

ARTICLES

TELEHEALTH AND TELEMEDICINE IN 2015

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I. INTRODUCTION

Three of the major goals of the Affordable Care Act (generally known as Obamacare)¹ are to improve access to healthcare, to improve the quality of healthcare, and to provide care in a more cost-effective manner.² Telehealth and telemedicine can assist in achieving all of these goals.

According to one recent report, “[e]very year in the United States, about 10 million patients receive telemedicine services. In most of those cases, the patients do not know that telemedicine is being used.”³ Another report estimated that “1.8 million patients will be treated via telehealth worldwide by 2017.”⁴ As the American Telemedicine Association points out:

Telemedicine is not a separate medical specialty. Products and services related to telemedicine are often part of a larger investment by health care institutions in either information technology or the delivery of clinical care. Even in the reimbursement fee structure, there is usually no distinction made between services provided on site and those provided through telemedicine and often no separate coding required for billing of remote services.⁵

¹ The Affordable Care Act is a shorthand term commonly used to refer to two separate statutes: the Patient Protection and Affordable Care Act, Pub. L. No. 111-148, 124 Stat. 119 (2010), and the Health Care and Education Reconciliation Act, Pub. L. No. 111-152, 124 Stat. 1029 (2010).

² Patient Protection and Affordable Care Act § 5001, 124 Stat. at 588.

³ Jonathan Linkous, *Overview of Common Challenges, in THE ROLE OF TELEHEALTH IN AN EVOLVING HEALTH CARE ENVIRONMENT* 17, 17 (Tracy A. Lustig rapporteur, Nat’l Acad. Press 2012) [hereinafter *THE ROLE OF TELEHEALTH*], available at <http://www.ic4n.org/wp-content/uploads/2014/06/IoM-Telehealth-2012-Workshop-Summary.pdf>.

⁴ Susan D. Hall, *3 Telehealth Issues That Elevate Health Leaders’ Worry-Meters*, *FIERCEHEALTHIT* (June 17, 2013), <http://www.fiercehealthit.com/story/3-telehealth-issues-elevate-health-leaders-worry-meters/2013-06-17> (last visited Aug. 1, 2015).

⁵ *What is Telemedicine?*, AM. TELEMEDICINE ASS’N, <http://www.americantelemed.org/about-telemedicine/what-is-telemedicine#.VPN4clI5AZc> (last visited Aug. 1, 2015). In a 1996 report, the Institute of Medicine (IOM) Committee on Evaluating Clinical Applications of Telemedicine found that: “telemedicine is similar in most respects to other technologies for which better evidence of effectiveness is also being demanded. Telemedicine, however, has some special characteristics—shared with information technologies generally—that warrant particular notice from evaluators and decisionmakers. Most notably, telemedicine is not a single technology or a discrete set of related technologies; it is, rather, a large and very heterogeneous collection of clinical

As the World Health Organization (WHO) notes, telemedicine can be traced back to the 19th century.⁶ In the early 20th century, electrocardiograph data were transmitted over telephone wires.⁷ In its modern form, telemedicine started in the 1960s, including the use of television to facilitate consultations between specialists at a psychiatric institute and general practitioners at a state mental hospital,⁸ and the provision of expert medical advice from a major teaching hospital to an airport medical centre.⁹

The recent growing interest in telehealth and telemedicine is attributable to several factors, including the widespread use of advanced technology; the reduced cost of that technology; a strong public policy of expanding access to health care and the quality of care; shortages of medical professionals in certain areas of the country and certain practice areas; and the need to control the cost of providing care.¹⁰ A 2012 report noted that:

[B]arriers remain to the use of telehealth modalities, including issues related to reimbursement, licensure, workforce, and costs. Also, some areas of telehealth have developed a stronger evidence base than others.¹¹

....

Telehealth is a key component in ensuring access to health care services in isolated geographic areas across the United States. More effective deployment of telehealth technologies will enhance our ability to better meet the health care needs of those in rural and frontier parts of the country. However, telehealth is important not just for rural communities, but for any underserved

practices, technologies, and organizational arrangements. In addition, widespread adoption of effective telemedicine applications depends on a complex, broadly distributed technical and human infrastructure that is only partly in place and is being profoundly affected by rapid changes in health care, information, and communications system." See *TELEMEDICINE: A GUIDE TO ASSESSING TELECOMMUNICATIONS FOR HEALTH CARE* 207 (Marilyn J. Field ed., Nat'l Acad. Press 1996).

⁶ WORLD HEALTH ORG., *TELEMEDICINE: OPPORTUNITIES AND DEVELOPMENTS IN MEMBER STATES* 9 (2010) [hereinafter *WHO TELEMEDICINE*], available at http://www.who.int/goe/publications/goe_telemedicine_2010.pdf.

⁷ *Id.*

⁸ *Id.*

⁹ *Id.*

¹⁰ Karen S. Rheuban, *Welcome From IOM Planning Committee*, in *THE ROLE OF TELEHEALTH*, *supra* note 3, at 5.

¹¹ *THE ROLE OF TELEHEALTH*, *supra* note 3, at 1–2.

community.¹²

In December 2014, New York followed twenty-one other states and the District of Columbia in enacting telehealth parity legislation.¹³ This article will discuss the New York law in the context of current developments in the use of telehealth and telemedicine.

II. TELEHEALTH & TELEMEDICINE DEFINITIONS

A. *New York*

The 2014 New York legislation includes the following definitions. The definitions apply unless otherwise expressly stated or unless the context or subject matter requires a different meaning. In 2015, legislation was enacted to revise the 2014 legislation,¹⁴ and the 2015 law revises these definitions, as described below.

Telehealth. The term “telehealth” means delivering *health care services* by means of information and communications technologies consisting of telephones, remote patient monitoring devices or other electronic means which facilitate the assessment, diagnosis, consultation, treatment, education, care management and self management of a patient’s health care while such patient is at the originating site and the health care provider is at a distant site; consistent with applicable federal law and regulations; unless the term is otherwise defined by law with respect to the provision in which it is used.¹⁵

¹² Mary Wakefield, *Welcome From Project Sponsor, in THE ROLE OF TELEHEALTH*, *supra* note 3, at 6.

¹³ Act of Dec. 29, 2014, ch. 550, § 1, 2014 N.Y. Laws (S. 7852). Washington State enacted parity legislation in April 2015. Adam D. Romney and Michaela Bantilan Andrawis, *Hold the Phone! Washington Adopts Telemedicine Parity Law*, DWT.COM (Apr. 30, 2015), <http://www.dwt.com/Hold-the-Phone-Washington-Adopts-Telemedicine-Parity-Law-04-30-2015/>. By contrast, in the same month the Texas Medical Board voted to sharply restrict the use of telemedicine in that state. Abby Goodnough, *Texas Medical Panel Votes to Limit Telemedicine Practice in State*, N.Y. TIMES, Apr. 11, 2015, at A9.

¹⁴ Specifically, on Jan. 23, 2015, Assembly Bill 2552–A and Senate Bill 2405 were introduced into the New York State Legislature and were effectively signed into law nearly three months later. *See* Act of Mar. 13, 2015, ch. 6, § 2, 2015 N.Y. Laws (A. 2552–A).

¹⁵ N.Y. PUB. HEALTH LAW § 2(1)(r) (McKinney 2014) (repealed 2015) (emphasis added).

Telemedicine. The term “telemedicine” means the delivery of *clinical health care services* by means of real time two-way electronic audio visual communications, including the application of secure video conferencing or store and forward technology to provide or support healthcare delivery, which facilitate the assessment, diagnosis, consultation, treatment, education, care management and self management of a patient’s health care while such patient is at the originating site and the health care provider is at a distant site; consistent with applicable federal law and regulations; unless the term is otherwise defined by law with respect to the provision in which it is used.¹⁶

The 2015 law modifies the definition of telemedicine to include only synchronous, two-way electronic audiovisual communication.¹⁷

The 2014 law attached different insurance coverage requirements to each term. In the 2015 law, insurers are simply required to cover telehealth, defined as follows:

“Telehealth” means the use of electronic information and communication technologies by telehealth providers to deliver health care services, which shall include the assessment, diagnosis, consultation, treatment, education, care management and/or self-management of a patient. Telehealth shall *not* include delivery of health care services by means of audio-only telephone communication, facsimile machines, or electronic messaging alone, though use of these technologies is not precluded if used in conjunction with telemedicine, store and forward technology, or remote patient monitoring. For purposes of this section, telehealth shall be limited to telemedicine, store and forward technology, and remote patient monitoring. This subdivision shall not preclude the delivery of health care services by means of “home telehealth” as used in section thirty-six hundred fourteen of this chapter.¹⁸

¹⁶ *Id.* § 2(1)(s) (repealed 2015) (emphasis added).

¹⁷ Act of Mar. 13, 2015, ch. 6, § 2, 2015 N.Y. Laws (A. 2552-A) (to be codified at N.Y. PUB. HEALTH LAW § 2999-cc(5)).

¹⁸ *Id.* (to be codified at N.Y. PUB. HEALTH LAW § 2999-cc(5)) (emphasis added). The Federal Health Resources Services Administration, which is part of the Department of Health and Human Services, defines telehealth as: “the use of electronic information and telecommunications technologies to support long-distance clinical health care, patient and professional health-related education, public health and health administration. Technologies include videoconferencing, the Internet, store-and-forward imaging, streaming media, and terrestrial and wireless communications.” *Telehealth*, HEALTH RESOURCES &

Thus, as one comment notes:

[T]he term is broader under the Insurance Law than in application to the Medicaid program. Furthermore, there is no limiting definition on the originating or distant site location. For example, the delivery of health care services by means of audio-only telephone alone, if an appropriate medical practice, would have to be covered by the plans. On its face, the definition leaves open the debate, and inevitably the coverage disputes, regarding what covered services can be delivered by means of telehealth under applicable medical practice standards and policy terms.¹⁹

Communications can be in real time (synchronous, e.g., live videoconferencing) or asynchronous (e.g., store and forward).²⁰ “Telehealth,” as redefined, excludes the delivery of health care services by means of audio-only telephone communications, facsimile or email alone, and is limited to telemedicine, store and forward technology, and remote patient monitoring.²¹ “Telemedicine,” as redefined, is no longer subject to a requirement that the services are delivered consistent with

SERVICES ADMIN., <http://www.hrsa.gov/ruralhealth/about/telehealth/> (last visited Aug. 1, 2015). Compare this to the definition suggested by the American Telemedicine Association: “Formally defined, telemedicine is the use of medical information exchanged from one site to another via electronic communications to improve a patient’s clinical health status. Telemedicine includes a growing variety of applications and services using two-way video, email, smart phones, wireless tools and other forms of telecommunications technology . . . ATA has historically considered telemedicine and telehealth to be interchangeable terms, encompassing a wide definition of remote healthcare. Patient consultations via video conferencing, transmission of still images, e-health including patient portals, remote monitoring of vital signs, continuing medical education, consumer-focused wireless applications and nursing call centers, among other applications, are all considered part of telemedicine and telehealth.” *What is Telemedicine?*, AM. TELEMEDICINE ASS’N, <http://www.americantelemed.org/about-telemedicine/what-is-telemedicine#.VVEJ7Etbxg1> (last visited Aug. 1, 2015). Telehealth is different from telemedicine because it refers to a broader scope of remote healthcare services than telemedicine. While telemedicine refers specifically to remote clinical services, telehealth can refer to remote non-clinical services, such as provider training, administrative meetings, and continuing medical education, in addition to clinical services. *Id.*

¹⁹ See Charles C. Dunham, IV, *New Telehealth Legislation Proposed in New York for 2016*, N.Y. ST. BAR ASS’N (Mar. 9, 2015, 1:50 PM), <http://communities.nysba.org/blogs/charles-dunham/2015/03/09/new-telehealth-legislation-proposed-in-new-york-for-2016>.

²⁰ Act of Mar. 13, 2015, ch. 6, § 2 (to be codified at N.Y. PUB. HEALTH LAW 2999-cc(4)).

²¹ *Id.*

federal laws and regulations.²²

Health care provider. The term “health care provider” means a person licensed pursuant to specified articles of the New York Education Law, including physicians, physician assistants, dentists, nurses, midwives, podiatrists, optometrists, opticians, psychologists, social workers and speech language pathologists and audiologists, acting within their respective scopes of practice; any lawful practice entity of such health care practitioners; a hospital;²³ a home care services agency;²⁴ or a hospice;²⁵ unless the term is otherwise defined by law with respect to the provision in which it is used.²⁶

The 2015 law replaces “health care provider” with “telehealth provider” and refer to “telehealth” rather than “telemedicine or telehealth.”²⁷

The term “Telehealth Provider” is defined to include physicians, physician assistants, dentists, nurse practitioners, registered professional nurses (only to receive patient-specific health information or medical data for remote patient monitoring), podiatrists, optometrists, psychologists, social workers, speech language pathologists or audiologists, midwives, certified diabetes educators, certified asthma educators, certified genetic counselors, hospitals, home care services agencies, hospices, or other providers determined by the commissioner pursuant to regulation.²⁸ The effect is to remove certain licensed practitioners and to add others.

Distant site. The term “distant site” means a site at which a telehealth provider is located while delivering health care services by means of telehealth.²⁹

Originating site. The term “originating site” means a site at which a patient is located at the time health care services are

²² *Id.* (to be codified at N.Y. PUB. HEALTH LAW § 2999-cc(5)).

²³ *See* N.Y. PUB. HEALTH LAW § 2801(1) (McKinney 2015) (defining hospital).

²⁴ *See id.* at § 3602(2) (defining home care services agency).

²⁵ *See id.* at § 4002(1) (defining hospice).

²⁶ N.Y. PUB. HEALTH LAW § 2(1)(p) (McKinney 2014) (repealed 2015).

²⁷ Act of Mar. 13, 2015, ch. 6, § 2, 2015 N.Y. Laws (A. 2552-A).

²⁸ *Id.* (to be codified at N.Y. PUB. HEALTH LAW § 2999-cc(2)).

²⁹ *Id.* (to be codified at N.Y. PUB. HEALTH LAW § 2999-cc(1)).

delivered to him or her by means of telehealth.³⁰

The 2015 law limits “Originating Sites” to facilities licensed by Articles 28 and 40 of the New York Public Health Law, facilities as defined in Subdivision 6 of Section 1.03 of the New York Mental Hygiene Law, private physician’s offices in New York State, and, for remote monitoring, the patient’s residence in New York State or the patient’s temporary location inside or outside the state.³¹

The 2015 law also includes two definitions that were not included in the 2014 legislation:

“Store and forward technology” means the asynchronous, electronic transmission of a patient’s health information in the form of patient-specific digital images and/or pre-recorded videos from a provider at an originating site to a telehealth provider at a distant site.³²

“Remote patient monitoring” means the use of synchronous or asynchronous electronic information and communication technologies to collect personal health information and medical data from a patient at an originating site that is transmitted to a telehealth provider at a distant site for use in the treatment and management of medical conditions that require frequent monitoring. Such conditions shall include, but are not limited to, congestive heart failure, diabetes, chronic obstructive pulmonary disease, wound care, polypharmacy, mental or behavioral problems, and technology-dependent care such as continuous oxygen, ventilator care, total parenteral nutrition or enteral feeding. Remote patient monitoring shall be ordered by a physician, . . . a nurse practitioner, . . . or a midwife . . . with

³⁰ *Id.* (to be codified at N.Y. PUB. HEALTH LAW § 2999-cc(3)).

³¹ *Id.*

³² *Id.* (to be codified at N.Y. PUB. HEALTH LAW § 2999-cc(6)); *see also Store and Forward*, NORTHEAST TELEHEALTH RESOURCE CENTER, <http://netrc.org/types-of-telehealth/#Store-and-forward> (last visited Aug. 1, 2015) (“When a patient and their provider do not have to interact in real-time, store and forward technologies may be a perfect solution. Using options that range from simple software to complex stand alone devices that are integrated into an electronic medical record, digital images can be captured and then shared with the distant provider at a different location or at a later time. For example, common uses of store and forward technology include: dermatology, diabetic retinopathy, radiology, pathology, wound care and dentistry.”).

which the patient has a substantial and ongoing relationship.³³

Thus, the term is expressly limited to patients requiring frequent monitoring, which may only be ordered by a specified telehealth provider with whom the patient has a substantial and ongoing relationship.

Monitoring programs can collect a wide range of health data from the point of care, such as vital signs, weight, blood pressure, blood sugar, blood oxygen levels, heart rate, and electrocardiograms. This data is then transmitted to health professionals in facilities such as monitoring centers in primary care settings, hospitals and intensive care units, skilled nursing facilities, and centralized off-site case management programs. Health professionals monitor these patients remotely and act on the information received as part of the treatment plan. Monitoring programs can also help keep people healthy, allow older and disabled individuals to live at home longer and avoid having to move into skilled nursing facilities. RPM can also serve to reduce the number of hospitalizations, readmissions, and lengths of stay in hospitals—all of which help improve quality of life and contain costs.³⁴

According to the National Broadband Plan drafted by the Federal Communications Commission (FCC), the use of remote patient monitoring technology in conjunction with electronic health records (EHR) could save the health care industry \$700 billion over fifteen to twenty years.³⁵

The equipment that the patient uses typically includes sensors on a device or an interface to the patient to share input with the provider. In all cases, the data obtained by the monitoring equipment is transferred to a central location where it is evaluated by a healthcare professional and/or a clinical decision support algorithm. Necessary follow-up based on the clinical data is then ensured. New applications of the equipment include units that allow for interactive video-conferencing as well as interfaces for communication between the provider and patient. This

³³ Act of Mar. 13, 2015 § 2 (to be codified at N.Y. PUB. HEALTH LAW § 2999-cc(7)).

³⁴ *Remote Patient Monitoring*, CENTER FOR CONNECTED HEALTH POL'Y, <http://cchpca.org/remote-patient-monitoring> (last visited Aug 1, 2015).

³⁵ *Remote Patient Monitoring (RPM) Definition*, TECHTARGET.COM, <http://searchhealthit.techtargget.com/definition/remote-patient-monitoring-RPM> (last visited Aug 1, 2015).

communication may include: medication reminders or sharing of educational materials.³⁶

“Such services can be used to supplement the use of visiting nurses.”³⁷

B. Other Definitions of Telemedicine, Telehealth, & mHealth

A study cited by the WHO found 104 peer-reviewed definitions of the word telemedicine.³⁸ The WHO adopted a broad description:

The delivery of health care services, where distance is a critical factor, by all health care professionals using information and communication technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation, and for the continuing education of health care providers, all in the interests of advancing the health of individuals and their communities.³⁹

A 2015 study found enormous variations between the definitions of telehealth and telemedicine used in different states.⁴⁰ Another recent study discusses seven different

³⁶ *Patient Monitoring*, NE. TELEHEALTH RESOURCE CENTER, <http://netrc.org/types-of-telehealth/#Patient-Monitoring> (last visited Aug. 1, 2015).

³⁷ *What is Telemedicine?*, *supra* note 18.

³⁸ WHO TELEMEDICINE, *supra* note 6, at 8.

³⁹ *Id.* at 9 (quoting WORLD HEALTH ORG., A HEALTH TELEMATICS POLICY IN SUPPORT OF WHO'S HEALTH-FOR-ALL STRATEGY FOR GLOBAL HEALTH DEVELOPMENT: REPORT OF THE WHO GROUP CONSULTATION ON HEALTH TELEMATICS 10 (1998)).

⁴⁰ See Rebecca Cerny, *Terminological Analysis for Telehealth and Telemedicine*, 20 N.Y. ST. BAR ASS'N HEALTH L.J. 55, 56 (2015) (“Telemedicine definitions tended to be more specific than the definitions for telehealth. Twenty-five of the 44 states that define telemedicine include a reference to telemedicine being related to the delivery of health care services or related to patient-doctor contact. Twenty of those states specifically mention the health care services being related to the diagnosis or treatment of a patient and Delaware, Florida, and New York each make reference to this by stating that telemedicine involves clinical health care. Of the 25 states that provide definitions for telehealth, 15 tended to define the term as being broader than the generalized scope of telemedicine. While the majority of states limited telemedicine to diagnosis and treatment, 12 of the states specifically expanded telehealth to include those purposes in addition to others, including continuing professional education, public health, and administrative and program planning. All 50 states have a definition for either telehealth or telemedicine but only 20 of the states have a definition for both. Nine states define the terms

definitions of telehealth in current use by different agencies of the U.S. government.⁴¹

Obviously, it would be helpful to have more uniform definitions. A bill introduced in the U.S. House in December 2013, the *Telehealth Modernization Act*,⁴² sought to establish a uniform federal definition of telehealth, but the bill was not enacted.⁴³

In June 2011, the WHO released a report on mHealth.⁴⁴ The report states:

To date, no standardized definition of mHealth has been established. For the purposes of the survey, the Global Observatory for eHealth (GOe) defined mHealth or mobile health as medical and public health practice supported by mobile devices, such as mobile phones, patient monitoring devices, personal digital assistants (PDAs), and other wireless devices. mHealth involves the use and capitalization on a mobile phone's core utility of voice and short messaging service (SMS) as well as more complex functionalities and applications including general packet radio service (GPRS), third and fourth generation mobile telecommunications (3G and 4G systems), global positioning

as being essentially equivalent to one another. One the other hand, 11 of the states have definitions of the two terms that seem to indicate telehealth as being a broader term than telemedicine. . . . Many states provided definitions for telehealth and telemedicine generally, covering multiple areas of health specialties. Some states, such as Oklahoma and Louisiana, actually have telehealth-specific statutes where they provide these definitions. Other states include the definitions in statutes and regulations covering insurance policies and the medical profession. Thirteen states provide a definition of the terms under more specialized statutes. . . . The largest trend of where definitions were found was within insurance statutes and Medicare guidance's. Nineteen states included a definition of either telehealth or telemedicine within one of these sources.”)

⁴¹ Ashley Gold, *Study: 7 Different Federal Definitions of Telehealth*, FIERCEHEALTH IT (Apr. 2, 2014), <http://www.fiercehealthit.com/story/study-finds-7-different-federal-definitions-telehealth/2014-04-02>.

⁴² H.R. 3750, 113th Cong. (2013).

⁴³ See Susan D. Hall, *Bill Attempts to Clear Up Mishmash of State Laws on Telehealth*, FIERCEHEALTH IT (Dec. 20, 2013), <http://www.fiercehealthit.com/story/bill-attempts-clear-mishmash-state-laws-telehealth/2013-12-20> (last visited Aug. 1, 2015) (discussing the Telehealth Modernization Act); see also *H.R. 3750 (113th): Telehealth Modernization Act*, GOVTRACK.US, <https://www.govtrack.us/congress/bills/113/hr3750> (indicating that the Act was not enacted).

⁴⁴ WORLD HEALTH ORG., MHEALTH: NEW HORIZONS FOR HEALTH THROUGH MOBILE TECHNOLOGIES (2011) [hereinafter MHEALTH: NEW HORIZONS], available at http://www.who.int/goe/publications/goe_mhealth_web.pdf.

system (GPS), and Bluetooth technology.⁴⁵

A key to the development of mHealth is that mobile phones are becoming increasingly ubiquitous, all over the world.⁴⁶

Mobile phones are now the most widely used communication technology in the world. They continue to spread at an exponential rate - particularly in developing countries. This expansion provides unprecedented opportunities to apply mobile technology for health. How are mobile devices being used for health around the world? What diverse scenarios can mHealth be applied in and how effective are these approaches? What are the most important obstacles that countries face in implementing mHealth solutions?⁴⁷

The WHO report further notes:

The use of mobile and wireless technologies to support the achievement of health objectives (mHealth) has the potential to transform the face of health service delivery across the globe. A powerful combination of factors is driving this change. These include rapid advances in mobile technologies and applications, a rise in new opportunities for the integration of mobile health into existing eHealth services, and the continued growth in coverage of mobile cellular networks. According to the International Telecommunication Union (ITU), there are now over five billion wireless subscribers; over 70% of them reside in low- and middle-income countries. The GSM Association reports commercial wireless signals cover over 85% of the world's population, extending far beyond the reach of the electrical grid.⁴⁸

The report surveyed fourteen categories of mHealth services: "health call centres, emergency toll-free telephone services, managing emergencies and disasters, mobile telemedicine, appointment reminders, community mobilization and health promotion, treatment compliance, mobile patient records, information access, patient monitoring, health surveys and data

⁴⁵ *Id.* at 6.

⁴⁶ *mHealth – Mobile Health Technologies*, NAT'L INST. OF HEALTH, http://obssr.od.nih.gov/scientific_areas/methodology/mhealth/ (last visited Aug. 1, 2015).

⁴⁷ *New Horizons for Health Through Mobile Technologies*, WORLD HEALTH ORG. (June 7, 2011), http://www.who.int/goe/publications/ehealth_series_vol3/en/.

⁴⁸ MHEALTH: NEW HORIZONS, *supra* note 45, at 1.

collection, surveillance, health awareness raising, and decision support systems.”⁴⁹ “The four most frequently reported mHealth initiatives were: health call centres (59%), emergency toll-free telephone services (55%), managing emergencies and disasters (54%), and mobile telemedicine (49%). Most mHealth programmes are in the pilot or informal stage.”⁵⁰ “[T]he survey found that results-based evaluation of mHealth implementations is not routinely conducted. Only 12% of Member States reported evaluating mHealth services. A concerted effort needs to be made to promote the importance of evaluation and the sharing of results with all Member States.”⁵¹

The survey found that the dominant form of mHealth today consisted of “small-scale pilot projects that address[ed] single issues in information sharing and access. There were only limited larger mHealth implementations (primarily supported by public-private partnerships).”⁵² “[T]he iPad is an FDA-approved device for reading CTs, ultrasounds, and magnetic resonance imaging (MRI).”⁵³ In September 2014:

The American Telemedicine Association recognize[d] Apple’s new technology including its Health app, HealthKit and Apple Watch as major disruptive innovations in healthcare. The new products demonstrate how advanced telecommunications can be used to transform the delivery of health services by allowing consumers to seamlessly monitor their own health and fitness information, and ultimately share the data with their health providers.⁵⁴

Walgreens, the country’s largest drugstore chain, “is expanding a smartphone application it started testing last December to tablets and personal computers and plans to make it available in 25 states.”⁵⁵

⁴⁹ *Id.* at 2.

⁵⁰ *Id.*

⁵¹ *Id.*

⁵² *Id.*

⁵³ Kamal Jethwani, *Reaction and Discussion*, in *THE ROLE OF TELEHEALTH*, *supra* note 3, at 70, 71.

⁵⁴ *Apple’s New Health Products are Major Disruptive Innovations in Healthcare*, AM. TELEMEDICINE ASS’N (Sept. 9, 2014), <http://www.americantelemed.org/news-landing/2014/09/09/apple-s-new-health-products-are-major-disruptive-innovations-in-healthcare#.VVEZdUtbxg0>.

⁵⁵ Associated Press, *Walgreens, Insurers Push Expansion of Virtual Doctor Visits*, USA TODAY (June 10, 2015, 10:30 AM), <http://www.usatoday.com>

III. BENEFITS OF TELEMEDICINE AND TELEHEALTH

A. *In General*

Proponents argue that patients using telemedicine and telehealth services have “fewer hospitalizations and costly visits to emergency rooms; [have] expanded access to providers; [receive] faster, more convenient and timely treatment[;] [and] better continuity . . . [and] coordination of care; [experience] a reduction of lost work time and travel costs; and [have] the ability to remain within support networks and age in place at home.”⁵⁶

Persons of all ages who suffer from chronic diseases will have the opportunity to stay in their homes longer; abnormal events may be detected before they turn into a hospital visit, and vital signs can be monitored remotely by registered nurses. Moreover, patients can get help with medication adherence, and can be encouraged to take ownership of their own well-being by better understanding the correlation between their choices and their health outcomes. Patients can receive consultations at a provider’s office, not just from that provider, but from practitioners across the state and world.⁵⁷

According to the American Telemedicine Association (ATA): [T]elemedicine has been growing rapidly because it offers four fundamental benefits:

Improved Access – For over forty years, telemedicine has been used to bring healthcare services to patients in distant locations. Not only does telemedicine improve access to patients but it also allows physicians and health facilities to expand their reach, beyond their own offices. Given the provider shortages throughout the world--in both rural and urban areas--telemedicine has a unique capacity to increase service to millions of new patients.

Cost Efficiencies – Reducing or containing the cost of healthcare is

/story/tech/2015/06/10/walgreens- telemedicine/71003728/.

⁵⁶ N.Y. SENATE LEGISLATIVE COMM’N ON RURAL RES., *TELEMEDICINE AND TELEHEALTH: PUTTING THE PIECES TOGETHER* 34 (2012), *available at* <http://www.nysenate.gov/files/pdfs/Telemedicine%20and%20Telehealth%20Report.pdf>.

⁵⁷ *Id.*

one of the most important reasons for funding and adopting telehealth technologies. Telemedicine has been shown to reduce the cost of healthcare and increase efficiency through better management of chronic diseases, shared health professional staffing, reduced travel times, and fewer or shorter hospital stays.

Improved Quality – Studies have consistently shown that the quality of healthcare services delivered via telemedicine are as good those given in traditional in-person consultations. In some specialties, particularly in mental health and ICU care, telemedicine delivers a superior product, with greater outcomes and patient satisfaction.

Patient Demand – Consumers want telemedicine. The greatest impact of telemedicine is on the patient, their family and their community. Using telemedicine technologies reduces travel time and related stresses for the patient. Over the past fifteen years study after study has documented patient satisfaction and support for telemedical services. Such services offer patients the access to providers that might not be available otherwise, as well as medical services without the need to travel long distances.⁵⁸

Telehealth also promotes patient-centered health care, by promoting and improving patient-centered services: patient-provider communications; patient self-management with provider feedback; health literacy; medication management; provider-provider consultants; and changes in health and lifestyle behavior.⁵⁹

“The biggest need in home- and community-based care relates to chronic disease. The one hundred million Americans with chronic disease account for about 75 percent of health care expenditures.”⁶⁰ “Use of technologies for chronic disease care management has been associated with reductions in hospitalizations, readmissions, lengths of stay, and costs; improvement in some physiologic measures; high rates of satisfaction; and better adherence to medication.”⁶¹

⁵⁸ *What is Telemedicine?*, *supra* note 18.

⁵⁹ *Why is Telehealth Important for Rural Providers*, HEALTHIT.GOV, <http://www.healthit.gov/providers-professionals/faqs/why-telehealth-important-rural-providers> (last visited Aug. 1, 2015).

⁶⁰ Thomas S. Nesbitt, *The Evolution of Telehealth: Where Have We Been and Where Are We Going?*, in THE ROLE OF TELEHEALTH, *supra* note 3, at 11, 12.

⁶¹ *Id.*

The United Kingdom Department of Health's Whole System Demonstrator (WSD) was launched in May 2008.⁶² "It is the largest randomized control trial of telehealth and telecare in the world, involving 6191 patients and 238 [general medical] practices . . ." ⁶³ Three thousand and thirty people with diabetes, chronic heart failure and chronic obstructive pulmonary disease were included in the trial.⁶⁴ The trial showed a 45% reduction in mortality rates; a 20% reduction in emergency admissions; a 15% reduction in Accident and Emergency visits; a 14% reduction in elective admissions; a 14% reduction in bed days and an 8% reduction in tariff costs.⁶⁵

B. Implementation of The Affordable Care Act

One of the major goals of the Affordable Care Act (ACA)⁶⁶ is to reduce the number of Americans who are uninsured or underinsured.⁶⁷ "The importance of telehealth and its potential will continue to grow, especially as more and more people in rural and isolated areas across the United States are able to seek a full complement of health care services as a result of some of ACA provisions."⁶⁸ As the WHO noted:

⁶² U.K. DEP'T OF HEALTH, WHOLE SYSTEM DEMONSTRATOR PROGRAMME (2011), available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/215264/dh_131689.pdf.

⁶³ *Id.*

⁶⁴ *Id.*

⁶⁵ *See id.* ("At least three million people with Long Term Conditions and/or social care needs could benefit from using telehealth and telecare."). Additionally, "[t]he key is to integrate these technologies into the care and services that are delivered." *Id.* The project defines "Long Term Condition" as "any health condition that cannot at present be cured, but can be managed with medicines and/or therapy. This includes conditions such as diabetes, heart failure, COPD, arthritis, [and] depression." *Id.* "Telehealth" is defined as "electronic sensors or equipment that monitors vital health signs remotely, e.g. in your own home or while on the move. These readings are automatically transmitted to an appropriately trained person who can monitor the health vital signs and make decisions about potential interventions in real time, without the patient needing to attend a clinic." *Id.* "Telecare" is defined as "[p]ersonal and environmental sensors in the home that enable people to remain safe and independent in their own home for longer. 24 hour monitoring ensures that should an event occur the information is acted upon immediately and the most appropriate response put in train." *Id.*

⁶⁶ *See supra*, note 1 and accompanying text.

⁶⁷ *Affordable Care Act Summary*, OBAMACARE FACTS, <http://obamacarefacts.com/affordablecareact-summary/> (last visited Aug. 1, 2015).

⁶⁸ Wakefield, *supra* note 12, at 6.

Information and communication technologies (ICTs) have great potential to address some of the challenges faced by both developed and developing countries in providing accessible, cost-effective, high-quality health care services. Telemedicine uses ICTs to overcome geographical barriers, and increase access to health care services. This is particularly beneficial for rural and underserved communities in developing countries – groups that traditionally suffer from lack of access to health care.⁶⁹

In March 2014, The Department of Health and Human Services released a coverage report regarding enrollees under the ACA.⁷⁰ The report stated that 4.2 million people had selected health care exchange plans during the time period from October 1, 2013 to March 1, 2014.⁷¹ “Ironically, just when the country is increasing its numbers of people with health insurance, the United States is experiencing a dearth of primary care physicians amongst a growing aging population[.] A suggested approach to this problem involves the use of the terms telemedicine, telehealth, and mHealth”⁷²

One major problem is a shortage of qualified providers.

We are at the perfect storm of health care: If we are to move forward in implementation of the ACA, if we are to address current workforce shortages in rural America, if we are to address quality and disparities, we have no other option than the use of telehealth as a clinical tool. The barrier to the implementation of telehealth is no longer the technology, as it was 20 years ago. Instead, the barriers remain in the rules, regulations, and guidelines that we have imposed. The National Rural Health Association (NRHA) focuses on four key policy areas to advance telehealth: reimbursement, credentialing, broadband and infrastructure, and research.⁷³

According to the 2014 Telemedicine Survey of healthcare

⁶⁹ WHO TELEMEDICINE, *supra* note 6, at 6.

⁷⁰ Press Release, U.S. Dep’t of Health & Human Servs., Enrollment in the Health Insurance Marketplace Climbs to 4.2 Million in February (Mar. 11, 2014), <http://www.hhs.gov/news/press/2014pres/03/20140311a.html>.

⁷¹ *Id.*

⁷² Claudia O. Torrey, *For Your Information*, 20 N.Y. ST. BAR ASS’N HEALTH L.J. 23, 23 (2015).

⁷³ Alan Morgan, *National Rural Health Association*, in THE ROLE OF TELEHEALTH, *supra* note 3, at 115, 115.

executives, “[t]he vast majority of leaders (90 percent) report that their organizations have already begun developing or implementing a telemedicine program. Most also say that offering meaningful telemedicine services will be critical to the future success of their organizations.”⁷⁴ “A majority of respondents offer remote monitoring (64%), store and forward technology (54%), and real-time interaction capabilities (52%). Additionally, 39 percent say they have services that qualify as mHealth — patient-driven apps and online portals.”⁷⁵

There is also a shift in financial and payment incentives under the ACA.

As health care providers move from a fee-for-service model to one that reimburses based on positive patient outcomes, providers bear a greater share of the risk — and potential reward — for keeping their patients healthy. In addition, the level of responsibility shifts even more for providers in risk-bearing contracts or capitated arrangements, in which payments are made per person rather than per service. For executives under pressure to find cost-effective methods of engagement with their patients, telemedicine offers ways to streamline operations and create multiple touch points with patients, making it one of the most reliable methods for transitioning to a post-ACA, forward-looking reimbursement model.⁷⁶

The respondents to a 2014 survey of healthcare executives discussed some major barriers to the widespread implementation of telemedicine.⁷⁷ First, doctors must be willing to transform the

⁷⁴ Nathaniel M. Lactman & Lawrence W. Vernaglia, *2014 Telemedicine Survey Executive Summary*, FOLEY & LARDNER LLP (Nov. 11, 2014), <http://www.foley.com/2014-telemedicine-survey-executive-summary/>.

⁷⁵ *Id.*; see also Wakefield, *supra* note 12, at 7 (“Telehealth has already started to play an even more important role, especially as we move away from the traditional fee for service system and toward new models of care, including accountable care organizations (ACOs), patient-centered medical homes (PCMHs), and other strategies that focus on outcomes. At the same time, the costs of telehealth technologies are dropping and becoming even easier to use. These technologies are becoming more widely prevalent in the marketplace, more accessible, and consequently, can be adopted more easily than perhaps 5 or 10 years ago. The pace of technological innovation is accelerating, but the cost of innovation is falling.”).

⁷⁶ Lactman & Vernaglia, *supra* note 74.

⁷⁷ *Id.*

way they interact with their patients.⁷⁸ Second, the traditional fee-for-service environment makes it difficult to be paid for telemedicine: “41 percent of respondents . . . said that they are not reimbursed at all for telemedicine services, and 21 percent . . . reported receiving lower rates from managed care companies for telemedicine than for in-person care.”⁷⁹ Third, healthcare executives are concerned with convincing doctors about the credibility of telemedicine.⁸⁰ “This uncertain environment led 87 percent of respondents to report that they do not believe a majority of their patients will be using any of their organization’s telemedicine services three years from now. Almost one-quarter said they anticipated fewer than 10 percent of their patients utilizing their organization’s services.”⁸¹

Another problem is that:

[S]ignificant gaps in access to broadband remain, particularly among rural and underserved populations. Access to broadband is also necessary for other community and individual needs in education and training, economic development, and government. Major public health issues impact rural communities and their economic development, in part due to a lack of access to health care services. Telehealth technologies play a major role in helping individuals and their health care providers to better manage health.⁸²

One recent article reports that: “[t]he literature cites several reasons for the limited use of telehealth. Common explanations include the lack of universal private pay coverage, thereby discouraging capital investment in telehealth; interstate licensure issues; nonuniform engineering standards; confidentiality and liability concerns; and, in some cases, a perceived lack of need for telehealth services.”⁸³

⁷⁸ *Id.*

⁷⁹ *Id.*

⁸⁰ *Id.*

⁸¹ *Id.*

⁸² Dale C. Alverson, *Broadband Connectivity*, in THE ROLE OF TELEHEALTH, *supra* note 3, at 21, 21.

⁸³ Matlin Gilman & Jeff Stensland, *Telehealth and Medicare: Payment Policy, Current Use, and Prospects for Growth*, 3 MEDICARE & MEDICAID RES. REV. E1, E3 (2013), available at https://www.cms.gov/mmrr/Downloads/MMRR2013_003_04_a04.pdf.

C. *The Role of the Federal Government*

The Department of Health and Human Services (HHS), largely through its Health Resources Services Administration (HRSA), has become increasingly involved in telehealth.⁸⁴

HRSA works to increase and improve the use of telehealth to meet the needs of underserved people by: [f]ostering partnerships within HRSA, and with other Federal agencies, states and private sector groups to create telehealth projects[;] [a]dministering telehealth grant programs[;] [p]roviding technical assistance[;] [e]valuating the use of telehealth technologies and programs[;] [d]eveloping telehealth policy initiatives to improve access to quality health services[;] [and] [p]romoting knowledge exchange about “best telehealth practices.”⁸⁵

Through the Office for the Advancement of Telehealth, HRSA has established grant programs to support the development and expansion of telehealth, including a focus on licensure portability.⁸⁶ This includes supporting state professional licensing boards to develop and implement policies designed to reduce the statutory and regulatory barriers to telehealth.⁸⁷

HRSA’s Office of Rural Health Policy (ORHP) has an initiative, the “Flex Rural Veterans Health Access Program,” which uses telehealth to increase access to mental health care services for veterans returning to rural homes.⁸⁸

The Veterans Health Administration is the “largest telehealth system in the United States, providing care to more than 600,000 patients remotely, reaching many in rural areas who would otherwise face difficulty accessing care.”⁸⁹ “[I]ts national

⁸⁴ Wakefield, *supra* note 12, at 8.

⁸⁵ *Telehealth*, U.S. DEP’T OF HEALTH & HUM. SERVICES, <http://www.hrsa.gov/ruralhealth/about/telehealth/> (last visited Aug. 1, 2015).

⁸⁶ *Id.*

⁸⁷ *Id.*

⁸⁸ Leila Samy & Tom Morris, *ONC and ORHP: Working to Help Rural Health Providers Leverage Health IT to Improve Quality and Fuel Economic Development*, HEALTH IT BUZZ (Nov. 21, 2013, 8:55 AM), <http://www.healthit.gov/buzz-blog/rural-health/onc-orhp-rural-health/>.

⁸⁹ Lawrence J. Korb & Katherine Blakeley, *Caring for Those Who Serve: Key Facts About the Veterans Affairs’ Health System in the Wake of the Waitlist Allegations*, CENTER FOR AM. PROGRESS (May 23, 2014), <https://www.americanprogress.org/issues/military/news/2014/05/23/90380/carin-g-for-those-who-serve-key-facts-about-the-veterans-administration-health-system-in-the-wake-of-the-waitlist-allegations/>.

telehealth programs accounted for more than 2 million telehealth visits during fiscal year 2014.”⁹⁰ This represents more than 690,000 veterans, 12% of the overall veteran population.⁹¹

IV. EFFECTIVE TELEHEALTH & TELEMEDICINE SERVICES

A 2013 article noted that:

The Agency for Healthcare Research and Quality assessed the body of literature on the efficacy of telehealth for the Medicare population, and found that telehealth was most effective for specialties that rely on verbal interactions and not necessarily physical contact, including mental health and neurology. For such specialties, care provided through telehealth can probably achieve results comparable to care provided in person. There was mixed or limited evidence on the efficacy of telehealth in other specialties, including dermatology, ophthalmology, and wound care.⁹²

“Hospital-based telemedicine is growing quickly in two areas: stroke care and care in the intensive care unit (ICU).”⁹³ “Tele-emergency care and tele-ICU care represent other opportunities for a specialist to consult with another practitioner who is attending to a patient.”⁹⁴

A 2009 study examined the literature on telemental health and concluded that:

⁹⁰ Fred Pennic, *New York Signs Telehealth Reimbursement Bill*, HIT CONSULTANT (Jan. 13, 2015), <http://hitconsultant.net/2015/01/13/new-york-signs-telehealth-reimbursement-bill/>.

⁹¹ *Id.*

⁹² Gilman & Stensland, *supra* note 83, at E2.

⁹³ Nesbitt, *supra* note 60, at 14; *see also* Lee H. Schwamm, *Using Data to Change Policies and Create New Standards of Care*, in THE ROLE OF TELEHEALTH, *supra* note 3, at 66, 68 (“Telestroke is a cost-effective, sustainable way to allow smaller hospitals with limited neurology coverage to provide equitable access to high-quality stroke care.”).

⁹⁴ Jeff Stensland, *Medicare*, in THE ROLE OF TELEHEALTH, *supra* note 3, at 31, 33; *see also* Gilman & Stensland, *supra* note 83, at E4–E5 (“Tele-emergency care . . . makes emergency medicine expertise and support available to patients and practitioners at small rural hospitals. One potential reason for expansion of the tele-emergency care in small rural hospitals is the rapid conversion of small rural hospitals to critical access hospital status from 1999 to 2006. . . . Some rural emergency departments are using telehealth for rapid consultation with emergency care specialists at distant sites. . . . [Research] findings suggest that tele-emergency care may improve appropriateness of care through improving access to specialists at trauma centers and may also save money through avoiding expensive transports.”).

[T]he treatment of many mental health conditions through telehealth can achieve clinical outcomes comparable to those achieved when the same treatments are provided face-to-face On all outcome measures (functioning, hospital admissions, and mental health severity scores), telehealth achieved clinical outcomes equivalent to those achieved through face-to-face care. In addition, patient satisfaction was similar between the groups.⁹⁵

“Recent studies show strong evidence of clinical benefit and savings with increased use of telehealth in nursing homes, and that families and nursing home personnel were very positive about the use of telepsychiatry for geropsychiatric care.”⁹⁶ Other successful services include teleradiology, telepathology and telepharmacology.⁹⁷

According to the Commonwealth Fund,

“Electronic consultation (e-consultation) is an emerging tool that primary care clinicians can use to communicate with specialists about patients asynchronously—that is, at different times that are convenient for each physician. To conduct an e-consultation, clinicians use either a Web-based program or a shared electronic medical record. Early adopters of e-consultation describe positive experiences for patients, clinicians, and health systems, including improved continuity of care, access to specialists, convenience, and information transfer. E-consultation presents opportunities to improve health care quality and reduce specialty care costs, but

⁹⁵ Gilman & Stensland, *supra* note 83, at E3.

⁹⁶ Nesbitt, *supra* note 60, at 15; *see also* David C. Grabowski & A. James O’Malley, *Use of Telemedicine Can Reduce Hospitalizations of Nursing Home Residents and Generate Savings For Medicare*, 33 HEALTH AFFAIRS 244, 244 (2014) (“Hospitalizations of nursing home residents are frequent and result in complications, morbidity, and Medicare expenditures of more than a billion dollars annually. The lack of a physician presence at many nursing homes during off hours might contribute to inappropriate hospitalizations. Findings from our controlled study of eleven nursing homes provide the first indications that switching from on-call to telemedicine physician coverage during off hours could reduce hospitalizations and therefore generate cost savings to Medicare in excess of the facility’s investment in the service. But those savings were evident only at the study nursing homes that used the telemedicine service to a greater extent, compared to the other study facilities.”).

⁹⁷ Nesbitt, *supra* note 60, at 13–14; *see also* Gilman & Stensland, *supra* note 83, at E3 (“[C]onsulting pharmacists supervise remote pharmacy technicians in rural pharmacies and hospitals. . . . The Commonwealth Fund conducted a report on North Dakota’s experience with telepharmacy and found that telepharmacy extended access to patients in their rural communities and was economically sustainable.”).

dissemination will be limited unless incentives are created and clinicians are encouraged to use e-consultation through financial reimbursement.”⁹⁸

The ACA introduced the concept of the Patient-Centered Medical Home (PCMH).⁹⁹ “The Agency for Healthcare Research and Quality recognizes that revitalizing the Nation’s primary care system is foundational to achieving high-quality, accessible, efficient health care for all Americans. The primary care medical home . . . is a promising model for transforming the organization and delivery of primary care.”¹⁰⁰

In Arkansas:

The Antenatal and Neonatal Guidelines, Education and Learning System (ANGELS) links clinicians and patients across the State with the University of Arkansas for Medical Sciences The program has enhanced access to specialty perinatal care, . . . which, in turn, has reduced complications, generated cost savings to the State Medicaid program, and led to high levels of patient satisfaction. . . . The ANGELS program has been replicated by organizations in Tennessee and Louisiana.¹⁰¹

⁹⁸ KATHRYN HORNER ET AL., ED WAGNER AND JIM TUFANO, ELECTRONIC CONSULTATIONS BETWEEN PRIMARY AND SPECIALTY CARE CLINICIANS: EARLY INSIGHTS 1 (2011) *available at* http://www.commonwealthfund.org/~media/Files/Publications/Issue%20Brief/2011/Oct/1554_Horner_econsultations_primary_specialty_care_clinicians_ib.pdf.

⁹⁹ Press Release, U.S. Dep’t of Health & Human Servs., The Affordable Care Act Supports Patient-Centered Medical Homes in Health Centers (Aug. 26, 2014), <http://www.hhs.gov/news/press/2014pres/08/20140826a.html>.

¹⁰⁰ *Welcome to the PCMH Resource Center*, AGENCY FOR HEALTHCARE RES. & QUALITY, <http://pcmh.ahrq.gov/> (last visited Aug. 1, 2015); *see also* Stephen W. North et al., *Improving Access to Care Through the Patient-Centered Medical Home*, 43 PEDIATRIC ANNALS e33, e33 (2014) (“The expansion of telehealth technologies allows the creation of solutions to decrease geographic barriers that have limited the growth of SBHCs in rural communities. Telehealth school-based health centers (tSBHCs) that exclusively provide services through telemedicine are operating and developing in communities where geographic barriers and financial challenges have prevented the establishment of brick and mortar SBHCs . . . Understanding the role of tSBHCs in the growth of the PCMH model is critical for using these tools to continue to improve child and adolescent health.”); Cynthia Napier Rosenberg et al., *Results From A Patient-Centered Medical Home Pilot At UPMC Health Plan Hold Lessons For Broader Adoption Of The Model*, 31 HEALTH AFFAIRS 2423, 2423 (2012) (“We suggest approaches that could spur the adoption and spread of the model, including . . . that telehealth be instituted to connect care managers to patients and practices when in-person visits are not possible or necessary.”).

¹⁰¹ *Statewide Telehealth Program Enhances Access to Care, Improves*

Telehealth has also improved access and quality of care for Alaska natives, through Alaska's Tribal Health System (ATHS), "a coalition of . . . tribal organizations that provide health care services to . . . approximately 140,000 Alaska Natives, more than one-half of whom live in rural and frontier Alaska."¹⁰²

We estimate that, in 2012, the telehealth program saved the state of Alaska \$8.5 million in travel costs for Medicaid patients alone. Cumulatively, for all patients, we have a conservative estimate that telehealth has saved the state a total of \$38 million since 2003. The need to travel was eliminated in 75 percent of patients involved in specialty telehealth consultations and in 25 percent of patients involved in primary care telehealth consultations.¹⁰³

In Mississippi, which "has the highest rate of adult diabetes in the country[.]."¹⁰⁴

Mississippi Gov. Phil Bryant is hoping to better control the state's diabetes epidemic with a new telehealth initiative, . . . a public-private partnership will treat at-risk patients in underserved areas.

Using tablets connected to the internet, patients will be able to share data on blood pressure, glucose levels and weight, then talk via phone or video chat with University of Mississippi Medical Center clinicians in Jackson through the Intel-GE platform.¹⁰⁵

Outcomes for High-Risk Pregnancies in Rural Areas, AGENCY FOR HEALTHCARE RES. & QUALITY, <https://innovations.ahrq.gov/profiles/statewide-telehealth-program-enhances-access-care-improves-outcomes-high-risk-pregnancies> (last visited Aug. 1, 2015).

¹⁰² Innovations Exch. Team, *Telehealth Improves Access and Quality of Care for Alaska Natives*, AGENCY FOR HEALTHCARE RES. & QUALITY (May, 22, 2013), <https://innovations.ahrq.gov/perspectives/telehealth-improves-access-and-quality-care-alaska-natives>.

¹⁰³ *Id.*; see also Wakefield, *supra* note 12, at 6 ("Rural communities tend to be older, have people with lower incomes, and have higher rates of certain chronic diseases. Rural areas have particular challenges with attracting and retaining health care providers, and some of the smallest hospitals today operate on the thinnest of margins. All of this creates additional barriers for rural populations to obtain health care services in real time. Telehealth applications can be part of the solution.").

¹⁰⁴ Anthony Brino, *State Pins Hopes on Telehealth to Curb Diabetes Epidemic*, HEALTHCARE PAYER NEWS (Jan. 27 2014), <http://www.healthcarepayernews.com/content/state-pins-hopes-telehealth-curb-diabetes-epidemic#.VRb10010w2w>.

¹⁰⁵ *Id.*

V. INSURANCE COVERAGE OF TELEHEALTH & TELEMEDICINE

A. *Private Health Insurers in New York*

According to a 2015 report, “[o]ver the past three years the number of states with telemedicine parity laws – that require private insurers to cover telemedicine-provided services comparable to that of in-person – has doubled.”¹⁰⁶

On December 29, 2014, New York Governor Andrew Cuomo signed legislation regarding coverage of telemedicine and telehealth services by private insurance and New York’s Medicaid program.¹⁰⁷ New York thus became the twenty-second state to enact parity legislation “requiring that telehealth visits be reimbursed at the same rate as in-person visits.”¹⁰⁸

The Governor’s Approval Memorandum No. 35 made his approval “contingent on a chapter amendment” addressing his concerns with the bill: “its effective date and that the [statutory] language may obligate insurers to provide coverage for telehealth services . . . even [if] those services are not covered under the patient’s existing contract or policies.”¹⁰⁹ The language of the statute “will be superseded by the chapter amendment if and when it is [enacted].”¹¹⁰ Meanwhile, “the Department of Health

¹⁰⁶ LATOYA THOMAS & GARY CAPISTRANT, STATE TELEMEDICINE GAPS ANALYSIS: COVERAGE & REIMBURSEMENT 4 (Am. Telemedicine Ass’n 2015), *available at* <http://www.americantelemed.org/docs/default-source/policy/50-state-telemedicine-gaps-analysis—coverage-and-reimbursement.pdf>.

¹⁰⁷ *New York Legislative Update: A Review of SB 7852 and Pending Amendments*, NE. TELEHEALTH RESOURCE CENTER (Feb. 5, 2015), <http://netrc.org/wp-content/uploads/2015/02/New-York-Update-02.05.15.pdf>.

¹⁰⁸ Susan D. Hall, *New York Enacts Telehealth Parity Law*, FIERCEHEALTH IT (Jan. 12, 2015), <http://www.fiercehealthit.com/story/new-york-enacts-telehealth-parity-law/2015-01-12>.

¹⁰⁹ *New York Legislative Update*, *supra* note 107; *see also* Approval Memorandum No. 35 from Andrew M. Cuomo filed with Senate Bill 7852 (Dec. 29, 2014), *available at* <http://netrc.org/wp-content/uploads/2015/01/APPROVAL-MEMORANDUM.pdf> (“I fully support the purpose of this bill However, the insurance coverage provisions of the bill, as passed, arguably require providers to cover services delivered via telehealth even if those services are not covered under the patient’s existing contract or policy. The bill’s January 1, 2015 effect date is also not feasible, as it would prevent health insurers from restructuring coverage options and building them into their calendar year 2015 premiums, which have already been approved and are in place.”).

¹¹⁰ *New York Legislative Update*, *supra* note 107.

will not enforce the provisions” of the new law “due to the pending amendment.”¹¹¹ In January 2015, Assembly Bill 2552–A and Senate Bill 2405 (collectively the “2015 law”) were introduced to address the Governor’s concerns,¹¹² and the bills were signed into law on March 13, 2015.¹¹³

As one comment notes:

Although the New York law clearly requires commercial insurers to cover services provided via telemedicine and telehealth, the language of the legislation leaves it [] unclear whether insurers will be required to cover new telehealth services if those services are not currently covered under the health plan policy as in-person services. Some services, such as remote monitoring, do not naturally lend themselves to in-person encounters and are designed to be utilized via telehealth. This issue may be addressed in subsequent rulemaking to reconcile the ambiguity.¹¹⁴

The 2014 New York legislation included new definitions for telemedicine and telehealth, and “attached different coverage requirements to each term for both Medicaid and private payers.”¹¹⁵ In the 2015 law, the separate coverage requirements for each term are eliminated, and insurers are simply required to cover telehealth, as defined in the law.¹¹⁶ The 2014 legislation was stated to be effective January 1, 2015 and to apply to all policies and contracts issued, renewed, modified, altered or amended on or after that date.¹¹⁷ Under the 2015 law, the new effective date is January 1, 2016.¹¹⁸

The 2014 legislation amended several sections of the New York Insurance Law to require coverage, if requested by the policy holder, and for services otherwise covered under the policy, under (1) individual accident and health insurance policies; (2) group or

¹¹¹ *Id.*

¹¹² See *supra*, note 14 and accompanying text; see also Nathaniel M. Lacktman, *Look at What New York Did With Telemedicine to Bring in the New Year*, FOLEY & LARDNER LLP (Jan. 9, 2015), <http://www.foley.com/intelligence/detailpdf.aspx?int=b360410f-f265-429d-beb3-eb8ed5ab4a34> (discussing the practical issues associated with the 2014 legislation).

¹¹³ Act of Mar. 13, 2015, ch. 6, 2015 N.Y. Laws (A. 2552–A).

¹¹⁴ Lacktman, *supra* note 112.

¹¹⁵ Act of Mar. 13, 2015 § 12.

¹¹⁶ *Id.*

¹¹⁷ Act of Dec. 29, 2014, ch. 550, § 7, 2014 N.Y. Laws (S. 7852).

¹¹⁸ Act of Mar. 13, 2015 § 12.

blanket accident and health insurance policies; and (3) contracts issued by a medical expense indemnity corporation, a hospital service corporation, or a health service corporation that, in each case, provide comprehensive coverage for hospital, medical, or surgical care.¹¹⁹ In each case, coverage must be extended to (A) services provided via telemedicine, provided that those services meet the federal Medicare requirements (other than any originating site restriction requirements); or (B) telehealth services, provided that such services are consistent with § 3614-3-c of the New York Public Health Law.¹²⁰ Coverage “may be subject to annual deductibles and coinsurance, and other terms and conditions of coverage, including, but not limited to, utilization management and other managed care tools, as are consistent with those established for the same services when not provided via telemedicine or telehealth.”¹²¹

The 2015 law repeals these provisions¹²² and provides that an insurer may not exclude from coverage a service that is otherwise covered under a comprehensive policy, because the service is delivered via telehealth.¹²³ An insurer may exclude a service by a health care provider who is not otherwise covered under the policy.¹²⁴

With regard to the commercial health plans, the proposed legislation limits the coverage requirement by stating that “an insurer may exclude from coverage a service by a health care provider where the provider is not otherwise covered under the policy.” Therefore, only those individuals that can afford additional out-of-network benefits would be covered for the delivery of health care services by means of telehealth. In application, this may be a critical limitation on the adoption of telehealth because in most, if not all, instances (other than remote monitoring) the telehealth provider would be located in another region of the state or country and not likely a participating provider in the plan’s network. This is a relevant topic directly related to the purpose of and concept behind telehealth [sic].¹²⁵

¹¹⁹ Act of Dec. 29, 2014 §§ 2, 3, 5 (codified as amended at N.Y. INS. LAW §§ 3216(i)(30), 3221(k)(19), 4303(oo) (McKinney 2014)).

¹²⁰ N.Y. INS. LAW § 4303(oo) (McKinney 2014).

¹²¹ *Id.*

¹²² Act of Mar. 13, 2015, ch. 6, §§ 3, 5, 7.

¹²³ *Id.* § 4 (to be codified at N.Y. INS. LAW § 3217-h).

¹²⁴ *Id.*

¹²⁵ Dunham, *supra* note 19.

According to the 2015 law:

An insurer may subject coverage to co-payments, coinsurance or deductibles provided that they are *at least as favorable* to the insured as those established for the same service when not delivered via telehealth. An insurer may [also] subject the coverage . . . to reasonable utilization management and quality assurance requirements that are consistent with those established for the same service when not delivered via telehealth. For this purpose, “telehealth” means the use of electronic information and communication technologies by a health care provider to deliver health care services to an insured individual while such individual is located at a site that is different from the site where the health care provider is located.¹²⁶

The 2015 law also adds a new provision requiring coverage of telehealth services by health maintenance organizations.¹²⁷ Under the 2014 legislation:

[P]rivate insurers would have only been required to cover telemedicine services if requested by the policy holder, and if the service met the requirements of Medicare’s telehealth regulations (with the exception of originating site restrictions). This would have limited reimbursement to live video, and confined coverage to a limited list of providers and CPT codes.¹²⁸

¹²⁶ Act of Mar. 13, 2015 § 4 (to be codified at N.Y. INS. LAW § 3217-h) (emphasis added).

¹²⁷ *Id.* at § 9 (to be codified at N.Y. INS. LAW § 4406-g); *See also* Raul A. Tabora, Jr., *Telehealth and Telemedicine Reimbursement Issues*, 20 N.Y. ST. BAR ASS’N HEALTH L.J. 24, 32 (2015) (“Unless the agencies administering Medicare and Medicaid provide for specific standards in this area, much of the legislation, regulation and issuances described above may become irrelevant under a managed care environment.”). The enactment of parity provisions in this area will likely prevent such a result; however, there is still a great degree of ambiguity on how telehealth and telemedicine will be paid across the industry. *See* Tabora, *supra*, at 32 (“With regard to managed care and health maintenance organizations in general, there is no single widely-accepted standard for private payers In a letter dated July 1, 2014 to the National Association of Insurance Commissioners, the [American Telemedicine Association] provided some suggestions to ensure proper consideration of telehealth and telemedicine in the context of managed care and HMO oversight.”).

¹²⁸ *New York Legislative Update*, *supra* note 107.

The 2015 law, however, removes these requirements¹²⁹ and “clarifies that an insurer may exclude from coverage a service by a health care provider where the provider is not otherwise covered under the policy.”¹³⁰

According to one comment:

Although the new law casts a wide net with respect to the definition of eligible providers, it will be interesting to see how insurers reconcile this with Medicare’s more restrictive scope, since many of the telemedicine services covered under the New York law, including dental, podiatric, optometry and home health services, are not covered under Medicare.¹³¹

Another comment notes that:

[W]hat I like most is that this new law appears to strike down Medicare’s site requirements, which most people view as overly conservative and cumbersome. Many of the telemedicine services Medicare offers reimbursement for come attached to requirements for being rural, for example, ignoring scenarios such as: What if someone lives in an urban environment but is bed-ridden with no form of transportation to a medical center aside from an ambulance? What if a patient lives in the suburbs with only limited access to public transportation and medical issues that preclude long bus rides? Not only are the site requirements denying access to care for many disabled and elderly policy holders, but also increase costs for perfectly able policy holders (time off work, gas or fares), providers (fewer patients seen, office or ER overhead, costs for occupied beds, ambulance costs), and insurers by extension. The site restriction may not be the most celebrated feature of the law, but I believe long term, it will be as important as the parity portion.¹³²

¹²⁹ See Act of Mar. 13, 2015 § 3 (repealing N.Y. INS. LAW § 3216(i)(30)).

¹³⁰ *New York Legislative Update*, *supra* note 107.

¹³¹ Nili S. Yolin, *New York Passes Telemedicine Reimbursement Legislation*, HEALTH L. & POL’Y MATTERS (Jan. 15, 2015), <http://www.healthlawpolicymatters.com/2015/01/15/new-york-passes-telemedicine-reimbursement-legislation/>.

¹³² John Robinson, *New York joins the Telemedicine Party . . . er, Parity*, SWYMED (Jan. 14, 2015), <http://swymedical.swyme.com/new-york-joins-tele-medicine-party-er-parity/>.

B. Medicaid

According to the Centers for Medicare and Medicaid Services (CMS):

For purposes of Medicaid, telemedicine seeks to improve a patient's health by permitting two-way, real time interactive communication between the patient, and the physician or practitioner at the distant site. This electronic communication means the use of interactive telecommunications equipment that includes, at a minimum, audio and video equipment. Telemedicine is viewed as a cost-effective alternative to the more traditional face-to-face way of providing medical care (e.g., face-to-face consultations or examinations between provider and patient) that states can choose to cover under Medicaid. This definition is modeled on Medicare's definition of telehealth services (42 CFR 410.78). Note that the federal Medicaid statute does not recognize telemedicine as a distinct service.¹³³

According to a 2014 report, "Medicaid agencies are developing innovative ways to use telemedicine in their payment and delivery reforms resulting in 48 state Medicaid agencies with some type of coverage for telemedicine provided-services."¹³⁴ Furthermore, a 2014 survey of all fifty states and the District of Columbia noted that:

Live video Medicaid reimbursement, for example, continues to far exceed reimbursement for store-and-forward and remote patient monitoring. In comparison to forty-four states last year, currently forty-six state Medicaid programs reimburse for some form of live video. Ten state Medicaid programs offer some reimbursement for store-and-forward (states that only reimbursed for tele-radiology are not included in this count). Thirteen state Medicaid programs offer reimbursement for remote patient monitoring compared to ten states at the time this report was first published in 2013. Three state Medicaid programs (Alaska, Minnesota and Mississippi) reimburse for all three.¹³⁵

¹³³ *Telemedicine*, MEDICAID.GOV, <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Delivery-Systems/Telemedicine.html> (last visited Aug. 1, 2015).

¹³⁴ THOMAS & CAPISTRANT, *supra* note 106, at 4.

¹³⁵ CTR. FOR CONNECTED HEALTH POLICY, STATE TELEHEALTH POLICIES AND REIMBURSEMENT SCHEDULES: A COMPREHENSIVE PLAN OF THE 50 STATES AND DISTRICT OF COLUMBIA 2 (2014), *available at* <http://cchpca.org/sites/default>

Some telehealth services do not meet the Medicaid definition of telemedicine.¹³⁶ “Even though such technologies are not considered “telemedicine,” they may nevertheless be covered and reimbursed as part of a Medicaid coverable service, such as laboratory service, x-ray service or physician services (under section 1905(a) of the Social Security Act).”¹³⁷ Additionally, “Medicaid guidelines require all providers to practice within the scope of their State Practice Act. Any such requirements or restrictions placed by the state are binding under the current Medicaid rules.”¹³⁸

Medicaid reimbursement for covered services, including telemedicine, “must satisfy federal requirements of efficiency, economy and quality of care. States are encouraged to use the flexibility inherent in federal law to create innovative payment methodologies for services that incorporate telemedicine technology.”¹³⁹ Accordingly, states may determine:

[W]hether (or not) to cover telemedicine; what types of telemedicine to cover; where in the state it can be covered; how it is provided/covered; what types of telemedicine practitioners/providers may be covered/reimbursed, as long as [they] are . . . qualified according to Medicaid statute/regulation]; and how much to reimburse for telemedicine services, as long as such payments do not exceed Federal Upper Limits.¹⁴⁰

....

[T]he general Medicaid requirements of comparability, statewideness and freedom of choice do **not** apply with regard to telemedicine services.¹⁴¹

/files/uploader/50%20STATE%20MEDICAID%20REPORT%20SEPT%202014.pdf. New York does not cover store and forward. *Id.* at 130. “As with live video and store-and-forward reimbursement, many of the states that offer RPM reimbursement have a multitude of restrictions associated with its use. The most common . . . include only offering reimbursement to home health agencies, restricting the clinical condition for which symptoms can be monitored, and limiting the type of monitoring device and information that can be collected.” *Id.* at 6.

¹³⁶ *Telemedicine*, MEDICAID.GOV, <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Delivery-Systems/Telemedicine.html> (last visited Aug. 1, 2015).

¹³⁷ *Id.*

¹³⁸ *Id.*

¹³⁹ *Id.*

¹⁴⁰ *Id.*

¹⁴¹ *Id.*

The Affordable Care Act:

[O]ffers states new financing and flexibility to expand their Medicaid programs, as well as to integrate Medicare and Medicaid coverage for dually eligible beneficiaries (“duals”). Georgia, New York and Virginia are the only states that extend coverage of telemedicine-provided services to their dual eligible population through the Centers for Medicare and Medicaid Services (CMS) Capitated Financial Alignment Model for Medicare-Medicaid Enrollees.¹⁴²

The ACA also enacted a health home option to coordinate medical, long-term care “and social service needs for high-need, high-cost beneficiaries.”¹⁴³

The chronic conditions include mental health, substance use disorder, asthma, diabetes, heart disease, overweight (body mass index over twenty-five), and other conditions that CMS may specify. Fifteen states have approved health home state plan amendments (SPAs) from CMS. Alabama, Iowa, Maine, New York, Ohio, and West Virginia are the only states that have incorporated some form of telemedicine into their approved health home proposals.¹⁴⁴

For purposes of New York’s Medicaid program, “Telemedicine” is defined as:

[T]he delivery of clinical health care services by means of real time two-way electronic audiovisual communications which facilitate the assessment, diagnosis, consultation, treatment, education, care management and self management of a patient’s health care, while such patient is at the originating site and the health care provider

¹⁴² THOMAS & CAPISTRANT, *supra* note 106, at 23.

¹⁴³ *Id.*

¹⁴⁴ *Id.*; see also N.Y. STATE DEP’T OF HEALTH, NYS HEALTH HOME SPA FOR INDIVIDUALS WITH CHRONIC BEHAVIORAL AND MEDICAL HEALTH CONDITIONS- SPA # 12-11, at 2 (2012), available at https://www.health.ny.gov/health_care/medicaid/program/medicaid_health_homes/docs/2012-12-11_spa_approval_plan_pgs.pdf (noting that New York State (NYS) “has developed initial and final [health information technology] standards for health homes that are consistent with NYS’ Operational Plan for Health Information Technology and Exchange approved by CMS”).

is at a distant site.¹⁴⁵

Importantly:

New York Medicaid will reimburse for live video services for medically necessary services provided to patients in: Hospitals . . . established under Article 28 of the New York Public Health Law; Diagnostic and Treatment Centers (D&TCs) established under Article 28; [Federally Qualified Health Centers] that have “opted into” NY Medicaid Ambulatory Patient Groups (APG); [and] Non-FQHC School Based Health Centers (SBHCs). Providers who may deliver telemedicine services include: Physician specialists, including psychiatrists; Certified Diabetes Educators (CDEs); [and] Certified Asthma Educators (CAEs or A-ECs).¹⁴⁶

Store and forward services, however, are not covered.¹⁴⁷

Remote patient monitoring is covered under the home health benefit.¹⁴⁸ Under prior law:

Demonstration rates of payment or fees [were] established for telehealth services provided by a certified home health agency, a long term home health care program or AIDS home care program, or for telehealth services by a licensed home care services agency under contract with such an agency or program Reimbursement . . . [is] provided . . . only in connection with Federal Food and Drug Administration-approved and interoperable devices, and incorporated as part of the patient’s plan of care.¹⁴⁹

Subject to the approval of the State Budget Director, New York’s Medicaid program will be required to pay for telehealth

¹⁴⁵ N.Y. PUB. HEALTH LAW § 2805-u(1)(d) (McKinney 2015); *see also* N.Y. State Dep’t of Health, *Expanded Coverage of Telemedicine*, in 27 DOH MEDICAID UPDATES (2011), *available at* http://www.health.ny.gov/health_care/medicaid/program/update/2011/2011-09.htm.

¹⁴⁶ *NY Medicaid Program Live Video Reimbursement*, CENTER FOR CONNECTED HEALTH POL’Y, <http://cchpca.org/ny-medicaid-program-live-video-reimbursement> (last visited Aug. 1, 2015).

¹⁴⁷ N.Y. STATE DEP’T OF HEALTH, *supra* note 144.

¹⁴⁸ AM. TELEMEDICINE ASS’N, STATE MEDICAID BEST PRACTICE: REMOTE PATIENT MONITORING AND HOME VIDEO VISITS 1 (2013), *available at* <http://www.americantelemed.org/docs/default-source/policy/state-medicaid-best-practice---telerehabilitation.pdf>.

¹⁴⁹ N.Y. PUB. HEALTH LAW § 3614(3-e)(a).

services.¹⁵⁰

New York has embarked on a much broader Medicaid reform plan:

[W]hich will use incentive payments along with grants to attempt a fundamental redesign of the delivery system to Medicaid recipients and the uninsured. . . . These grants will support a larger effort known as the delivery system reform incentive payment program (DSRIP) which has been approved by the Federal government under a Medicaid waiver. A key component of DSRIP will fund the “development of telehealth infrastructure.”

....

With the recent enactment of telehealth/telemedicine parity in New York . . . we may expect further coverage in areas beyond traditional physicians services and home care.¹⁵¹

As one comment notes,

The Medicaid program must take into consideration that while telehealth is anticipated to reduce costs of hospital admissions and readmissions, the providers will need financial incentives to invest capital outlay funds to purchase the software technology and equipment to support the provision of telehealth. This may require the Medicaid program to have higher reimbursement rates for telehealth services for a period of years to offset such expenditures. However, this would likely require the State to obtain an amendment to the State Plan if the reimbursement amount for delivery of health care services by means of telehealth is in excess of the current amount reimbursed for covered services delivered by way of direct care.¹⁵²

C. Medicare

With respect to telemedicine and telehealth services:

Medicare does not reimburse very much in the fee-for-service system, and that reimbursement is largely limited to nonmetropolitan areas, to certain institutions, and to certain current procedural terminology (CPT) codes. Many of these restrictions result from fears that telemedicine either will allow providers to abuse the health care system or will lead to

¹⁵⁰ N.Y. SOC. SERV. LAW § 367-u (McKinney 2015).

¹⁵¹ Tabora, *supra* note 126, at 31–32.

¹⁵² Dunham, *supra* note 19.

overutilization and drive up costs.¹⁵³

The Centers for Medicare and Medicaid Services (CMS) has issued guidance on the extent to which telehealth services are covered under the Medicare Fee-For-Service Program (also known as Original Medicare) for calendar year 2015.¹⁵⁴ Original Medicare “treats telehealth almost exclusively as a tool for rural areas, and has narrowly restricted the geographic areas that are eligible to use telehealth.”¹⁵⁵ “Medicare beneficiaries are eligible for telehealth services only if they are presented from an originating site located in: [a] rural Health Professional Shortage Area (HPSA) located either outside of a Metropolitan Statistical Area (MSA) or in a rural census tract; or [a] county outside of a MSA.”¹⁵⁶ “Some argue against this restriction because many underserved areas are still barred from receiving telehealth-delivered services, and those that are eligible may not have an adequate population base to maintain a telehealth network.”¹⁵⁷

¹⁵³ Linkous, *supra* note 3, at 18. “Medicare only pays about \$6 million annually for telehealth services. In 2009, about 14,000 beneficiaries had one or more telehealth visits. In 2009, there were about 40,000 telehealth visits, but less than 30,000 bills from the originating site. In part this may be because the originating site was in a patient’s home, which is not a recognized provider site under Medicare.” Stensland, *supra* note 94, at 32; *see also* Gilman & Stensland, *supra* note 83, at E8 (“Based on our examination of 2009 Medicare claims, we find that beneficiaries made about 38,000 telehealth visits in 2009. This is an increase from about 26,000 telehealth visits in 2006. The 32% may sound large, but it can be misleading because it is starting from a very small base of 26,000 visits. There were only 26,000 telehealth visits in 2006, which is less than one visit for every 700 rural Medicare beneficiaries”) *See generally* 42 U.S.C. § 1395m(m) (West, Westlaw through P.L. 113-296 approved 12/19/2014); 42 C.F.R. § 410.78 (2015); 42 C.F.R. § 414.65 (2015).

¹⁵⁴ U.S. DEP’T OF HEALTH & HUMAN SERVS., TELEHEALTH SERVICES: RURAL HEALTH FACT SHEET SERIES 1 (2014) [hereinafter RURAL HEALTH FACT SHEET], available at <http://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/TelehealthSrvcsfctsht.pdf>.

¹⁵⁵ *Telehealth and Medicare*, CENTER FOR CONNECTED HEALTH POL’Y, <http://cchpca.org/telehealth-and-medicare> (last visited Aug. 1, 2015).

¹⁵⁶ RURAL HEALTH FACT SHEET, *supra* note 156, at 1. “The Health Resources and Services Administration (HRSA) determines HPSAs, and the United States (U.S.) Census Bureau determines MSAs.” *Id.* at 2. HRSA’s website tool is linked to the Centers for Medicare & Medicaid Services (CMS) website at <http://www.cms.gov/Medicare/Medicare-General-Information/Telehealth>. *Id.*

¹⁵⁷ *Telehealth and Medicare*, *supra* note 157; *see also* MEDICARE PAYMENT ADVISORY COMM’N, REPORT TO THE CONGRESS: MEDICARE AND THE HEALTH CARE DELIVERY SYSTEM 115 (2012), available at http://www.medpac.gov/documents/reports/jun12_entirereport.pdf?sfvrsn=0 (noting the reporting requirements with respect to “rural providers’ quality of care” and “the

The originating sites authorized by [the Medicare] law are: The offices of physicians or practitioners; Hospitals; Critical Access Hospitals (CAH); Rural Health Clinics; Federally Qualified Health Centers; Hospital-based or CAH-based Renal Dialysis Centers (including satellites); Skilled Nursing Facilities (SNF); and Community Mental Health Centers (CMHC). Independent Renal Dialysis Facilities are not eligible originating sites.¹⁵⁸

Practitioners at the distant site who may furnish and receive payment for covered telehealth services (subject to State law) are: Physicians; Nurse practitioners; Physician assistants; Nurse-midwives; Clinical nurse specialists (CNS); Certified registered nurse anesthetists; Clinical psychologists (CP) and clinical social workers (CSW). . . .; and Registered dietitians or nutrition professionals.¹⁵⁹

[The practitioner] must use an interactive audio and video telecommunications system that permits real-time communication between [the practitioner], at the distant site, and the beneficiary, at the originating site. Asynchronous “store and forward” technology is permitted only in Federal telemedicine demonstration programs conducted in Alaska or Hawaii.¹⁶⁰

Notably, “Medicare does not reimburse for remote patient monitoring services.”¹⁶¹ Many of these restrictions do not apply, however, to Medicare Advantage plans¹⁶² or, under a recent CMS

adequacy of Medicare payments to rural providers”).

¹⁵⁸ RURAL HEALTH FACT SHEET, *supra* note 156, at 2; *see also* 42 C.F.R. § 410.78(b)(3).

¹⁵⁹ RURAL HEALTH FACT SHEET, *supra* note 156, at 2; *see also* 42 C.F.R. § 410.78(b)(2). CPs and CSWs cannot bill for psychotherapy services that include medical evaluation and management services. RURAL HEALTH FACT SHEET, *supra* note 156, at 2.

¹⁶⁰ RURAL HEALTH FACT SHEET, *supra* note 156, at 2; *see also* 42 C.F.R. § 410.78(a).

¹⁶¹ *Telehealth and Medicare*, *supra* note 157. *See generally* RURAL HEALTH FACT SHEET, *supra* note 156, at 3–4 (providing a list of all Medicare-covered telehealth services for 2015).

¹⁶² *See* Letter from Jonathan D. Linkous, Chief Exec. Officer, Am. Telemedicine Ass’n, to Marilyn Tavenner, Adm’r, Ctrs. for Medicare & Medicaid Servs. (Feb. 6, 2015), *available at* <http://www.americantelemed.org/docs/default-source/policy/ata-urges-cms-to-waive-medicare-restrictions-on-telehealth.pdf?sfvrsn=2> (noting that telehealth restrictions have been flexibly applied as part of a “long-standing policy for Medicare Advantage plans”); Letter from Krista Drobac, Exec. Dir., Alliance for Connected Care, to Marilyn Tavenner, Adm’r, Ctrs. for Medicare & Medicaid Servs. (Feb. 6, 2015), *available at* <http://www.connectwithcare.org/wp-content/uploads/2015/02/Alliance-for->

ruling, accountable care organizations (ACOs).¹⁶³

The decision is particularly significant because under this new model, Medicare telehealth services can be covered without regard to longstanding rural and institution restrictions, requiring a beneficiary be located in a rural area and served at a health facility. For the first time, telehealth coverage will be extended to 80 percent of Medicare beneficiaries living in metropolitan areas and from any service originating site, such as their home.¹⁶⁴

D. Telehealth & Employers

“Employer-sponsored health insurance covers about 149 million nonelderly people”¹⁶⁵ and is the largest single source of insurance coverage.¹⁶⁶ Accordingly, employers’ willingness to use telehealth is crucial to its widespread acceptance. A recent Towers Watson study focusing on large employers concluded that “employers could save up to \$6 billion per year if their employees routinely engaged in remote consults . . . instead of visiting emergency rooms, urgent care centers, and physicians’ offices.”¹⁶⁷

Connected-Care-Draft-Alliance-Comment-Letter-Final.pdf (“CMS currently allows Medicare Advantage plans to offer telehealth services to beneficiaries as a mandatory supplemental benefit . . .”).

¹⁶³ Ryan Mcaskill, *Telehealth a Part of CMS Proposed Next Generation ACO Model*, MHEALTH INTELLIGENCE (Mar. 16, 2015), <http://mhealthintelligence.com/news/telehealth-a-part-of-cms-proposed-next-generation-aco-model>.

¹⁶⁴ *CMS Approves American Telemedicine Association’s Request to Expand Telehealth Coverage*, AM. TELEMEDICINE ASS’N (Mar. 11, 2015) http://www.americantelemed.org/news-landing/2015/03/11/cms-approves-american-telemedicine-association-s-request-to-expand-telehealth-coverage#.VS8kvxPF_fc.

¹⁶⁵ KAISER FAMILY FOUND., EMPLOYER HEALTH BENEFITS: 2014 SUMMARY OF FINDINGS 1 (2014), available at <http://files.kff.org/attachment/ehbs-2014-abstract-summary-of-findings>.

¹⁶⁶ See *Health Insurance Coverage of the Total Population*, KAISER FAM. FOUND., <http://kff.org/other/state-indicator/total-population/> (last visited Aug. 1, 2015) (indicating that 48% of the nation’s total population receives health insured coverage via employer-provided plans).

¹⁶⁷ René Y. Quashie & Amy F. Lerman, *Telemedicine and Employers: The New Frontier*, in FIVE HEALTH CARE DEVELOPMENTS IMPORTANT TO EMPLOYERS 6, 6 (2015), available at <http://www.ebglaw.com/content/uploads/2015/02/Take-5-Five-Health-Care-Developments-Important-to-Employers.pdf>; see also Rob Wyse, *Current Telemedicine Technology Could Mean Big Savings*, TOWERS WATSON (Aug. 11, 2014), <http://www.towerswatson.com/en/Press/2014/08/current-telemedicine-technology-could-mean-big-savings> (“Telemedicine could potentially deliver more than \$6 billion a year in health care savings to U.S. companies . . .”).

Employers are paying close attention to developments in telemedicine, largely because of the “Cadillac Tax” imposed by the Affordable Care Act.¹⁶⁸ A 40% excise tax takes effect in 2018 for inflation-adjusted health coverage costs exceeding \$10,200 for single coverage and \$27,500 for family coverage, subject to certain adjustments.¹⁶⁹ The thresholds increase at the Consumer Price Index (CPI) plus 1% in 2019, and CPI only thereafter.¹⁷⁰ As a result, more and more plans will be subject to the tax if, as is almost certain in the short term, health care inflation continues to exceed the general rate of inflation. The tax will be imposed on the insurer,¹⁷¹ or on the plan sponsor if the plan is self-insured.¹⁷² Liability for the tax is based on the total cost of benefits, not what the employer pays, so shifting costs to employees does not help.¹⁷³ “Two in five employers that have done modeling of their plans say they will trigger the 40 percent excise tax in 2018 unless they make benefit changes to rein in costs.”¹⁷⁴ Fifty-four percent of the large employers surveyed “will trigger the excise tax by 2020 if no changes are made to their health care benefit strategy.”¹⁷⁵

According to the Towers Watson survey, only about 20% of U.S. employers offered telemedicine services in 2014, but nearly 37% of the employers said that they plan to offer access to such

¹⁶⁸ René Y. Quashie & Amy F. Lerman, *Telemedicine and Employers: The New Frontier*, in FIVE HEALTH CARE DEVELOPMENTS IMPORTANT TO EMPLOYERS 6, 6 (2015), available at <http://www.ebglaw.com/content/uploads/2015/02/Take-5-Five-Health-Care-Developments-Important-to-Employers.pdf>; see also Rob Wyse, *Current Telemedicine Technology Could Mean Big Savings*, TOWERS WATSON (Aug. 11, 2014), <http://www.towerswatson.com/en/Press/2014/08/current-telemedicine-technology-could-mean-big-savings> (“Telemedicine could potentially deliver more than \$6 billion a year in health care savings to U.S. companies . . .”).

¹⁶⁹ 26 U.S.C. §§ 4980I(a), (b)(3)(C)(i) (2012).

¹⁷⁰ *Id.* § 4980I(b)(3)(C)(v); see also 26 U.S.C. § 1(f)(3) (West, Westlaw through P.L. 113-296 approved 12/19/14) (calculating CPI).

¹⁷¹ 26 U.S.C. § 4980I(c).

¹⁷² *Id.* § 4980I(d)(1)(C).

¹⁷³ *Id.* § 4980I(c)(3).

¹⁷⁴ Stephen H. Miller, *Employers Plan Strategic Changes to Health Benefits Affordability Concerns Intensify as Excise Tax Looms*, SHRM.ORG (Mar. 10, 2015), <http://www.shrm.org/hrdisciplines/benefits/articles/pages/health-benefit-changes.aspx>.

¹⁷⁵ TOWER WATSON, 2014 HEALTH CARE CHANGES AHEAD SURVEY: EMERGING FACTORS INFLUENCING EMPLOYER-SPONSORED HEALTH CARE BENEFITS 2 (2014) [hereinafter HEALTH CARE CHANGES], available at <http://www.towerswatson.com/en-US/Insights/IC-Types/Survey-Research-Results/2014/09/2014-health-care-changes-ahead-survey-report>.

services in 2015, while another 34% are considering offering access to telemedicine services within the next three years.¹⁷⁶ “Virtual physician visits enable easier and less expensive health care access for employees.”¹⁷⁷ “Effective use of telemedicine services could eliminate 15 percent of physician office visits, 15 percent of emergency room visits, and 37 percent of urgent care visits. This all results in significant savings to employers that cover any part of the costs of their employees’ health care.”¹⁷⁸

Employers are also eager to boost employee engagement in health care.¹⁷⁹ Tactics include the use of mobile apps and fitness wearables.¹⁸⁰

More than three-fourths (76%) of companies are exploring mobile apps and fitness wearables for activity tracking (e.g., fitness and nutrition). Also, more than half are using them for health care delivery (56%) and price/quality transparency tools (54%). These solutions encourage employees to take a more active role in both their personal health status and how they use health care goods and services.¹⁸¹

¹⁷⁶ *Id.* at 6.

¹⁷⁷ *Id.*

¹⁷⁸ René Y. Quashie & Amy F. Lerman, *Telemedicine and Employers: The New Frontier*, in FIVE HEALTH CARE DEVELOPMENTS IMPORTANT TO EMPLOYERS 6, 6 (2015), available at <http://www.ebglaw.com/content/uploads/2015/02/Take-5-Five-Health-Care-Developments-Important-to-Employers.pdf>; see also Rob Wyse, *Current Telemedicine Technology Could Mean Big Savings*, TOWERS WATSON (Aug. 11, 2014), <http://www.towerswatson.com/en/Press/2014/08/current-telemedicine-technology-could-mean-big-savings> (“Telemedicine could potentially deliver more than \$6 billion a year in health care savings to U.S. companies . . .”).

¹⁷⁹ See Rob Wyse, *Employers Expect Changes to Employee Health Care Programs to Retain Competitiveness, According to New Towers Watson Study*, TOWER WATSON (Mar. 5, 2015), <http://www.towerswatson.com/en-US/Press/2015/03/employers-expect-changes-to-employee-health-care-programs-to-retain-competitiveness> (“Employers recognize the business value of a healthy workforce and are encouraging employees to take control of their health.”).

¹⁸⁰ See Rob Wyse, *U.S. Employers Expect Health Care Costs to Rise 4% in 2015*, TOWER WATSON (Aug. 20, 2014), <http://www.towerswatson.com/en-US/Press/2014/08/us-employers-expect-health-care-costs-to-rise-4-percent-in-2015> (explaining that a vast majority of employers are “exploring the use of personalized digital technologies, including mobile health applications and fitness wearables . . .”).

¹⁸¹ TOWER WATSON, 2014 HEALTH CARE CHANGES AHEAD SURVEY: EMERGING FACTORS INFLUENCING EMPLOYER-SPONSORED HEALTH CARE BENEFITS 2 (2014) [hereinafter HEALTH CARE CHANGES], available at <http://www.towerswatson.com/en-US/Insights/IC-Types/Survey-Research-Results/2014/09/2014-health-care-changes-ahead-survey-report>.

Significantly, the ERISA Industry Committee (ERIC), a group of large employers, has launched a telehealth initiative:

“ERIC members, the largest and most prestigious companies in the country, consider telehealth an emerging and important service enabling employees and their families to have expanded access to health care services such as with remote monitoring of health conditions or telehealth visits when more convenient given family and work commitments. Recognizing the need for consistent telehealth policies around the country that do not create unnecessary barriers to health care services, ERIC is leading a nation-wide initiative to promote policies that maximize the benefits of this modern, innovative health care delivery tool.”¹⁸²

VI. LICENSING & REGULATION

Professional licensing and regulatory requirements are often cited as a major barrier to the expanded use of telehealth and telemedicine.¹⁸³

Licensing was a minor issue when the [American Telemedicine Association] was formed, because most telemedicine systems operated within a single state. Today there are multistate systems with multistate practices. As most of the major health care providers move into a national system, licensure is becoming a bigger barrier. Practice regulations may be an even larger barrier than licensure, as many state medical boards require an in-person consultation before initiation of any telemedicine services. In fact, the American Medical Association recently proposed a resolution to the same effect, and federal legislation has also been proposed. Telemedicine also often encounters barriers with traditional regulatory agencies (e.g., the Food and Drug Administration [FDA], the FCC).¹⁸⁴

¹⁸² *The ERIC Telehealth Initiative*, ERIC.COM (Jun. 14, 2015), www.eric.org/health/the-eric-telehealth-initiative/.

¹⁸³ René Y. Quashie & Amy F. Lerman, *Telemedicine and Employers: The New Frontier*, in FIVE HEALTH CARE DEVELOPMENTS IMPORTANT TO EMPLOYERS 6, 6 (2015), available at <http://www.ebglaw.com/content/uploads/2015/02/Take-5-Five-Health-Care-Developments-Important-to-Employers.pdf>; see also Rob Wyse, *Current Telemedicine Technology Could Mean Big Savings*, TOWERS WATSON (Aug. 11, 2014), <http://www.towerswatson.com/en/Press/2014/08/current-telemedicine-technology-could-mean-big-savings> (“Telemedicine could potentially deliver more than \$6 billion a year in health care savings to U.S. companies . . .”).

¹⁸⁴ Linkous, *supra* note 3, at 18.

“Most states require physicians to be licensed to practice in the originating site’s state, and some states require [telehealth] providers . . . to have a valid state license in the state where the patient is located.”¹⁸⁵

According to one national survey:

[E]very state imposes a policy that makes practicing medicine across state lines difficult regardless of whether or not telemedicine is used. . . . D.C., Maryland, New York, and Virginia, are the only states that allow licensure reciprocity from bordering states. Alabama, Louisiana, Minnesota, Montana, Nevada, New Mexico, Ohio, Oregon, Tennessee, and Texas are the only states that extend a conditional or telemedicine license to out-of-state physicians.¹⁸⁶

Those wishing to practice medicine in the state of New York generally need to obtain a New York medical license.¹⁸⁷ In 2000, the New York Board for Professional Medical Conduct stated that, for physician licensing purposes, when care is provided through telemedicine, the location of the patient is where the care is considered to be provided.¹⁸⁸ The Board also stated that “[a]ll the current standards of care regarding the practice of medicine apply. The fact that an electronic medium is utilized for contact between parties or as a substitute for face-to-face

¹⁸⁵ *Are There State Licensing Issues Related to Telehealth?*, HEALTH RES. & SERVICES ADMIN., <http://www.hrsa.gov/healthit/toolbox/RuralHealthIT/toolbox/Telehealth/aretherelicensing.html> (last visited Aug. 1, 2015).

¹⁸⁶ THOMAS & CAPISTRANT, *supra* note 106, at 9. New York allows telemedicine to establish the patient-physician relationship, and extends licensure reciprocity to bordering states. *Statements on Telemedicine*, N.Y. ST. DEPT’ OF HEALTH, <http://www.health.ny.gov/professionals/doctors/conduct/telemedicine.htm> (last visited Aug. 1, 2015).

¹⁸⁷ The New York Education Law provides certain exemptions, including: “Any physician who is licensed in a bordering state and who resides near a border of this state, provided such practice is limited in this state to the vicinity of such border and provided such physician does not maintain an office or place to meet patients or receive calls within this state;” and “Any physician who is licensed in another state or country *and who is meeting* a physician licensed in this state, for purposes of consultation, provided such practice is limited to such consultation.” N.Y. EDUC. LAW §§ 6526(2)–(3) (McKinney 2015) (emphasis added).

¹⁸⁸ THOMAS & CAPISTRANT, *supra* note 106, at 9. New York allows telemedicine to establish the patient-physician relationship, and extends licensure reciprocity to bordering states. *Statements on Telemedicine*, N.Y. ST. DEPT’ OF HEALTH, <http://www.health.ny.gov/professionals/doctors/conduct/telemedicine.htm> (last visited Aug. 1, 2015).

consultation does not change the standards of care.”¹⁸⁹

“The New York Board of Medicine has disciplined physicians for issuing prescriptions over the Internet without conducting a physical examination of the patient, as constituting inappropriate care and unprofessional conduct.”¹⁹⁰

In New York, face-to-face contact between a patient and a physician is not necessary in order for a physician-patient relationship to be formed, and given that it has been found to exist from a telephone call, it is likely it could also be found to exist where care is provided through telemedicine. A physician-patient relationship can arise through a telephone call where it is “shown that it was foreseeable that the patient would rely on the advice and that the prospective patient did in fact rely on the advice.”¹⁹¹

The Federation of State Medical Boards (FSMB) has developed an Interstate Medical Licensure Compact (“Compact”) that would facilitate license portability and the practice of interstate telemedicine. So far, [several] states have introduced bills seeking to become Compact states. There also is a Nurse Licensure Compact in place in twenty-four states, but it only covers registered nurses and licensed vocational nurses. Compacts for nurse practitioners and physician assistants are being developed.¹⁹²

¹⁸⁹ *Id.*

¹⁹⁰ CTR. FOR TELEHEALTH & E-HEALTH LAW, EXECUTIVE SUMMARY: NEW YORK PHYSICIAN LICENSURE STATUTE 1 (2010), available at [http://ctel.org/annotated_states/New_York_Annotated_%20\(2579612_1\).PDF](http://ctel.org/annotated_states/New_York_Annotated_%20(2579612_1).PDF).

¹⁹¹ Courtney Alpert, *Findings on Telemedicine and Medical Malpractice in New York*, 20 N.Y. ST. BAR ASS’N HEALTH L.J. 47, 48 (2015) (quoting *Miller v. Sullivan*, 625 N.Y.S.2d 102, 104 (N.Y. App. Div. 1995)).

¹⁹² René Y. Quashie & Amy F. Lerman, *Telemedicine and Employers: The New Frontier*, in FIVE HEALTH CARE DEVELOPMENTS IMPORTANT TO EMPLOYERS 6, 6 (2015), available at <http://www.ebglaw.com/content/uploads/2015/02/Take-5-Five-Health-Care-Developments-Important-to-Employers.pdf>; see also Rob Wyse, *Current Telemedicine Technology Could Mean Big Savings*, TOWERS WATSON (Aug. 11, 2014), <http://www.towerswatson.com/en/Press/2014/08/current-telemedicine-technology-could-mean-big-savings> (“Telemedicine could potentially deliver more than \$6 billion a year in health care savings to U.S. companies . . .”). Notably, on Friday, February 27th, 2015, Governor Mead of Wyoming signed HB107, becoming the first state to enact the compact. Governor Mead Signs First In The Nation. Press Release, Office of Governor Matt Mead, Governor Mead Signs First In The Nation Interstate Medical Licensure Compact (Mar. 13, 2015, 12:49 PM), available at <http://www.sweetwaternow.com/governor-mead-signs-first-nation-interstate-medical-licensure-compact/>. Six more states (Alabama, Idaho, Montana, South Dakota, Utah and West Virginia) have now adopted the compact. *Interstate Telehealth Licensing Compact Set to Become Reality*, NE. TELEHEALTH RESOURCES CENTER (May 15,

Among the factors required by states to establish a physician-patient relationship is an evaluation or examination of the patient by the treating physician. This is especially important when the treating physician is prescribing medications for the patient. States have different requirements that must be met in order for a proper examination to have occurred—some require an in-person evaluation or physical examination, while others permit physicians to examine patients using telemedicine technologies.¹⁹³

The FSMB has also issued a Model Policy for the Appropriate Use of Telemedicine Technologies in the Practice of Medicine:

It is the intent of the SMART Workgroup to offer a model policy for use by state medical boards in order to remove regulatory barriers to widespread appropriate adoption of telemedicine technologies for delivering care while ensuring the public health and safety.

....

For clarity, a physician using telemedicine technologies in the provision of medical services to a patient (whether existing or new) must take appropriate steps to establish the physician-patient relationship and conduct all appropriate evaluations and history of the patient consistent with traditional standards of care for the particular patient presentation. As such, some situations and patient presentations are appropriate for the utilization of telemedicine technologies as a component of, or in lieu of, in-person provision of medical care, while others are not.¹⁹⁴

2015) <http://netrc.org/news/interstate-telehealth-licensing-compact-set-to-become-reality/>; see also Chaudhry et al, *Improving Access and Mobility—The Interstate Medical Licensure Compact*, 372 N. ENG. J. MED. 1581, 1581-83 (2015)(discussing the Interstate Medical Licensure compact).

¹⁹³ René Y. Quashie & Amy F. Lerman, *Telemedicine and Employers: The New Frontier*, in FIVE HEALTH CARE DEVELOPMENTS IMPORTANT TO EMPLOYERS 6, 6 (2015), available at <http://www.ebglaw.com/content/uploads/2015/02/Take-5-Five-Health-Care-Developments-Important-to-Employers.pdf>; see also Rob Wyse, *Current Telemedicine Technology Could Mean Big Savings*, TOWERS WATSON (Aug. 11, 2014), <http://www.towerswatson.com/en/Press/2014/08/current-telemedicine-technology-could-mean-big-savings> (“Telemedicine could potentially deliver more than \$6 billion a year in health care savings to U.S. companies . . .”).

¹⁹⁴ FED’N OF STATE MED. BD., MODEL POLICY FOR THE APPROPRIATE USE OF TELEMEDICINE TECHNOLOGIES IN THE PRACTICE OF MEDICINE 2–3 (2014), available at http://www.fsmb.org/Media/Default/PDF/FSMB/Advocacy/FSMB_Telemedicine_Policy.pdf.

Section Four provides that:

A physician must be licensed, or under the jurisdiction, of the medical board of the state where the patient is located. The practice of medicine occurs where the patient is located at the time telemedicine technologies are used. Physicians who treat or prescribe through online services sites are practicing medicine and must possess appropriate licensure in all jurisdictions where patients receive care.¹⁹⁵

In a 2013 blog post, René Y. Quashie, senior counsel at Epstein Becker Green, pointed to the lack of highly developed protocols and guidelines for telemedicine:

In my discussions with various state regulators and payers, there seems to be a consensus that telehealth lacks the robust, highly developed protocols, guidelines, and best practices to foster greater acceptance. I applaud organizations such as the American Telemedicine Association for its continued work in developing a suite of protocols and guidelines for telehealth. But a lot more needs to be done . . . Without such protocols, many regulators and payers will continue to view telehealth with skepticism—not to mention the potentially greater liability exposure that exists for practitioners operating in disciplines with no well-established protocols.¹⁹⁶

Another major concern is privacy and security:

Telehealth HIPAA privacy and security issues are not necessarily different than those facing more conventional providers. However, . . . there are ample more opportunities for unauthorized third parties to access patient health information. Data breaches are becoming increasingly common with one study showing that 94 percent of healthcare organizations surveyed have experienced at least one data breach during the past two years, and 45 percent experiencing more than five data breaches each during this same period. In my mind, nothing threatens the future viability of

¹⁹⁵ *Id.* at 5.

¹⁹⁶ René Y. Quashie, *Things That Should Keep the Telehealth Community Awake at Night (Part 1)*, LEXOLOGY (June 10, 2013), <http://www.lexology.com/library/detail.aspx?g=9773f113-74d1-4637-acdb-1fff1b58a6d2>.

telehealth more than lax privacy and security.¹⁹⁷

VII. TELEHEALTH & PRISONS

According to a 2014 report, the cost of health care for prison inmates reached \$7.7 billion in 2011 (probably about a fifth of overall prison expenditures), down from a high of \$8.2 billion in 2009.¹⁹⁸ “The downturn in spending was due, in part, to a reduction in state prison populations.”¹⁹⁹ The report also found that “[c]orrectional health care spending rose in 41 states from fiscal 2007 to 2011, with median growth of 13 percent, after adjusting for inflation. Per-inmate health care spending also rose in 39 states over the period, with a median growth of 10 percent.”²⁰⁰

The percentage of older inmates, who typically require more expensive care, rose in all but two of the forty-two states that submitted prisoner age data.²⁰¹ “From 1999 to 2012, the number of state and federal prisoners age 55 or older . . . increased 204 percent, from 43,300 to 131,500. The number of inmates younger than 55 grew much more slowly.”²⁰² “[M]edian per-inmate spending over the study period was 37 percent higher among the 10 states with the largest share of [older] inmates . . . than the ten states with the smallest share of older inmates.”²⁰³

The inmate population is also generally much sicker than the population at large:

¹⁹⁷ *Id.*; see also Robert A. Heverly, *Telemedicine, Telehealth and Cybersecurity*, 20 N.Y. ST. BAR ASS'N HEALTH L.J. 35, 37 (2015) (discussing the implications of HIPAA and the HITECH Act on telehealth regulation).

¹⁹⁸ PEW CHARITABLE TRUSTS & MACARTHUR FOUND., STATE PRISON HEALTH CARE SPENDING: AN EXAMINATION 1 (2014) [hereinafter THE PEW REPORT], available at <http://www.pewtrusts.org/~media/Assets/2014/07/StatePrisonHealthCareSpendingReport.pdf>.

¹⁹⁹ *Id.*

²⁰⁰ *Id.*

²⁰¹ *Id.* at 11.

²⁰² *Id.* at 9. Estimates suggest that by the year 2030, elderly prisoners may represent nearly a third of the projected total penal population. Benjamin Pomerance, *When Prison Gets Old: Examining New Challenges Facing Elderly Prisoners in America* 6 (2013) (unpublished manuscript), available at <http://lawprofessors.typepad.com/files/elderly-prisoners-report.pdf>. Pomerance further states that: “[t]he National Institute of Corrections has determined that inmates over the age of 50 tend to have the body and mind of a person 11.5 years older than his or her chronological age. Thus, a prisoner who is 55 years old would, on average, possess the physical and psychological functioning of somebody who is 66.5 years old.” *Id.* at 9.

²⁰³ THE PEW REPORT, *supra* note 199, at 12, Fig. 6.

The incarcerated population has significant physical and mental health needs. Chronic disease is prevalent among the population with higher rates of tuberculosis, HIV, Hepatitis B and C, arthritis, diabetes, and sexually transmitted disease compared to the general population. Over half of prison and jail inmates have a mental health disorder, with local jail inmates experiencing the highest rate (64%). These disorders include mania, major depression, and psychotic disorders. . . . Moreover, the majority of inmates with a mental health disorder also have a substance or alcohol use disorder.²⁰⁴

California had the highest per inmate cost and the highest increase, \$ 14,495 and 42 percent.²⁰⁵ New York's increase was 11 percent, from \$5, 5,703 to \$6,320. It ranked nineteenth in cost per inmate.²⁰⁶ The lowest per inmate cost was in Oklahoma,

²⁰⁴ ALEXANDRA GATES ET AL., HEALTH COVERAGE AND CARE FOR THE ADULT CRIMINAL JUSTICE-INVOLVED POPULATION 3 (Kaiser Family Found. 2014), available at <https://kaiserfamilyfoundation.files.wordpress.com/2014/09/8622-health-coverage-and-care-for-the-adult-criminal-justice-involved-population1.pdf>.

²⁰⁵ PEW CHARITABLE TRUSTS & MACARTHUR FOUND., STATE PRISON HEALTH CARE SPENDING: AN EXAMINATION 1 (2014) [hereinafter THE PEW REPORT], available at <http://www.pewtrusts.org/~media/Assets/2014/07/StatePrisonHealthCareSpendingReport.pdf>. Despite this high level of expense, the U.S. Supreme Court has held that substandard medical care and living conditions in California prisons, resulting from overcrowding, violated the Eighth Amendment. *Brown v. Plata*, 131 S. Ct. 1910, 1947 (2011).

²⁰⁶ PEW CHARITABLE TRUSTS & MACARTHUR FOUND., STATE PRISON HEALTH CARE SPENDING: AN EXAMINATION 1 (2014) [hereinafter THE PEW REPORT], available at <http://www.pewtrusts.org/~media/Assets/2014/07/StatePrisonHealthCareSpendingReport.pdf>. According to a report from the Correctional Association (CA) of New York: “[i]n the nine years since the CA last issued a report on healthcare, DOCS has made some significant improvements in the provision of medical care. . . . However, in spite of these improvements, significant problems persist. At most prisons the CA visited, healthcare accounted for more inmate grievances than any other issue.” CORRECTIONAL ASS'N OF NEW YORK, HEALTHCARE IN NEW YORK PRISONS 2004-2007, at 2–3 (2009), available at http://www.correctionalassociation.org/wp-content/uploads/2012/05/Healthcare_Report_2004-07.pdf; see also Press Release, Correctional Ass'n of N.Y., New CA Report on Prison Healthcare (Jan. 10, 2009), <http://www.correctionalassociation.org/news/new-ca-report-on-prison-healthcare> (“In some prisons, it can take months to see a doctor, routine care is poor, access to specialty services is delayed, and follow-up is inadequate. Many incarcerated persons with chronic infections, such as HIV, are not diagnosed, delaying critical treatment. Of high concern to the CA is the lack of Department of Health (DOH) oversight in state prisons; unlike other medical facilities in New York State, DOH is not required to monitor DOCS healthcare. In addition, poorly trained medical personnel, vacancies, and low staff salaries can negatively affect the quality of medical care provided.”).

\$3,071.²⁰⁷

In *Estelle v. Gamble*, the U.S. Supreme Court held that “prisoners have a constitutional right to medical attention, and that the Eighth Amendment is violated when [corrections officials] display ‘deliberate indifference’ to an inmate’s medical needs.”²⁰⁸ Mere negligence or medical malpractice, however, is not a constitutional violation.²⁰⁹

In 1988, the Court held in *West v. Atkins* that this standard also applies to private medical contractors.²¹⁰ This is important, because “only 14 state correctional healthcare systems are completely self-operated by government correctional agencies.”²¹¹ The other thirty-six states “contract out at least a portion of their correctional healthcare services.”²¹² Twenty-four states “have their state correctional health care systems run completely by private companies”²¹³

Several court decisions have “require[d] states to expand or improve medical services, upgrade facilities, or increase staff.”²¹⁴

The National Commission on Correctional Health Care Board of Directors adopted a Position Statement on November 9, 1997:

The use of telemedicine affords correctional facilities many opportunities for reducing operational costs associated with

²⁰⁷ PEW CHARITABLE TRUSTS & MACARTHUR FOUND., STATE PRISON HEALTH CARE SPENDING: AN EXAMINATION 1 (2014) [hereinafter THE PEW REPORT], available at <http://www.pewtrusts.org/~media/Assets/2014/07/StatePrisonHealthCareSpendingReport.pdf>.

²⁰⁸ Dominik Taylor, *Profiting From Failure: Corizon Health Inc., Martin Harrison and the Deadly Consequences of For-Profit Prison Healthcare*, ROOT & REBOUND (Mar. 4, 2015), https://rootrebound.wordpress.com/2015/03/04/profitting-from-failure-corizon-health-inc-martin-harrison-and-the-deadly-consequences-of-for-profit-prison-healthcare/#_ftn20; see also *Estelle v. Gamble*, 429 U.S. 97, 104–05 (1976).

²⁰⁹ *Estelle*, 429 U.S. at 106.

²¹⁰ *West v. Atkins*, 487 U.S. 42, 55–56 (1988).

²¹¹ Lauren Galik & Leonard Gilroy, *Public-Private Partnerships in Correctional Health Care 2* (Reason Found., Policy Brief No. 122, 2014), available at http://reason.org/files/ppp_correctional_health_care.pdf.

²¹² *Id.*

²¹³ *Id.*

²¹⁴ PEW CHARITABLE TRUSTS & MACARTHUR FOUND., MANAGING PRISON HEALTH CARE SPENDING 8 (2013) [hereinafter MANAGING PRISON SPENDING], available at http://www.pewtrusts.org/~media/legacy/uploadedfiles/pes_assets/2014/PCTCorrectionsHealthcare.Brief050814pdf.pdf; see also William J. Rold, *Thirty Years After Estelle v. Gamble: A Legal Retrospective*, 14 J. CORRECTIONAL HEALTH CARE 11, 18 (2008), available at <http://jcx.sagepub.com/cgi/content/abstract/14/1/11>.

providing health care to confined individuals. Policies and procedures must clearly define the purpose and instances in which telemedicine may be used in a correctional facility. Regardless of the type and combination of technologies used to provide medical care, the basic principals [sic] governing the physician/patient relationship must remain intact. This responsibility can be met in large part by ensuring that telemedicine policies and procedures comply with the National Commission on Correctional Health Care's Standards for Health Services that have been developed for prisons, jails and juvenile detention and confinement facilities.²¹⁵

When an inmate needs to go outside the prison to receive treatment he or she must be accompanied by a guard.²¹⁶ "Expenses add up quickly when inmates must travel long distances to see specialists or stay overnight in hospitals. The Legislative Analyst's Office in California, for example, reported that medically related guarding and transportation costs for one inmate can exceed \$2,000 per day."²¹⁷

Given these cost increases, and the public safety aspects of taking prisoners for treatment outside the facility, it is not surprising that many states have turned to telehealth.²¹⁸ "This strategy can help improve prisoners' access to primary care doctors and specialists while reducing transportation and guarding expenses. Additional public safety benefits can be realized as well because inmates will likely need fewer trips off the prison grounds for medical care."²¹⁹

"In 2010, 26 of 44 states surveyed by the American Correctional Association were using telehealth to deliver medical

²¹⁵ *Telemedicine Technology in Correctional Facilities*, NAT'L COMMISSION ON CORRECTIONAL HEALTH CARE, <http://www.ncchc.org/telemedicine-technology-in-correctional-facilities> (last visited Aug. 1, 2015).

²¹⁶ PEW CHARITABLE TRUSTS & MACARTHUR FOUND., STATE PRISON HEALTH CARE SPENDING: AN EXAMINATION 1 (2014) [hereinafter THE PEW REPORT], available at <http://www.pewtrusts.org/~media/Assets/2014/07/StatePrisonHealthCareSpendingReport.pdf>.

²¹⁷ *Id.* at 9.

²¹⁸ *Id.* at 13.

²¹⁹ *Id.*; see also Debra Larsen et al, *Prison Telemedicine and Telehealth Utilization in the United States: State and Federal Perceptions of Benefits and Barriers*, 10 TELEMEDICINE J. & E-HEALTH S-1, S-81 (Supp. 2004) ("The most common benefits cited were improved security, personnel safety, costs savings, and access to specialists. The most common barriers cited were costs of technology, resistance from medical personnel, lack of staff technical expertise, and difficulties coordinating services.").

services to inmates.”²²⁰

Videoconferencing between an off-site doctor and an incarcerated offender is a common application of telehealth in correctional settings. Exam cameras, monitors, and electronic stethoscopes allow doctors to capture vital signs and treat patients remotely while nurses or physician assistants at the correctional facilities operate equipment and provide support. Telehealth is expanding into psychiatry, radiology, cardiology, neurology, and even emergency care. . . . In Texas, many prisoners complaining of chest pain are now connected to monitors and evaluated by an off-site clinician to determine whether a hospital visit is needed. In the past, the typical response to such symptoms was an immediate trip to a hospital.²²¹

Even the Texas Civil Rights Project, which “has filed dozens of lawsuits against the Texas Department of Criminal Justice and its medical contractors citing medical negligence,”²²² recommended the expansion of telemedicine “as a way to save costs and transportation time, as well as provide quality care, . . . contingent on a substantial increase in time spent per

²²⁰ PEW CHARITABLE TRUSTS & MACARTHUR FOUND., *MANAGING PRISON HEALTH CARE SPENDING* 8 (2013) [hereinafter *MANAGING PRISON SPENDING*], available at http://www.pewtrusts.org/~media/legacy/uploadedfiles/pes_assets/2014/PCTCorrectionsHealthcare.Brief050814.pdf; see also William J. Rold, *Thirty Years After Estelle v. Gamble: A Legal Retrospective*, 14 *J. CORRECTIONAL HEALTH CARE* 11, 18 (2008), available at <http://jcx.sagepub.com/cgi/content/abstract/14/1/11>.

²²¹ *Id.*

²²² Seema Yasmin, *Texas Prisons Try Telemedicine to Curb Spending*, DALL. MORNING NEWS (Jan. 19 2015, 11:15 PM), <http://www.dallasnews.com/news/metro/20150119-texas-prisons-try-telemedicine-to-curb-spending.ece>; see also Katie Dvorak, *Texas Prisons Turn to Telemedicine to Reduce Costs*, FIERCEHEALTH IT (Jan. 20, 2015), <http://www.fiercehealthit.com/story/texas-prisons-turn-telemedicine-reduce-costs/2015-01-20> (“Texas is not the only state to use telemedicine in an effort to cut costs. In 2013, Louisiana expanded its use of the tech to treat inmates in an attempt to improve care while facing budget challenges. The state has used telemedicine at prisons since 1997 when it began offering access to specialists in pulmonary, orthopedics, diabetic and dermatology clinics.”); Marsha Shuler, *State Expands Use of Telemedicine for Prison Inmates*, ADVOCATE (Dec. 3, 2013), <http://theadvocate.com/news/7691156-123/state-expands-use-of-telemedicine> (stating that Louisiana offered “17 telemedicine clinics in dermatology, orthopedics, general surgery, infectious disease, ophthalmology, cardiology, oncology, rheumatology, ear, nose and throat, endocrinology, pulmonary, neurosurgery, urology, neurology, gastroenterology, HIV and Hepatitis C”).

patient.”²²³

The 2013 Pew Report concludes that:

Health care and corrections spending will continue to pose a fiscal challenge to state lawmakers in the years ahead.

....

This report demonstrates that four strategies—telehealth, outsourcing care, Medicaid financing for eligible inmates, and medical or geriatric parole—offer states promising opportunities to save taxpayer dollars and maintain or improve the quality of inmate care while protecting public safety.²²⁴

The potential cost savings through the use of telemedicine are particularly important because of the limited availability of federal Medicaid funds for inmate care.²²⁵ “[O]fficials from New York and Colorado—two . . . states that expanded Medicaid—estimated that 80 percent and 90 percent of state prison inmates, respectively, were likely eligible for Medicaid.”²²⁶ Officials in North Carolina, a state that did not expand Medicaid, estimated that 2 percent of inmates are likely eligible at any given time.²²⁷ However, Federal Medicaid reimbursement is generally available only for inpatient care delivered in a hospital or nursing home, when inmates are inpatients for at least 24 hours.²²⁸

According to a December 2012 report by the Office of the State

²²³ TEX. CIVIL RIGHTS PROJECT, “A THIN LINE:” THE TEXAS PRISON HEALTHCARE CRISIS AND THE SECRET DEATH PENALTY 19 (2011), *available at* http://www.texascivilrightsproject.org/docs/thinline/terp_thinline_2011.pdf.

²²⁴ PEW CHARITABLE TRUSTS & MACARTHUR FOUND., MANAGING PRISON HEALTH CARE SPENDING 8 (2013) [hereinafter MANAGING PRISON SPENDING], *available at* http://www.pewtrusts.org/~media/legacy/uploadedfiles/pcs_assets/2014/PCTCorrectionsHealthcare.Brief050814pdf.pdf; *see also* William J. Rold, *Thirty Years After Estelle v. Gamble: A Legal Retrospective*, 14 J. CORRECTIONAL HEALTH CARE 11, 18 (2008), *available at* <http://jcx.sagepub.com/cgi/content/abstract/14/1/11>.

²²⁵ *See* Letter from Carolyn L. Yocom, Dir., Health Care, U.S. Gov’t Accountability Office, to Hon. Fred Upton, Chairman, H. Comm. on Energy & Commerce, and Hon. Joseph Pitts, Chairman, Subcomm. on Health, H. Comm. on Energy & Commerce 1 (Sept. 5, 2014), *available at* <http://www.gao.gov/assets/670/665552.pdf> (noting that Federal law generally does not permit states to obtain federal Medicaid matching funds for inmates).

²²⁶ *Id.* at 4.

²²⁷ *Id.*

²²⁸ *Id.* at 1; *see also* 42 C.F.R. § 435.1009(a)(1) (2015) (stating that federal financial participation is “not available in expenditures for services provided to [i]ndividuals who are inmates of public institutions”).

Comptroller, New York “could save \$20 million annually” if it used Medicaid to finance allowable inpatient services provided to eligible incarcerated individuals.²²⁹

VIII. CONCLUSION

The use of telehealth and telemedicine will undoubtedly expand exponentially in the next ten to twenty years. They have the potential to reduce costs, improve access and improve the quality of care. However, numerous barriers must be overcome, including the institutional reluctance of the medical profession to move fast, particularly in the absence of extensive data on safety and effectiveness. It is to be hoped that policymakers will strike an appropriate balance between innovation and patient protection.²³⁰

²²⁹ THOMAS P. DINAPOLI, PAYMENTS FOR INMATE HEALTH CARE SERVICES: DEPARTMENT OF CORRECTIONS AND COMMUNITY SUPERVISION 1 (2012) *available at* <http://osc.state.ny.us/audits/allaudits/093013/10s41.pdf>.

²³⁰ For a useful survey of the current situation, see Deanna Okrent, *Telemedicine: The Promise and the Challenges*, AN ALLIANCE FOR HEALTH REFORM, TOOLKIT 1, 1–3 (June 2015) http://allhealth.org/publications/AHR-Telemedicine-Toolkit_June-2015_164.pdf.