telerehabilitation.

**3. State Laws:** As Brannon and Cason point out (2011), states have different laws that determine if and how telepractice can occur for audiology, occupational therapy, physical therapy and speech-language pathology. The old adage “if you know one state, you know one state,” embodies the significant variations in how states relate to telepractice. Many states variously prohibit, limit, or include no provisions for telepractice (ASHA, 2011). This inconsistency is especially problematic for consumers of rehabilitation who engage in frequent travel, because currently, *it is the location of*

*the client that determines the state in which the practitioner must be licensed.*

**4. Professional Licensure Portability:** Currently, there is a lack of uniformity for state license credentialing requirements, fees, and licensure maintenance requirements (e.g., continuing education) across the United States. Therefore, clinicians from many disciplines are reporting duplicative paperwork, expense, and wait times to obtain multiple licenses. The 2007 Second Report to the State Alliance for E-Health summarized the challenge as follows:

“The current credential verification method is a very time-consuming, paper-based process for state boards that contributes to the reluctance of healthcare professionals to apply for multiple licenses.”

and advanced a solution:

“The Taskforce believes that state boards can reduce these timeframes by establishing a centrally coordinated credentials verification organization for each profession to conduct the primary source verification of applicants’ credentials. In order to facilitate the collection of credentialing data for this system and ensure the portability of these credentials, state boards should collaborate to develop a nationwide core set of credentialing requirements that their respective health professionals would have to meet in order to obtain a license” (p. 6).

The US Federal Communications Commission also recognized the problem, and urged state licensing boards to accommodate multi-state licensure. The FCC concluded:

“If states fail to develop reasonable e-care licensing policies by the next 18 months [by September, 2011] Congress should consider intervening to ensure Medicare and Medicaid beneficiaries are not denied the benefits of e-care.”

In contrast, because they operate on federal property, the Department of Defense (DOD) and the Veterans Health Administration (VHA) have their own credentialing and licensure system, which allows their personnel to engage in inter-state practice -- but only if their clients are located on federal property during the service delivery.

**5. Privacy Concerns and HIPAA Compliance:** Recent research by Watzlaf, Fahima, Moeini, & Firouzan, (2010), and Watzlaf, Fahima, Moeini, Matusow & Firouzan (2011), as well as clinical exemplars provided by Cohn and Watzlaf, (2011), revealed the potential vulnerabilities

and uncertainties inherent in current, Internet-based telepractice. These authors presented strategies that practitioners and institutions might take to begin to mitigate the potential risks and liabilities.

Additional areas of need and opportunity relate to university training and continuing education programming. Competency-based training must be developed across the rehabilitation disciplines for all aspects of telepractice, including technology, professional practice issues, and ethics.

## FUTURE OPPORTUNITIES

It appears inevitable that telerehabilitation will eventually experience dynamic growth. However, telerehabilitation is not currently ubiquitous in the United States, due to multiple and potentially interactive factors, (e.g., reimbursement levels depend upon evidence-based research, etc.). Efforts to lessen these barriers appear to be emerging within each of the rehabilitation disciplines, professional associations, and to a lesser extent, state and government entities, but are still tentative and nascent.

Finally, a glaring, missing element for the advancement of telerehabilitation is widespread consumer-based engagement. A clearly articulated, consumer agenda could be profoundly impactful in shaping and fostering the advancement of telerehabilitation.

The American Association of People with Disabilities (AAPD), the nation’s largest, cross-disability based organization, has been notably receptive in partnering with the Rehabilitation Engineering Research Center (RERC) on Telerehabilitation at the University of Pittsburgh. The AAPD regularly disseminates telerehabilitation based information -- especially content published in the RERC’s *International Journal of Telerehabilitation* (<http://telerehab.pitt.edu>) -- the only peer reviewed e-journal dedicated to telerehabilitation.

Telerehabilitation will be on its way to becoming a ubiquitous service delivery model when consumers recognize that they are potentially “one click away” from receiving faster, cost-saving (travel; time; loss of paid work, etc.) and more convenient rehabilitation services – and strongly indicate a preference for such services to their practitioners, health insurance plans, and legislators.

## REFERENCES

American Speech-Language-Hearing Association. (2011). *State licensure telepractice provisions*. Retrieved from <http://www.asha.org/Practice/telepractice/telepractice-licensure/>

American Telemedicine Association, Telerehabilitation Special Interest Group on Telerehabilitation, A Blueprint of Telerehabilitation Guidelines, (2010). <http://www.americantelemed.org/i4a/pages/index.cfm?pageID=3311> , or: doi: 10.5195/ijt.2010.6063

Brannon, J., and Cason, J. (2011). Telehealth regulatory and legal considerations: Frequently asked questions. 3(2). doi: 10.5195/ijt.2011.6077

Brannon, J, Cason, J., & Cohn, E. (2011). American Telemedicine Association: Telerehabilitation Special Interest Group, Licensure Working Portability Working Group Report, Resolving Barriers to Licensure Portability for Telerehabilitation Professionals, *International Journal of Telerehabilitation*, 3(2), doi: 10.5195/ijt.2011.6078

Brown, J. (2011). ASHA and the evolution of telepractice. *Perspectives on Telepractice* 1:4-9; doi:10.1044/tele1.1.4

Cohn, E., and Watzlaf, V. (2011). Privacy and internet-based telepractice. *Perspectives on Telepractice*, 1:26-37; doi:10.1044/tele1.1.26

Second Report from the Health Care Practice Taskforce to the State Alliance for E-Health, October 3, 2007, [financed by funds from the US Department of Health and Human Services, Office of the National Coordinator for Health IT (ONCHIT) under a contract with the National Governors Association for the State Alliance for e-Health.] [http://www.nga.org/files/live/sites/NGA/files/pdf/0710EH\\_EALTHHCPREPORT.PDF](http://www.nga.org/files/live/sites/NGA/files/pdf/0710EH_EALTHHCPREPORT.PDF)

Theodoros, D. (2011). Telepractice in speech-language pathology: The evidence, the challenges, and the future. *Perspectives on Telepractice*, 1: 10-21; doi:10.1044/tele1.1.10

Watzlaf, V., Fahima, R., Moeini, S., & Firouzan, P. (2010). VoIP for telerehabilitation: A risk analysis for privacy, security, and HIPAA compliance. *International Journal of Telerehabilitation*, 2(2), 3-14. doi:10.5195/IJT.2010.6056

Watzlaf, V., Fahima, R., Moeini, S., Matusow, L. & Firouzan, P. (2011). VoIP for telerehabilitation: A risk analysis for privacy, security, and HIPAA compliance – Part II. *International Journal of Telerehabilitation*, 3(1), 3-10. doi: 10.5195/IJT.2011.6070

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