Teledermatology began in the 1960s, while radiologists initiated the transference of digital images from one location to another (i.e., teleradiology). During the 1990s, telestroke centers flourished in the late 1990s and early 2000s. Telesurgical applications in urology (e.g., a robotic arm for laparoscopic procedures) were being evaluated in the mid-1990s. Tele-home health with remote monitoring also had its start in the 1990s, and the first electronic monitoring of critical care unit patients (eICU) commenced in approximately 2003. Cardiology, ophthalmology, pediatrics, obstetrics, gynecology, neurology, pathology, oncology, and general surgery are just some of the specialties utilizing telemedicine technology today.

Two primary types of technology encompass telemedicine applications. Asynchronous or “store-and-forward” is the transference of a digital image “stored” and “forwarded” by computer to another location. Teleradiology, pathology, and dermatology use store-and-forward technology to send radiographs and specimens for diagnosis or consultation.

References:
Two-way interactive television (IATV) and videoconferencing technology enables health care providers and their patients (often in rural locations) to conduct face-to-face, “real time” consultations with specialists in urban medical centers located within the state or across state lines. Peripheral devices (e.g., otoscopies, stethoscopes), attached to computers, enable the providers to conduct the interactive examinations. Telemedicine continues to expand as technology becomes available. For example, “…it’s not unusual to use store-and-forward, interactive, audio, and video still images in the variety of combinations and applications. Use of the Web to transfer clinical information and data is also becoming more prevalent. Wireless technology is being used for instance, in ambulances providing mobile telemedicine services.”  

Tele-home health uses telemonitoring devices (e.g., plug-in blood pressure cuff, blood glucose monitor attached to a workstation) to monitor patients’ blood pressure and sugar levels. Transtelephonic pacemaker monitoring allows cardiac technicians to ensure implanted pacemakers are functioning properly; electrocardiogram (EKG) rhythm strips are also transmitted. InTouch Health’s RP-7 Robot enables physicians and their patients remote access to specialists. For example, St. Alphonsus Regional Medical Center in Boise, Idaho, has approximately seven RP-7 Robots located throughout the state.

Telemedicine will continue to evolve and expand as medicine experiences shortages in specialists and nurses, as patients remain geographically isolated from specialty care and as Medicare/ Medicaid and private payers increasingly agree to reimburse healthcare providers for telemedicine services.

Barriers to telemedicine and telehealth

Notable road blocks to telemedicine, which originated with its advent, remain today. Licensure requirements vary from state to state; federal and state definitions of telemedicine differ; reimbursement for services provided is inconsistent; litigation venues remain uncertain; and more.

Licensure: “In April 1996, the Federation of State Medical Boards (FSMB) developed a Model Act to regulate the practice of medicine across state lines to respond to telemedicine issues.”  

The Act required physicians who practice interstate telemedicine to obtain a special license issued by a state medical board; however, the license would not authorize the provider to physically practice medicine within the state unless he/she obtained a full, unrestricted license. To date, no state has adopted the FSMB’s model. Instead, many have included telemedicine in their state Practice Act and/or revised their licensing requirements. Numerous state medical boards, including Alaska, California, Hawaii and Idaho require physicians to have a full, unrestricted medical license before practicing telemedicine in the state where the patient is located (see Figure 1).

Federal and state definitions of telemedicine differ: Telemedicine (what it is and what is it not) is not uniformly defined by federal and state legislatures. According to the Centers for Medicare and Medicaid Services (CMS), “For the purposes of Medicaid, telemedicine is the use of medical information exchanged from one site to another via electronic communications to improve a patient’s health. Electronic communication means the use of interactive telecommunications equipment that includes, at a minimum, audio and video equipment permitting two-way, real time interactive communication between the patient, and the physician or practitioner at the distant site.” “Store and forward” applications do not fall under the accepted federal definition of telemedicine. Instead, they are included in telehealth technologies, together with telephones, facsimile machines, e-mail systems and remote patient monitoring devices.

State definitions likewise vary. For example, in California, telephone and e-mail communication between physicians and patients does not constitute telemedicine.

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10 Telemedicine Overview, www.cms.hhs.gov/Telemedicine/
Hawaii, telephone, facsimile, and e-mail communication “in the absence of other integrated information or data” may not fall under the definition of telehealth (see Figure 2). However, one could easily argue that a telephone call, during which a physician located in Oahu reviews with a patient (on Molokai) the results of diagnostic lab tests or digital images and recommends treatment in follow-up or prescribes medication, could cause that telephonic interaction to constitute telemedicine/telehealth, under Hawaii’s definition of these terms.

It is vital for providers to understand the federal and state definitions of telemedicine in order to determine what services will or will not be reimbursed by Medicare/Medicaid and private payers.

Medicare/Medicaid and private insurers reimbursement: “In 1998, CMS (formerly the Healthcare Financing Administration [HCFA]) published final rules for Medicare payment for teleconsultations in health professional shortage areas (HPSAs) and gave all 50 states in the Union the option to pay for telemedicine consultations with Medicaid funds, but left it up to each state to determine the level of coverage.”11 As of 2005, 34 states had some form of Medicaid contract (including Alaska, California and Hawaii; Idaho did not) and 16 states were not reimbursing telemedicine services.12 A survey conducted by the American Telemedicine Association (ATA) in 2003 dispelled the assumption that private payers fail to reimburse for the practice of telemedicine. The ATA survey found that over half of the 72 programs reviewed in 25 states were paid by private payers. “Twenty-one states were identified with Blue Shield/Blue Cross reimbursement for telemedicine and over 100 other private payers were identified.”13 In Alaska, California and Hawaii, private insurers reimburse telemedicine services; both California and Hawaii legislated payment requirements, while Alaska’s Administrative Code defines services reimbursed by Medicaid. As the ATA survey implied, as telemedicine becomes “normalized” within the practice of medicine, the issue of reimbursement will disappear.

Litigation venue: Some uncertainty remains in the legal community as to where a lawsuit, in which the delivery of telemedicine is at issue, would be filed. Generally accepted legal practices require a suit to be venued where the injury occurred and/or where the patient resides; however, the facts of some cases might warrant otherwise. Clearly, a case would be filed in the patient’s home state in which, for example, a California consultant examines a patient in Arizona via videoconferencing or a radiologist in New Mexico interprets films for a patient in New York. But consider the scenario of two consulting physicians in which the “controlling provider” (i.e., the physician who is managing a patient’s care) lives and is licensed in the patient’s home state, while the consultant is located out-of-state. The out-of-state physician may not be required to obtain a full, unrestricted license in the patient’s home state because his interaction is with the managing provider and not directly with the patient. The “controlling provider” relies upon the consultant’s recommendation, carries out a treatment, and the patient is injured. Where would the lawsuit against the consulting physician be filed? Would the consulting physician be protected by the laws of his/her licensing state (e.g., tort reform laws), or would the laws of the patient’s home state be invoked? The answer is unclear.

HIPAA requirements: The HIPAA Privacy Rule and Security Rule (45 CFR §§ 160 and 164) expressly permits a covered entity14 to disclose protected health information (PHI) to other health care providers for purposes of consultation or treatment; PHI transmitted over the Internet must be encrypted. PHI can also be transmitted to insurance company payers for purposes of obtaining payment. PHI may be disclosed to a business associate, so long as the covered entity obtains satisfactory assurances in the form of a con-


12 ibid
13 ibid

14 A “covered entity” is defined under the HIPAA regulations as: (1) health plans, (2) health care clearinghouses, and (3) health care providers who electronically transmit any health information in connection with transactions for which HHS has adopted standards. Thus, covered entities can be institutions, organizations, or persons.
tract or other agreement that the business associate will appropriately safeguard the information. See 45 C.F.R. §§ 164.502(e), 164.504(e). A business associate is a person (other than a workforce member) or entity that performs certain functions or activities that involve the use or disclosure of PHI on behalf of, or provides certain services to, a covered entity. See 45 C.F.R. § 160.103 (definition of “business associate”). If PHI is transmitted electronically to a billing service or transcriptionist, a business associate agreement is necessary. An example of a business associate specific to telemedicine would be an outside vendor hired to provide and/or facilitate the telemedicine interface, such as a videographer.

The contract between a covered entity and its business associate must establish the permitted and required uses and disclosures of PHI by the business associate but generally may not authorize the business associate to use or further disclose PHI in a manner that would violate the Privacy Rule. The contract also must require the business associate to return or destroy all PHI at the termination of the contract, among other things. See 45 C.F.R. § 164.504(e).

**Physician-patient relationship:**
The legal definition of a physician-patient relationship continues to impact telemedicine and its assimilation into traditional medicine. State laws have not answered the question, “Is a physician-patient relationship and the duty of care, established during a telemedicine encounter?” Traditionally, the relationship commences during a face-to-face encounter in which the physician conducts a good-faith examination, makes a diagnosis and recommends treatment. As some commentators on the subject have observed, law makers and regulatory agencies have been slow to refine the definition and develop standards or practice guidelines for telemedical applications.15 “As long as a physician agrees to ‘see’ the patient (or even agrees to examine an x-ray or pathology specimen) and provides some level of evaluation of the patient’s condition, and the patient relies upon the advice given by the physician, there is a relationship formed and a duty exists.”16

Required follow-up that remains an integral component of the duty of care is also a difficult standard with which to comply when viewed within the context of telemedicine. Management of prescribed medications, follow-up on referrals to other specialists, review of ordered diagnostic test results, and more, remain the duty of the treating healthcare provider, a daunting task and significant liability when assumed from a brief electronic encounter. If a telemedicine consultation occurs at the direction of a primary care physician or in conjunction with another specialist, follow-up is manageable and less risky; however, for providers who take on a primary care role, the liability incurred is much greater.

As the California’s Board of Medicine notes on its website, “The standard of care is the same whether the patient is seen in-person, through telemedicine or other methods of electronically enabled healthcare … In summary, the law governs the practice of medicine, and no matter how communication is performed, the standards are no more or less. Physicians practicing via telemedicine are held to the same standard of care, and retain the same responsibilities of providing informed consent, ensuring the privacy of medical information, and any other duties associated with practicing medicine. Telemedicine is seen as a tool in medical practice, not a separate form of medicine.”17

**Recommendations:** As physicians continue to embrace the countless applications of telemedicine, they should simultaneously maintain the standards of care vital to the quality practice of medicine. When contemplating participation in telemedicine/telehealth activities, MIEC recommends that you:

1. Contact the medical licensing boards in the states where the patient is located for licensing requirements and applications.

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17 www.mbc.ca.gov/licensee/telemedicine.html
(2) Be familiar with federal- and state-specific definitions of telemedicine and their legal restrictions.

(3) Be knowledgeable about Medicare/Medicaid and private payer reimbursement policies to ensure payment for telemedicine services rendered.

(4) Notify MIEC in writing of telemedicine activities.

(5) Be familiar with HIPAA requirements regarding protected health information. This may require careful review of how you store and transfer electronic health information. You may need to implement some type of encryption for electronic communications.

(6) Maintain the standard of care:

(a) Obtain an appropriate medical history and conduct a good faith examination prior to making a diagnosis, prescribing medications, ordering diagnostic tests, or referring patients to specialists;

(b) **Specialists who use “store and forward” technology:** Obtain and review meaningful clinical information to assist you in your evaluation and ultimate interpretation;

(c) Maintain quality documentation to memorialize encounters and ensure its confidentiality;

(d) Obtain informed consent when required by law, and document the discussion; and

(e) Develop follow-up systems to manage prescribed medications, to review ordered diagnostic tests and consultation reports, and to ensure proper patient care.

**TO REACH MIEC**

**Fax:**
Loss Prevention: 510/420-7066
Oakland: 510/654-4634
Honolulu: 808/531-5224
Boise: 208/344-7903

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Underwriting@miec.com
Claims@miec.com

**MIEC on the Internet:**
[www.miec.com](http://www.miec.com)

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**Notify MIEC of telemedicine activities**

MIEC’s policy, General Conditions, Paragraph 21, **PLACE OF PRACTICE AND TELEMEDICINE** reads:

C. **You** agree that insurance coverage under this policy is available for acts, or the alleged failure to act, which constitute the practice of telemedicine according to the laws of any jurisdiction wherein such act or failure to act is alleged to have occurred, only if **you** are duly licensed or permitted under such laws to engage in the practice of telemedicine and have previously notified MIEC in writing of your intention to engage in telemedicine in such jurisdiction and agreement by MIEC.

Policyholders should be assured that MIEC can usually cover telemedicine activities within their primary state of practice. Practicing out-of-state presents additional concerns as outlined in this newsletter. In either case, all policyholders should contact the MIEC Underwriting Department with details regarding their practice of telemedicine as coverage is subject to review and approval by MIEC.
RED FLAG RULE

The Federal Trade Commission’s Red Flag Rule (16 C.F.R.§§ 681.1-.2) regulations go into effect August 1, 2009. The rule requires that any institution considered a "creditor" develop and implement a system that will protect consumers from identity theft. The Rule does not specifically state that physician practices are subject to the regulations, but because medical identity theft is possible, preventative measures should be taken by physician practices. In response to the FTC's position that physicians who extend credit by allowing deferred and/or delayed payment (e.g., insurance claims or payment plans) are creditors, the AMA and CMA are attempting to persuade the FTC that physicians are not creditors, but until the matter is resolved, it is recommended that physicians prepare their practice for compliance.

The Red Flag Rule works in tandem with HIPAA’s privacy and security regulations, and also includes credit card information, tax identification numbers, social security numbers, business identification numbers and employer identification numbers, insurance claim information and background checks for employees and service providers. Physicians are encouraged to incorporate medical identity theft prevention policies into their existing protective policies.

For some physicians existing HIPAA policies and other privacy procedures may be sufficient for Red Flag Rule compliance. The Rule requires "reasonable" policies and procedures be in place by the August 1, 2009 deadline. "Reasonable" depends on a practice's specific circumstances or specific experience with medical identity theft and the degree of risk in a practice. The penalty for a noncompliance is $2,500.

Practice management questions or concerns may be electronically submitted to AMA Practice Management Center at: practicemanagmentcenter@ama-assn.org

For compliance specifics or additional resources, physicians may:
- Call: AMA Practice Management Center at 800-262-3211
- Visit: www.ama-assn.org/go/pmc or www.ama-assn.org to access the AMA Practice Management Center Website

California physicians who are members of the CMA may access a members' only website to download CMA's Red Flag Rules Toolkit. http://www.calphys.org/html/cc874.asp.
## Figure 1: State license requirements for telemedicine

<table>
<thead>
<tr>
<th>State</th>
<th>Licensure required</th>
<th>Legal provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska</td>
<td>Alaska requires a full, unrestricted medical license for out-of-state physicians to practice medicine in the state. Alaska licensure is not required for a “physician or osteopath, who is not a resident of this state, who is asked by a physician or osteopath licensed in this state to help in the diagnosis or treatment of a case. . . .” <em>Alaska Statutes 08.64.370</em></td>
<td>A health care provider must obtain a patient’s or legal guardian’s oral and written informed consent to participate in a telemedicine encounter. Patient or guardian must be informed orally and in writing: (1) option to withhold or withdraw consent; (2) risks, benefits and consequences of telemedicine; (3) Confidentiality protections that apply; (4) access to medical information and copies of records; and (5) consent for dissemination of any patient images or information from the telemedicine to researchers or other entities. The law requires that a patient or guardian sign a consent form and retain a copy in the patient’s chart. Exception to the informed consent rule: “…shall not apply when the patient is not directly involved in the telemedicine interaction, for example when one health care practitioner consults with another health care practitioner.” <em>Business and Professions Code §2290.5(h)</em></td>
</tr>
<tr>
<td>California</td>
<td>California requires a full, unrestricted medical license for out-of-state physicians if patients are directly involved in the telemedicine interaction. <em>Business and Professions Code §2290.5(b)</em></td>
<td></td>
</tr>
<tr>
<td>Hawaii</td>
<td>Hawaii requires a full, unrestricted medical license for an out-of-state physician who opens an office in the Islands; appoints a place to meet patients in HI; or “receives calls within the limits of the State for the provision of care for a patient who is located in this State.” <em>HRS §453-2(b)(3)(A)</em></td>
<td></td>
</tr>
<tr>
<td>Idaho</td>
<td>Idaho requires full, unrestricted medical license for an out-of-state physician who opens an office in the State, appoints a place to meet patients, or receives phone calls from patients within Idaho. <em>Idaho Code §54-1804(1)(b)</em></td>
<td>Telemedicine is not specifically addressed in Idaho licensure law, regulation or policy; however, the consultation exception would appear to allow telehealth, or conferencing between an out-of-state (not licensed in Idaho) physician and an in-state physician. <em>Idaho Code §54-1804(1)(b).</em> While the Idaho Legislature previously declined to define “consultation” to include telemedicine, this appears to have been for reasons unrelated to the inclusion of telehealth in the definition.</td>
</tr>
</tbody>
</table>

Idaho licensure is not required for an out-of-state physician who is called by a licensed ID physician in consultation; or is invited into ID to conduct a lecture, clinic or demonstration to further medical education. *Idaho Code §54-1804(1)(b).*
Figure 2: State-specific definition of telemedicine

<table>
<thead>
<tr>
<th>State</th>
<th>Definition of telemedicine (or medicine)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska</td>
<td>“Practice of medicine” or “practice of osteopathy” means: “…for a fee, donation or other consideration, to diagnose, treat, operate on, prescribe for, or administer to, any human ailment, blemish, deformity, disease, disfigurement, disorder, injury, or other mental or physical condition; or to attempt to perform or represent that a person is authorized to perform any of the acts set out in this subparagraph; …”Alaska Statutes 08.64.380(6)(A)</td>
</tr>
<tr>
<td></td>
<td>Alaska statutes do not specifically define telemedicine; however, Alaska’s Administrative Code Title 7, Section 43.1210 defines telemedicine applications and limitations.</td>
</tr>
<tr>
<td>California</td>
<td>“…the practice of health care delivery, diagnosis, consultation, treatment, transfer of medical data, and education using interactive audio, video or data. Neither telephone conversation or an electronic mail message between a health practitioner and patient constitute ‘telemedicine’ for purposes of this section.” Business and Professions Code §2290.5(a)(1)(2)</td>
</tr>
</tbody>
</table>
|            | (a) Nothing in this section shall preclude any physician acting within the scope of the physician's license to practice from practicing telemedicine as defined in this section. (b) For the purposes of this section, "telemedicine" means the use of telecommunications services, including real-time video or web conferencing communication or secure web-based communication to establish a physician-patient relationship, to evaluate a patient, or to treat a patient. "Telehealth" as used in chapters 431, 432, and 432D, includes "telemedicine" as defined in this section. (c) Telemedicine services shall include a documented patient evaluation, including history and a discussion of physical symptoms adequate to establish a diagnosis and to identify underlying conditions or contra-indications to the treatment recommended or provided. (d) Treatment recommendations made via telemedicine, including issuing a prescription via electronic means, shall be held to the same standards of appropriate practice as those in traditional physician-patient settings that do not include a face to face visit but in which prescribing is appropriate, including on-call telephone encounters and encounters for which a follow-up visit is arranged. Issuing a prescription based solely on an online questionnaire is not treatment for the purposes of this section and does not constitute an acceptable standard of care. For the purposes of prescribing a controlled substance, a physician-patient relationship shall be established pursuant to chapter 329. (e) All medical reports resulting from telemedicine services are part of a patient's health record and shall be made available to the patient. Patient medical records shall be maintained in compliance with all applicable state and federal requirements including privacy requirements. (f) A physician shall not use telemedicine to establish a physician-patient relationship with a patient in this State without a license to practice medicine in Hawaii. Once a provider-patient relationship is established, a patient or physician licensed in this State may use telemedicine for any purpose, including consultation with a medical provider licensed in another state, authorized by this section, or as otherwise provided by law.” HRS §453-269-1. For the purposes of this section, "telehealth" means the use of telecommunications services, as defined in section 269-1, including but not limited to real-time video conferencing-based communication, secure interactive and non-interactive web-based communication, and secure asynchronous information exchange, to transmit patient medical information, including diagnostic-quality digital images and laboratory results for medical interpretation and diagnosis, for the purpose of delivering enhanced health care services and information to parties separated by distance. Standard telephone, facsimile transmissions, or email in the absence of other integrated information and data, does not constitute a telehealth service.” HRS §432D-23.5 [It should be noted that “telehealth” is used in the referenced statute in the context of governance of health maintenance organizations, but a reasonable inference is that the definition is guidance in considering the parameters of allowable conduct by health care providers in an other than “face to face” setting.]
|            | While Idaho has not statutorily defined “telemedicine,” the Idaho Department of Health & Welfare has enacted regulations defining Psychiatric Telehealth and reimbursement by Medicaid. See IDAPA 16.03.09 subsection 500 and 502.                                               |
| Idaho      | “To investigate, diagnose, treat, correct or prescribe for any human disease, ailment, injury, infirmity, deformity or other condition, physical or mental, by any means or instrumentality.” Idaho Code §54-1803(1)(a)                                                                                           |