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RECOGNIZING THE NATURE OF AMERICAN MEDICAL PRACTICE: AN ARGUMENT FOR ADOPTING FEDERAL MEDICAL LICENSURE

Michael S. Young* and Rachel K. Alexander**

I. INTRODUCTION

Medical practice in the United States is unlike other areas of regulation that depend on variances in state or local laws, customs, or circumstances. For example, unlike the legal profession, in which lawyers face diverse laws even in related subjects in each state,¹ medical practice remains generally the same in each state. A person requiring medical attention in Oregon is not likely to be substantially different than a person with the same ailment in Virginia. Thus, while some professions, such as legal practice, may still be effectively and practically regulated by the states, medical practice is of such nature and quality as to require broader regulation. As medical historian Richard Harrison Shryock observed, "Lawyers have been confronted by fifty somewhat different codes, whereas medicine is presumably the same in all states."²

For these reasons, this Article discusses the viability of and preference for federal medical licensing.³ Part II traces the historical development of the state medical license, which was originally intended to protect the public health from "quacks and charlatans" in an era of unregulated medical training and limited travel options.⁴ Part III outlines the quandary presented to physicians practicing in this era of interstate

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^{1.} For example, for laws governing validity of wills in Alabama, Arkansas, Oregon, South Dakota, and Wyoming, see Ala. Code §§ 43-8-160 to -231; Ark. Code Ann. §§ 28-24-101 to -105; OR. REV. STAT. §§ 112.225-.435; S.D. Codified Laws §§ 29A-2-501 to -517; WY. STAT. Ann. §§ 2-6-101 to -306.

^{2.} RICHARD HARRISON SHRYOCK, MEDICAL LICENSING IN AMERICA, 1650-1965, 113 (1967).

^{3.} See infra notes 4-367 and accompanying text.

^{4.} See infra notes 7-200 and accompanying text.

medicine, including the many medical and non-medical forms of state governmental legislation and regulations that control medical practice within and across state borders.⁵ Finally, Part IV discusses how a federal medical license can ease some burdens on medical practice, while enhancing opportunities to improve public health.⁶

II. THE HISTORICAL DEVELOPMENT OF MEDICAL EDUCATION AND LICENSURE

"[T]he objective of a professional licensure system is to further the public welfare by the use of a public mechanism to assure a minimum level of competence of those engaged in a professional activity."⁷ This historical section will trace how the American doctor has changed from training through a single doctor-mentor (without formal education or examination) to a nationally accredited medical-school graduate who, despite meeting national licensing standards, practices with a state-issued medical license.

A. Early Medical Practitioner Training and Licensing

Attempts at medical practice and regulation have existed since antiquity.⁸ By the thirteenth century, British universities produced a "doctor-scholar" known as the Physician.⁹ In the Middle Ages, European medical licensure was regulated by some combination of state, university, and physicians, but the state would usually not participate in the licensure process if a university under the Catholic Church (as many were) participated.¹⁰ After the Reformation, the Royal College of Physicians, established in 1518, administered licensure in Great Britain for the "art of physic," which included examining the candidate unless he was an Oxford

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^{5.} See infra notes 201-345 and accompanying text.

^{6.} See infra notes 346-67 and accompanying text.

^{7.} Jefferson B. Fordham, Medical Licensure, 192 J. AM. MED. ASS'N 832, 832 (1965). From his New York Times Obituary: "Professor Fordham served as dean of the [University of Pennsylvania's] law school from 1952 until he reached emeritus status in 1970. From 1972 until his retirement [in 1993] he was professor of law at the University of Utah in Salt Lake City." http://www.nytimes.com/1994/06/29/us/jefferson-b-fordham-88-dies-law-dean-at-u-ofpennsylvania.html?pagewanted=1.

^{8.} Nathan A. Womack, *The Evolution of the National Board of Medical Examiners*, 192 J. AM. MED. ASS'N 817, 817 (1965). See Code of Hammurabi and Hippocratic Oath, and later Prayer of Moses Maimonides.

^{9.} David S. Cannom, The Development of Medical Education in the United States, 33 CONN. MED. 124 (1969).

^{10.} Womack, supra note 8, at 817-18.

or Cambridge University graduate.11

When the American Colonies were being founded, Physician, Chirurgen,¹² and Apothecary were medical practitioners in Britain.¹³ The Physician (predecessor to the modern-day internist¹⁴) was university trained, practiced medicine on London's upper classes, and had the greatest prestige among medical practitioners as the learned profession.¹⁵ The Chirurgen (predecessor to the modern-day surgeon¹⁶) worked with his hands.¹⁷ The Apothecary (predecessor to the modern-day pharmacist¹⁸) kept a drug shop.¹⁹ While only the Physician was properly addressed with the honorific title "doctor," anyone who practiced medicine might have been called "doctor.²⁰

The medical practitioners who came to the American Colonies were surgeons and apothecaries, not physicians; therefore, the American

20. Id. at 6.

^{11.} Womack, *supra* note 8, at 818. This independent professional membership organization granted national medical licensure. Our Mission, Royal College Of Physicians, http://www.rcplondon.ac.uk/About-the-college/mission/Pages/Overview.aspx. (last visited March 13, 2010).

^{12.} Or chirurgeon: surgeon. Merriam-Webster'sWEBSTER'S Dictionary 199 (10th New Collegiate ed. 2001).

^{13.} SHRYOCK, supra note 2, at 5.

^{14.} An internist is a specialist in internal medicine, which is a branch of medicine that deals with the diagnosis and treatment of diseases not requiring surgery. Who We Are, American Board of Internal Medicine, http://www.abim.org/about/default.aspx. (last visited March 13, 2010).

^{15.} SHRYOCK, supra note 2, at 5-6.

^{16.} The ACS Achieves, American College of Surgeons, http://www.facs.org/archives/index.html (last visited March 17, 2010). A surgeon is a specialist in the diagnosis and treatment of diseases requiring surgery. *Id.* The ACS Archives provide:

The American College of Surgeons (ACS) was established in 1913, at the initiative of Franklin Martin, MD, FACS, Chicago, IL, as a surgical society dedicated to promoting the highest standards of surgical care through education of, and advocacy, for its Fellows and their patients, and to safeguarding standards of care in an optimal and ethical practice environment.

Id.

^{17.} SHRYOCK, supra note 2, at 5.

^{18.} Pharmacotherapy, 28(6):816-817 (2008). "[P]harmacists will be health care providers who are accountable for optimal medication therapy in the prevention and treatment of disease." *Id.* Pharmacotherapy, 28(6):816-817 (2008);

http://www.pharmacist.com/AM/Template.cfm?Section=About_APha2&Template=/TaggedPage/TaggedP agcDisplay.cfm&TPLID=83&ContentID=19994 ("The American Pharmacists Association (APhA) is the organization whose members are recognized in society as essential in all patient care settings for optimal medication use that improves health, wellness, and quality of life." About APhA, American Pharmacists Association, http://www.pharmacist.com/AM/Template.cfm?Section

⁼About_APha2&Template=/TaggedPage/TaggedPageDisplay.cfm&TPLID=83&ContentID=19994 (last visited March 13, 2010); http://www.accp.com/about/index.aspx ("The American College of Clinical Pharmacy (ACCP) is a professional and scientific society that provides leadership, education, advocacy, and resources enabling clinical pharmacists to achieve excellence in practice and research." About ACCP, American College of Clinical Pharmacy, http://www.accp.com/ about/index.aspx (last visited March 13, 2010).

^{19.} SHRYOCK, *supra* note 2, at 5.

Colonies did not have the "two-tier system" of England.²¹ In America, the terms "doctor," "surgeon," and "physician" came to be used interchangeably.²² If a trained medical practitioner was not available in America, the minister, who was typically the most educated member of the community, would read a medical text and dispense treatment and, in isolated communities, lay practitioners provided medical care.²³

In seventeenth- and eighteenth-century Britain, voluntary professional organizations developed for Physician, Chirurgen, and Apothecary with the consent of the English Crown and Parliament.²⁴ The English government sought to regulate medical training and licensing in the British Isles, but it never imposed such regulations in the American Colonies.²⁵ Each colony acted (or failed to act) independently, which set the stage for state medical licensure in the United States federal system of government.²⁶

In 1649, the Province of Massachusetts (that is, Boston), adopted the first medical-licensing law in the American Colonies, which punished practicing medicine without a license by fine.²⁷ New Jersey created the first governmental licensing system for an entire colony in 1772, which required passing an examination administered by two supreme court judges, in order to practice "Physic and Surgery," and fined persons for practicing without a license.²⁸

For the first 150 years in Colonial America, medicine was learned by apprenticeship.²⁹ An apprentice was indentured to a doctor mentor for medical training, and a diploma was awarded at the conclusion of the apprenticeship.³⁰ The apprenticeship could last five to eight years.³¹ There were also learning opportunities through medical service in the British Army.³² By the eighteenth century, it was possible to obtain a liberal arts education in the American Colonies at Harvard, William and Mary, or

^{21.} Lester S. King, II, Medical Education: The Early Phases, 248 J. AM. MED. ASS'N 731, 731 (1982).

^{22.} SHRYOCK, supra note 2, at 9.

^{23.} King, II, supra note 21, at 731.

^{24.} SHRYOCK, supra note 2, at 7.

^{25.} Wilhelm Moll, History of American Medical Education, 2 Br. J. MED. EDUC. 173, 174 (1968).

^{26.} King, II, supra note 21, at 732.

^{27.} SHRYOCK, supra note 2, at vii, 14.

^{28.} *Id.* at 17-18. Physic was medicine practiced by physicians, *i.e.*, non-surgeons. 1965. *Id.* at 9. The concept of "Physic and Surgery" is perpetuated in state medical boards that cover "Medicine and Surgery."." *See, e.g.*, Nebraska, Medicine and Surgery, Nebraska Department of Health and Human Services, http://www.hhs.state.ne.us/crl/medical/medsur/medindex.htm. (last visited March 13, 2010).

^{29.} Womack, supra note 8, at 818.

^{30.} Cannom, supra note 9, at 124.

^{31.} Moll, supra note 25, at 173.

^{32.} Id.

Yale, among others, that served as preliminary studies for medical education.³³

American men wanting a Medical Doctor ("M.D.") degree went to Europe, typically Leiden or a Scottish university.³⁴ From the 1760s through the Revolutionary War, the University of Edinburgh's medical school regularly provided medical education leading to the M.D. degree for Americans studying abroad.³⁵

B. Early Attempts at American Medical Schools and Licensing

In 1765, the first American medical school was founded at the College of Philadelphia, which was affiliated with what is now the University of Pennsylvania.³⁶ The medical school had a teaching hospital, the Pennsylvania Hospital that was founded in 1755, where attending³⁷ physicians trained their apprentices.³⁸

The medical school's founder, Dr. John Morgan, had superb medical training for an American Colonist: apprenticeship for six-years with a leading colonial physician, liberal arts education, pharmacy work, work with a military surgeon for four years, and training abroad in London hospitals and at the University of Edinburgh, from which he received his M.D. degree.³⁹ Dr. Morgan returned to America to be appointed professor of theory and practice of medicine at the College of the Philadelphia.⁴⁰

In Dr. Morgan's two-day speech for the medical school founding ceremony in 1765, he made five chief points that are still relevant today:

(1) A medical school ought to be an integral part of a college or university.

(2) Hospital instruction should form an integral part of medical school.

(3) Young men should come to the study of medicine with a liberal education.

(4) The curriculum should follow a graded order from anatomy to clinical instruction and experience.

^{33.} King, II., supra note 21, at 731.

^{34.} Id.

^{35.} William Frederick Norwood, The Mainstream of American Medical Education, 1765-1965, 128 ANN. N.Y. ACAD. SCI. 463, 464 (1965).

^{36.} SHRYOCK, supra note 2, at 16.

^{37.} Merriam-Webster's Dictionary 74 (9th New Collegiate ed. 1989) (serving as a physician on the staff of a teaching hospital).

^{38.} Norwood, supra note 35, at 463.

^{39.} King, II, supra note 21, at 731.

^{40.} Moll, *supra* note 25, at 175.

(5) Teachers should have timeout to experiment and search for the secrets of nature.41

Dr. Morgan hoped to develop an elite class of physicians trained in the Edinburgh style⁴² to practice medicine in the upper-class London tradition.⁴³ He wanted to establish the two-tier system that distinguished university-trained physicians from apprentice-trained medical practitioners.⁴⁴ Dr. Morgan believed that apprenticeship was good enough training for medical practitioners in surgery and midwifery.⁴⁵ In addition, the physician should be a professional and not sell drugs like the apothecary tradesman.⁴⁶

Dr. Morgan also wanted to establish a medical society, like the Royal College of Physicians, to dictate standards and act as the licensing and discipline board for medical practitioners.⁴⁷ Significant to the concept of future federal medical licensure, Dr. Morgan "hoped to found an elect College of Physicians which would hold examinations and grant licenses for the colonies as a whole."⁴⁸

However, due to then-existing political constraints, Dr. Morgan's goal of regulating medical practice on a colony-wide scale, as opposed to a colony-by-colony basis, failed.⁴⁹ Each colony and each state, after independence, could make its own licensing rules that would not apply in other states.⁵⁰ In the immediate post-Revolutionary War era, the United States Congress was not ready to promulgate federal medical licensure using a broadly defined right to regulate interstate commerce.⁵¹ Also, the private medical guild monopoly system of class-conscious Great Britain did not work in early America.⁵²

The College of Philadelphia graduated its first class with the M.B.⁵³

^{41.} Cannom, supra note 9, at 125 (internal citation omitted).

^{42.} SHRYOCK, *supra* note 2, at 16. The Edinburgh-style medical school was affiliated with a college liberal arts faculty, while the London-style medical school was hospital based. *Id.*

^{43.} Id. at 16-17.

^{44.} King, II, supra note 21, at 732.

^{45.} Moll, *supra* note 25, at 175.

^{46.} King, II, supra note 21, at 732.

^{47.} Id.

^{48.} SHRYOCK, supra note 2, at 17 (emphasis added).

^{49.} Id.

^{50.} King, II, supra note 21, at 732.

^{51.} See Gibbons v. Ogden, 22 U.S. 1 (1824) (determining that the United States Congress has the power, granted by the Commerce Clause of the United States Constitution, to regulate interstate commerce). Id.

^{52.} King, II, supra note 21, at 732.

^{53.} Shorter Oxford English Dictionary 1726 (5th ed. 2002) (Latin Medicinae Baccalaureus Bachelor of Medicine).

degree in 1768.⁵⁴ In 1767, King's College (later Columbia University) founded a medical school and, in 1770, conferred the first M.D. degree in the Colonies.⁵⁵ By the end of the eighteenth century, Harvard, Dartmouth, and Transylvania University in Kentucky had also established medical schools.⁵⁶ These five medical schools were modeled on the Europeanuniversity style.⁵⁷ However, in 1800, the majority of American-trained doctors still undertook apprenticeship with a doctor mentor and then went into medical practice without any medical school education.⁵⁸

As the Revolutionary War ended, state medical societies, such as the Massachusetts Medical Society,⁵⁹ began forming to advocate testing for licensure, administered by existing medical professionals; by 1815, medical societies existed in all the original colonies and by 1830 in nearly all the states.⁶⁰ Most states delegated their medical-licensing authority to the state medical society and developed a standard under which unlicensed practitioners who collected a medical service fee were fined.⁶¹

Under this system, there existed "no unified qualification for licensure."⁶² Some states even had separate licensing boards for different areas within the same state.⁶³ However, the M.D. degree was effectively the "license" to practice medicine.⁶⁴ For example, after 1803, a man was licensed to practice medicine in Massachusetts by either receiving a Harvard Medical School diploma or by passing a medical society examination.⁶⁵ Soon other states adopted this dual pathway for medical licensing—allowing those seeking licenses to be licensed following receipt of an M.D. degree or obtaining a passing score on an examination administered by either a medical board or medical society.⁶⁶ This

^{54.} Norwood, supra note 35, at 465.

^{55.} Id.

^{56.} Id. at 466.

^{57.} Donald E. Pitzer, Standards of Early American Education, 66(4) Ohio ST. Med. J. 364, 364 (1970).

^{58.} Lester S. King, VI., Medical Education: The AMA Surveys the Problems, 248 J. AM. MED. ASS'N 3017, 3017 (1982).

^{59. &}quot;The Massachusetts Medical Society, the oldest continuously operating medical society in the United States, was established as a professional association of physicians by the Commonwealth of Massachusetts in an Act of Incorporation, Chapter 15 of the Acts of 1781, just days after the Revolutionary War's climactic Battle of Yorktown." Massachusetts Medical Society, Our History, http://www.massmed.org/Content/NavigationMenu10/AboutMMS/History/History.htm (last visited March 13, 2010).

^{60.} SHRYOCK, supra note 2, at 23.

^{61.} Id. at 24-25.

^{62.} Womack, supra note 8, at 819.

^{63.} Id. at 818.

^{64.} Pitzer, supra note 57, at 365.

^{65.} SHRYOCK, supra note 2, at 25-26.

^{66.} SHRYOCK, supra note 2, at 26.

licensing scheme created high demand for the M.D. degree.⁶⁷

It was easier to get a license if one had an M.D. degree, but once doctors had a license, there was no distinction among them, although the public may have held physicians with an M.D. degree in higher regard.⁶⁸ However, some medical societies granted the M.D. degree to a licensee passing his licensure examination without requiring that the applicant attend medical school.⁶⁹

C. Exploding American Frontiers but Imploding Standards for Medical Schools and Licensing

While American medical schools did not provide much clinical training, they did require apprenticeship before entering medical school; therefore, medical school graduates had the advantage of formal medical education as well as practical experience through apprenticeship.⁷⁰ The few American medical schools in existence during early nineteenth centuries were held in high regard.⁷¹ However, M.D. degree-granting medical schools multiplied as the American population moved westward during the nineteenth century.⁷² For the American public, "more doctors was of greater importance than higher standards."⁷³ Shortly, the M.D. degree "carried with it little evidence of medical education or medical ability."⁷⁴

Meanwhile in Europe, after the American Revolution, Paris began to assume importance for medical training.⁷⁵ From the 1820s through the 1870s, European countries (in particular France and later Germany) standardized medical care and advanced medical science (for example, biochemistry and bacteriology),⁷⁶ and the British Parliament passed the Act of 1858 that set up a National Registry for regular practitioners maintained by the General Council of Medical Education and Registration,⁷⁷ an organization that reported to the Privy Council.⁷⁸ While

- 72. Moll, supra note 25, at 176.
- 73. Pitzer, supra note 57, at 366 (emphasis in the original).
- 74. Womack, supra note 8, at 819.
- 75. Norwood, supra note 35, at 466.
- 76. SHRYOCK, supra note 2, at 27, 33, 38-40, 43.

Allopathic practitioners, whose mode of healing - allopathy - became modern biomedicine,

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^{67.} King, II, supra note 21, at 734.

^{68.} Id. at 733.

^{69.} SHRYOCK, supra note 2, at 26.

^{70.} Id. at 27.

^{71.} King, II, supra note 21, at 733.

^{77.} Sir Donald Irvine, A Short History of the General Medical Council, 40 MEDICAL MED. EDUCATION EDUC. 202, 204 (2006). Regular medicine status is elevated by the public law:

European medicine advanced, the United States medical education, practice, and licensing systems were ineffective for advancing medicine in the United States.⁷⁹ By 1830, the well-trained American doctor undertook three distinct training components: apprenticeship, self-education from books, and medical school instruction.⁸⁰ By the mid-nineteenth century, the preceptor could no longer properly provide clinical training.⁸¹ The number of medical schools increased from five schools in 1800 to 38 schools in 1849.⁸² The majority of schools during this period were commercial ventures, known as "proprietary" medical schools.⁸³ Homeopathic,⁸⁴ eclectic,⁸⁵ botanic,⁸⁶ and other sectarian schools of medicine battled "regular"⁸⁷ medicine for supremacy in delivering medical

Id.

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80. King, VI, supra note 58, at 3017-3018.

- 82. King, II, supra note 21, at 734.
- 83. Moll, supra note 25, at 176.

84. World Health Organization, Legal Status of Traditional Medicine and Complementary/Alternative Medicine: A Worldwide Review, 3 (2001). Homeopathy uses small medicine doses that mimic diseases:

Homeopathy was first mentioned by Hippocrates (462–377 BC), but it was a German physician, Hahnemann (1755–1843), who established homeopathy's basic principles: law of similarity, direction of cure, principle of single remedy, the theory of minimum diluted dose, and the theory of chronic disease (2). In homeopathy, diseases are treated with remedies that in a healthy person would produce symptoms similar to those of the disease. Rather than fighting the disease directly, medicines are intended to stimulate the body to fight the disease.

Id.

86. Michael A. Flannery, *The Early Botanical Medical Movement as a Reflection of Life, Liberty, and Literacy in Jacksonian America*, 90(4) J. MED. LIBR. ASS'N 442 (2002). "[T]he Thomsonian movement eschewed schooling and science for an empirical embrace of nature's apothecary, a populist rhetoric that belied its own complex and extensive infrastructure of polemical literature." *Id.*

87. World Health Organization, Legal Status of Traditional Medicine and Complementary/Alternative Medicine: A Worldwide Review, 1 (2001). "Allopathic medicine ... refers to the broad category of medical practice that is sometimes called Western medicine, biomedicine, scientific medicine, or modern medicine." *Id.*

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undertook relatively lengthy and expensive training after which they were awarded qualifications from a university or a medical corporation (physicians, surgeons, or apothecaries). They resented competitors who were less well qualified and felt cheated out a just return on their investment. The allopaths thus led the drive that resulted eventually in the 1858 Medical Act, which established a General Council of Medical Education and Registration (abbreviated General Medical Council in 1951). The purpose of the Act was to bring order to the prevailing chaotic state of affairs by distinguishing "qualified" from unqualified practitioners. The Council was to implement the Act.

Great Britain effectively created a "public authority" for national medical licensure. Carleton B. Chapman, *Doctors and Their Autonomy: Past Events and Future Prospects*, 200 SCIENCE 851, 852 (1978).
SHRYOCK, *supra* note 2, at 38-40.

^{81.} Id. at 3020.

^{85.} Medical Education, Encyclopedia of Chicago,

http://www.encyclopedia.chicagohistory.org/pages/805.html (last visited March 13, 2010). "Eclectic practitioners, another popular alternative, claimed to select the most effective forms of medical treatment from among all available therapies and avoided the depleting methods of bleeding and purging that characterized "regular" medicine." *Id.*

services in the age of proprietary medical schools.⁸⁸ Proprietary medical schools dominated the medical education landscape from the early eighteenth century until 1910.⁸⁹

A professor in a proprietary medical school was paid directly by student fees, so the professor had no incentive to apply admission standards or fail admitted students.⁹⁰ The proprietary medical schools were not affiliated with liberal arts faculties, such as in the Edinburgh-training model followed in Philadelphia by Dr. Morgan, or with hospitals, such as in the London-training model.⁹¹ Education was by didactic lecture that did not change from year to year, even if the medical student was required to take a two-year course.⁹² There was little laboratory equipment.⁹³ For instance, the stethoscope was used for thirty years in Europe before being mentioned in the 1868 Harvard Medical School catalog.⁹⁴ A few schools resorted to grave robbing to obtain anatomic material for their wretched dissection laboratories.⁹⁵

By the mid-nineteenth century, health cults and politics were so powerful that many state licensing boards were abolished or had their powers reduced.⁹⁶ By 1845, at least eight states failed to enact any medical licensing standards, and even more states had repealed earlier medicallicensing regulations.⁹⁷ Out of desperation to raise the standard of medical practice, some medical leaders called for federal medical licensure that was left unrealized because the federal government was indifferent to national legislation for licensing for unclear reasons.⁹⁸

Medical historian Robert P. Hudson reported that the best account of the contemporary scene came from R.H. Fitz, stating:

To his mind laws regulating medical practice were unpopular

^{88.} SHRYOCK, supra note 2, at 28-29.

^{89.} Pitzer, supra note 57, at 365.

^{90.} Moll, *supra* note 25, at 176. Admission standards were lowered as medical schools began competing for students. *Id.* King, II, *supra* note 21, at 734. Running medical schools was profitable because all a local physician group had to do was get a state charter for the medical school and start collecting student fees. *Id.* The three-year apprenticeship pre-admission requirement was circumvented by the student or supposed mentor giving false statements, or the medical schools not bothering to review the documentation. *Id.* Before 1820, the graded curriculum and admission standards were abandoned, and some medical schools were founded without university affiliation. *Id.*

^{91.} SHRYOCK, supra note 2, at 16-17, 28.

^{92.} Pitzer, supra note 57, at 365.

^{93.} Id.

^{94.} Id.

^{95.} Id.

^{96.} Womack, supra note 8, at 818.

^{97.} Shryock, supra note 2, at 30.

^{98.} Id. at 33, 35.

because (1) they were considered class legislation, (2) legislators suspected the motives of regular physicians, (3) the populace believed every person had a right to choose his own medical attendant, and (4) regular physicians themselves objected out of a belief that every act regulating irregulars would exert a protective influence upon them.⁹⁹

D. Medical Reform Eventually Succeeds

In 1847, the American Medical Association ("AMA") was founded for regular practitioners with the goals of (1) increasing medical education and licensing standards and (2) eliminating direct medical licensing after medical school graduation.¹⁰⁰ However, the members' proprietary medical school and practice interests initially limited the AMA's effectiveness because the physicians did not want to stop collecting their medical school student fees if their schools were forced to close; nor did they want to quit practicing medicine because they could not secure a medical license from the medical "regulars" on the licensing boards.¹⁰¹

After the Civil War, the AMA's political stability and efforts led to reinstitution of state medical licensing boards as known today, beginning with Texas in 1873.¹⁰² By 1877, an AMA resolution urged that "uniform elevated standard of requirements for the degree M.D. should be adopted by all medical schools in the United States."¹⁰³ Initially, there was a successful push to raise premedical education standards, moving towards *high school* graduation, and encouraging biomedical research, as was being performed in the best European medical schools.¹⁰⁴

Medical historian Samuel L. Baker detailed the medical-licensing developments by reviewing legislative session laws for the 48 contiguous

^{99.} Robert P. Hudson, Abraham Flexner in Perspective: American Medical Education 1865-1910, 46 BULLETIN HISTORY OF MED. 545, 557 n.54 (1972) (citing R.H. Fitz, The Legislative Control Of Medical Practice, 16 MED. COMMC'NS OF MASS. MED. SOC. 306 (1894)). The 1850s was the high watermark of "medical secularism" with much "quackery" thrust upon the populace. Id. Norwood, supra note 35, at 467. Homeopathy and eclectism survived until early in the 20th century but was eventually absorbed allopathic or regular medicine. Id. Osteopathy had sectarian successful but over the years has embraced much that allopathic medicine had to offer. Id. See What is Osteopathic Medicine?, American Association of Colleges of Osteopathic Medicine, http://www.aacom.org/about/osteomed/Pages/default.aspx (last visited March 13, 2010). An in depth exploration of osteopathic medicine falls outside the scope of this article, but it can be said that osteopathic physicians can be incorporated into the proposed federal medical licensure system by using the existing osteopathic accrediting bodies and developing standards, as needed. Id.

^{100.} SHRYOCK, supra note 2, at 33-35.

^{101.} Id.

^{102.} Womack, supra note 8, at 818.

^{103.} Pitzer, supra note 57, at 368.

^{104.} SHRYOCK, supra note 2, at 53-54.

states from 1865 until the Flexner Report¹⁰⁵ in 1910.¹⁰⁶ The major medical licensing reforms (1) established state boards to administer licensure, (2) required medical practitioners to register with the state board, (3) required testing for all license candidates, even if the candidate possesses a medical school-granted M.D. degree, and (4) escalated curriculum length and content requirements for medical schools to be approved.¹⁰⁷ Half of the states and territories enacted medical licensure by 1881, and only six states lacked medical licensure by 1890.¹⁰⁸ By 1890, over half of the states and territories had at least one medical board that could disapprove a medical college diploma.¹⁰⁹ In the 1890s and 1900s, centralized medical licensure existed at the state level, all license applicants started to be examined, and the required medical school curriculum for licensing applicants became four years.¹¹⁰

In particular, Illinois pioneered the unitary state medical board registration for all physicians, regardless of practice type (such as, allopathic, homeopathic, and so forth), but Illinois had a separate state board of health that actually administered medical licensure.¹¹¹ This incorporation of different practice types into licensure reform was necessary for medical licensure progress because it created a level playing field for all medical practitioners.¹¹² The Illinois Board of Health began developing widely disseminated reviews of medical schools.¹¹³ The unitary state medical license board at least excluded untrained practitioners from medical practice, which protected all licensed doctors from competition.¹¹⁴ The Board formulated "in good standing" rules for reviewing all United States and Canadian medical schools, and the annual reports were an important, early step toward setting national standards for medical schools.115

In 1889, the United States Supreme Court affirmed state denial of

^{105.} For a discussion on the Flexner Report, see infra notes 131-38 and accompanying text.

^{106.} Samuel L. Baker, Physician Licensure Law in the United States, 1865-1915, 39 J. HIST. OF MED. & ALLIED SCI. 173, 173 (1984).

^{107.} Id. at 174. The six (year of medical licensure enactment): Maine (1895), Massachusetts (1894), Rhode Island (1895), Connecticut (1893), Utah (1892), and California (1896). Id. at 175-77. 108. Baker, supra note 106, at 192.

^{108.} *Id.*

^{110.} Id.

^{111.} Id. at 181.

^{112.} Id. at 193.

^{113.} Id. at 181-182.

^{114.} Paul Starr, THE SOCIAL TRANSFORMATION OF AMERICAN MEDICINE 102 (1982).

^{115.} SHRYOCK, supra note 2, at 53-54. Over 250 medical schools were reviewed in the 1889 annual report. Id.

medical licensure.¹¹⁶ The 1882 West Virginia statute in question required a doctor to obtain a medical license from the state board of health certifying that the doctor attended a "reputable" medical school or been in practice for ten years before March 8, 1881, or pass an examination.¹¹⁷ Dr. Dent had a diploma from American Medical Eclectic College of Cincinnati, Ohio, which was not deemed reputable, and had only been in practice since 1876.¹¹⁸ Dr. Dent brought his appeal on grounds that the West Virginia statute was unconstitutional as a violation of due process of law under the Fourteenth Amendment as applied to the State.¹¹⁹ The Court found that society must place "reliance" on the doctor's medical license that the doctor is qualified, and there is nothing arbitrary in the statute to support a due process violation.¹²⁰

These medical licensing advances were brought about by the efforts of multiple parties, often working independently, and have continued to evolve through the years.

1. Johns Hopkins University School of Medicine and the Flexner Report

In 1889, the Johns Hopkins Hospital was opened and pioneered an integrated program of internships,¹²¹ residencies,¹²² full-time faculty (not paid directly by student fees), and clinical research, and the hospital set the stage for the founding, four years later, of the Johns Hopkins University School of Medicine.¹²³ The Johns Hopkins medical school followed the German model of two years of basic science followed by two years of clinical science with an integrated teaching hospital experience.¹²⁴ This four-year model has become the most common medical school format used in recent years.¹²⁵

^{116.} Dent v. West Virginia, 129 U.S. 114 (1889).

^{117.} Dent v. West Virginia, 129 U.S. 114, 115 (1889).

^{118.} Dent, 129 U.S. at 115, 118. Pitzer, supra note 57, at 366 (1970). In 1910, the United States and Canada had 457 medical schools of various quality, and 20 were located in Cincinnati, Ohio. Id.

^{119.} Dent, 129 U.S. at 121.

^{120.} Id. at 123-24.

^{121.} ACCREDITATION COUNCIL FOR GRADUATE MEDICAL EDUCATION, GLOSSARY OF TERMS, 5 (2009), http://www.acgme.org/acWebsite/about/ab_ACGMEglossary.pdf. "Intern: Historically, a designation for individuals in the first year of [graduate medical education]. This term is no longer used by the [Accreditation Council for Graduate Medical Education]."]." *Id.*

^{122.} Id. at 7. "Resident: A physician in an accredited graduate medical education specialty program. Residency: A program accredited to provide a structured educational experience designed to conform to the Program Requirements of a particular specialty." Id.

^{123.} Norwood, supra note 35, at 468-69.

^{124.} Id.

^{125.} SHRYOCK, supra note 2, at 61.

The excellence of the Johns Hopkins medical school, post-graduate medical training, and hospital spurred on the medical-reform movement.¹²⁶ The Flexner Report¹²⁷ called Johns Hopkins University School of Medicine "an outright innovation."¹²⁸ At its founding, the school led the way to higher standards by requiring a liberal arts degree for admission.¹²⁹ This requirement came at a time when 50 of 155 medical schools required only the equivalent of a high school education.¹³⁰

Established in 1905, the Carnegie Institute Foundation for the Advancement of Teaching selected Abraham Flexner, a lay educator, to prepare the well-known Flexner Report that was published in 1910, and only Johns Hopkins passed muster.¹³¹ Flexner visited each of the country's medical schools and included a summary of each school in his Report.¹³² The Flexner Report's aim was to establish medicine on a firm scientific basis and to achieve a high uniform standard among the medical schools.¹³³ Finances were thought to be a hindrance to quality medical education and would keep "poor boys" from becoming doctors, but the Flexner Report in 1910 showed that the cost of a quality medical education was comparable to inferior proprietary education.¹³⁴

The Flexner Report mobilized public opinion against "proprietary" medical schools.¹³⁵ Flexner thought all medical schools should be part of universities.¹³⁶ State legislatures and licensing boards used the Flexner Report to encourage proprietary medical schools to raise admission and training standards, as well as to establish a formal medical school evaluation system.¹³⁷ Government intervention was mainly at the state

^{126.} Norwood, *supra* note 35, at 469. See also About Johns Hopkins Medicine, John Hopkins Medicine, http://www.hopkinsmedicine.org/about/ (last visited March 14, 2010).

^{127.} Abraham Flexner, Bulletin Number Four, *Medical Education in the United States and Canada: A Report to the Carnegie Foundation for the Advancement of Teaching* (1910). This landmark work precipitated the culmination of the major medical education reform movement. Flexner recommended closing proprietary schools and reducing the number of American medical schools from 155 to 31, with the aim of raising standards. The Flexner Report contains evaluations of each medical school based on Flexner's site visits.

^{128.} Cannom, supra note 9, at 129.

^{129.} SHRYOCK, supra note 2, at 60.

^{130.} Abraham Flexner, Bulletin Number Four, Medical Education in the United States and Canada: A Report to the Carnegie Foundation for the Advancement of Teaching 29 (1910).

^{131.} SHRYOCK, supra note 2, at 62.

^{132.} Cannom, supra note 9, at 130.

^{133.} Id. at 131.

^{134.} Pitzer, supra note 57, at 366.

^{135.} Norwood, supra note 35, at 469.

^{136.} Cannom, supra note 9, at 130.

^{137.} SHRYOCK, supra note 2, at 63.

level in setting licensure provisions and supporting state universities.¹³⁸

2. American Association of Medical Colleges

The American Medical College Association held its first meeting with 22 medical colleges present in 1876, but attempts at rapidly increasing medical standards led to a breakup of the Association by the early 1880s.¹³⁹ The association was reconstituted as the Association of American Medical Colleges ("AAMC") in 1890.¹⁴⁰ Over several decades, AAMC membership requirements advanced from two years of medical school without admission requirements to four years of medical school with significant admission requirements.¹⁴¹ The AAMC's agenda was aided by the National Confederation of State Medical Examining and Licensing Boards' ("NCSMELB") 1891 licensure requirement of a minimum of three years of medical-school education.¹⁴² By 1905, the NCSMELB had adopted the AAMC-standard curriculum.¹⁴³ In 1911, the AAMC worked with the Council on Medical Education and the Carnegie Foundation to establish proper standards for medical-school evaluation.¹⁴⁴ The AAMC conducted inspections to make sure medical schools were meeting membership requirements.¹⁴⁵

3. Council on Medical Education and Hospitals

In 1904, the AMA established the Council of Medical Education, changed to the Council on Education and Hospitals ("CMEH") in 1920.¹⁴⁶ The CMEH sought help from the Carnegie Foundation to fund the survey of all American medical schools.¹⁴⁷ Shortly thereafter, the CMEH inspected and approved medical schools, as well as hospitals for internships.¹⁴⁸ The CMEH "inspected schools at the request of the state boards of medical examiners, or to keep the records up to date, or to see

140. Id. at 515.

^{138.} Cannom, supra note 9, at 131.

^{139.} Dean F. Smiley, History of the Association of American Medical Colleges 1876-1956, 32 J. MED. EDUC. Education 512, 512-514 (1957).

^{141.} Id. at 515-520.

^{142.} Id. at 515-516.

^{143.} Id. at 519.

^{144.} Id. at 520.

^{145.} Donald G. Kassebaum, Origin of the LCME, the AAMC-AMA Partnership for Accreditation, 67 ACADEMIC MED. 85, 86 (1992).

^{146.} Norwood, supra note 35, at 469.

^{147.} Id.

^{148.} Kassebaum, supra note 145, at 85.

whether an institution had improved or not."149

4. Liaison Committee on Medical Education

The CMEH's policy of inspecting medical schools and classifying the quality (A, B, or C, with A for best), along with the Flexner Report, led to the reduction in medical schools from around 160 to about half that number within just a few years.¹⁵⁰ By 1929, the AMA-classification system had been dropped in favor of listing schools as "approved" jointly by the CMEH and the AAMC.¹⁵¹

In February 1942, shortly after the United States' entry into World War II, the AMA Board of Trustees, the CMEH, and the Executive Council of the AAMC met to develop a plan to avoid duplication of services in the emergency situation.¹⁵² It was agreed that the entities would form a joint board, which became known as Liaison Committee on Medical Education ("LCME"), to inspect medical schools.¹⁵³ The LCME had equal representation from the CMEH and the AAMC Executive Council and, over time, representation expanded to include a non-voting student member and public members.¹⁵⁴

The LCME is "the nationally recognized accrediting authority for medical education programs leading to the M.D. degree in U.S. and Canadian medical schools."¹⁵⁵

5. Federation of State Medical Boards

In 1902, the Confederation of Reciprocity was founded to help physicians more easily obtain licenses in different states through "reciprocity" and, in 1912, the Confederation later merged with the NCSMELB to form the present-day Federation of State Medical Boards ("FSMB").¹⁵⁶ However, varying standards led the reciprocity program to be not particularly effective.¹⁵⁷ In the early 1900s, a medical school graduate could still practice in a variety of states without passing a state

^{149.} Id. at 86.

^{150.} Norwood, supra note 35, at 469.

^{151.} Id.

^{152.} Kassebaum, *supra* note 145, at 85. It probably helped collegial interactions that both the AMA and the AAMC were headquartered in Chicago.

^{153.} Id. at 86.

^{154.} Id.

^{155.} Id. at 85; Liaison Committee on Medical Education, and http://www.lcme.org/ (last visited March 14, 2010).

^{156.} SHRYOCK, supra note 2, at 58-59.

^{157.} Womack, supra note 8, at 818.

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licensing examination.158

The FSMB is a voluntary, nonprofit agency composed of the licensing boards in the 50 states and other associated authorities.¹⁵⁹ Advancement and development of uniform national licensure has been an FSMB priority.¹⁶⁰ The FSMB has also considered the concept of licensure by specialty rather than through granting a full unrestricted license.¹⁶¹

6. National Board of Medical Examiners and United States Medical Licensing Examination

In the early 1900s, editorials in the Journal of the American Medical Association were calling for a national board of medical examiners, and the AMA House of Delegates referred the national-board concept to the CMEH for evaluation.¹⁶² Dr. Walter L. Bierring served as secretary and editor for the FSMB for 50 years after its founding in 1912.¹⁶³ In 1915, Dr. Bierring was one of the founding members of the National Board of Medical Examiners ("NBME"),¹⁶⁴ and he also filled the unexpired board term of the AMA president who died suddenly.¹⁶⁵ The NBME is a voluntary and unofficial agency that sought "to establish a standard of examinations and certification of graduates in medicine for the whole United States and its territories through which, by cooperation of the state and territorial boards of medical examiners, its licentiates may be recognized for licensure to practice medicine."¹⁶⁶ The NBME was formed and developed due to the support of "federal" agencies (surgeons-general, government hospitals, and so forth) and the Carnegie Foundation's

^{158.} Id. at 817.

^{159.} Henry G. Cramblett, National Policies for Medical Licensure through the Federation of State Medical Boards, 303 N. ENG. J. MED. 1360, 1360 (1980).

^{160.} Id. at 1362.

^{161.} Id.

^{162.} Womack, supra note 8, at 819-820..

^{163.} John P. Hubbard, Walter L. Bierring, M.D., and the National Board of Medical Examiners, 83 THE JOURNAL-LANCET 475, 475 (1963).

^{164.} EVALUATION OF HEALTH PROFESSIONALS, NATIONAL BOARD OF MEDICAL EXAMINERS, 2 (2007), http://www.nbme.org/PDF/AboutNBME.pdf. NBME focuses on developing health professional examinations:

NBME Mission: To protect the health of the public through state of the art assessment of health professionals. While centered on the assessment of physicians, this mission encompasses the spectrum of health professionals along the continuum of education, training and practice that includes research in evaluation as well as development of assessment instruments.

Id.

^{165.} Hubbard, supra note 163, at 475.

^{166.} Id. (emphasis added) (quotes in the original).

financial support.¹⁶⁷

In 1919, Dr. Bierring and another NBME board member visited England, Scotland, and France to study and observe qualifying medical examinations.¹⁶⁸ In 1920, a visiting British-French commission was so impressed with American medical education standards that the medical boards of Scotland and England admitted Diplomates of the NBME (that is, NBME certificate holders) to their final examination, and the NBME reciprocated.¹⁶⁹ The American medical education system gained prestige through NBME recognition by the medical Boards of Scotland and England in the state licensing boards.¹⁷⁰

According to Dr. Bierring, "The national board was established to develop a comprehensive test that would be a criterion of medical training in this country, and it will continue to be the last testimonial for evaluating medical education in America as it evolves to meet the demands of medical service."¹⁷¹ However, the NBME has expressed no interest in being responsible for national or federal medical licensure, stating:

Sometimes, it is suggested with varying degrees of apprehension that the nationwide recognition of the National Board certificate may have as the next step a national or federal authority for the licensing of physicians. I wish to assure you unequivocally and emphatically that there is no interest or intent among the officers, the members, or the staff of the National Board to take any step in this direction. Very frankly, we want no part of the legal responsibility of licensing physicians, which is a duty and function we believe belongs to the states.¹⁷²

The NBME held its first examination in Washington, D.C. in 1916: 32 candidates applied, 16 qualified, ten appeared, and five passed.¹⁷³ By 1922, the NBME replaced its single-setting oral examination and case

^{167.} Womack, *supra* note 8, at 821.

^{168.} Hubbard, supra note 163, at 476.

^{169.} Id. at 477.

^{170.} Womack, supra note 8, at 821.

^{171.} Hubbard, supra note 163, at 478 (emphasis added) (quotations in the original).

^{172.} John P. Hubbard, *The Present Position of the National Board of Medical Examiners*, 192 J. AM. MED. ASS'N 824, 825 (1965). John P. Hubbard Award, National Board of Medical Examiners, http://www.nbme.org/about/Hubbard/2009-hubbard-recipient.html (last visited March 14, 2010). Dr. Hubbard was a driving force of the NBME:

The NBME established the John P. Hubbard Award in 1983 in special tribute to the late John P. Hubbard, MD. Honoring Dr. Hubbard as a principal, guiding force of the NBME, this award acknowledges his creative and inspired leadership of the organization during his 25-year tenure as its chief executive.

Id.

^{173.} Womack, supra note 8, at 820.

demonstrations with the current three-step testing format.¹⁷⁴ Part 1 was a written basic science examination, part 2 was a written clinical examination covering material from the junior and senior years in medical school, and part 3 was a practical clinical laboratory examination given at the bedside.¹⁷⁵ Part 1 of the examination had to be passed before taking part 2, and part 2 of the examination had to be passed prior to taking part 3.¹⁷⁶ In 1951 and 1952, objective examinations became part of the NBME tests, replacing essay portions.¹⁷⁷ Medical schools integrated the examination material of parts 1 and 2 into the medical school curriculum, so that the NBME was creating medical school standards.¹⁷⁸

Initially, state boards feared encroachment upon their medical licensure rights.¹⁷⁹ However, over time, state medical licensing boards have found the NBME mission complementary to their own work and began accepting the NBME certificate.¹⁸⁰ By 1940, all but five states had accepted the NBME certification examination as their licensing examinations, although nine other states required supplementary examinations or arrangements.¹⁸¹ By the 1960s, most American medicalschool graduates were licensed by the state medical licensing boards through "endorsement" of the NBME certificate.¹⁸² As one member of the Massachusetts Board of Registration in Medicine noted: "It would seem that further examination for this student [who possesses the National Board of Medical Examiners certificate] is superfluous and that he should be accepted for licensure in all 50 states of the Union. He should be able to move freely from one state to another without impediment."¹⁸³ The "NBME stands at the interface between the educational and licensing structures," but "assumes no responsibility for medical education or for licensure."184

^{174.} SHRYOCK, supra note 2, at 81.

^{175.} Womack, supra note 8, at 821.

^{176.} Id.

^{177.} Id. at 822.

^{178.} Id. at 821.

^{179.} *Id*.

^{180.} Id.

^{181.} SHRYOCK, supra note 2, at 82.

^{182.} Vasilios G. Letsou, Problems of Medical Licensure, 210 J. AM. MED. ASS'N 1764 (1969); Fordham, supra note 7supra note 7, at 832.

^{183.} Letsou, supra note 182, at 1764.

^{184.} William D. Holden and Edithe J. Levitt, Medical Education, Licensure, and the National Board of Medical Examiners, 303 N. ENG. J. MED. 1357, 1357 (1980).

7. Educational Council for Foreign Medical Graduates

After World War II, foreign doctors were attracted to the United States in large numbers, but the quality of their training was unknown.¹⁸⁵ A joint committee of the FSMB, CMEH, AAMC, and the American Hospital Association ("AHA") created the Educational Council for Foreign Medical Graduates ("ECFMG"), and the NBME created an examination for foreign medical graduates.¹⁸⁶ The ECFMG was first given in 1958; otherwise, two physician testing standards would exist. Also recognized was the fact that, were the National Board not to honor this request, it would be necessary for the ECFMG to seek other sources for its examinations, and this would lead the way to different standards of performance required.¹⁸⁷

8. United States Medical Licensing Examination

In 1990, the FSMB and the NBME established the United States Medical Licensing Examination ("USMLE").¹⁸⁸ The USMLE, which replaced the NBME and ECFMG certification examinations, provides an assessment of United States and international medical school students or graduates seeking initial medical licensure by United States licensing jurisdictions.¹⁸⁹

Like the NBME certification, in place since 1922, the USMLE is "a single examination program with three steps."¹⁹⁰ Over time, the post-internship examination (step 3) evolved from a clinical examination into a written examination, but the clinical examination was recently revived as an additional requirement in step 2.¹⁹¹

^{190.} Id.

191. Step	2,	United	States	Medical	Licensing	Examination,
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^{185.} SHRYOCK, *supra* note 2, at 96. A detailed discussion of foreign medical school graduates is outside the scope of this paper. However, the quality of foreign medical training continues to be a major concern, and state medical licensing boards may not have the resources necessary to perform fact finding regarding foreign medical schools. Federal medical licensing of foreign medical school graduates could be quite beneficial to society. *See* Hans Karle, *Global Standards and Accreditation in Medical Education: A View from the WFME*, 81 ACADEMIC MED. S43 (2006). World Health Organization and World Federation for Medical Education (worldwide umbrella organization for regional and national medical education organizations) are working together to address globalization issues that include doctors and medical education providers crossing borders. *Id.* Proliferation of "new medical schools of dubious quality are proliferating" is a major concern. *Id. See* also David A. Johnson, *Establishing a National Clearinghouse on International Medical Education Programs: An Idea Whose Time Has Finally Come*, 305 ACADEMIC MED, 305 (2008). One quarter of United States physician workforce is foreign medical graduates and medical licensing boards need useful information about foreign medical schools but may lack the resources to conduct their own independent evaluations. *Id.*

^{186.} Womack, *supra* note 8, at 822-823.

^{187.} Id. at 823.

^{188.} Am. Med. Ass'n, State Medical Licensure Requirements and Statistics, 2 (2008).

^{189.} *Id*.

Today, a medical student is typically not allowed to start the fourth year of medical school until he or she has passed step 1 of the USMLE, the written exam on preclinical studies.¹⁹² The addition of the step 2 clinical-skills examination in 2004 as part of the medical licensure examination requirement led to curricular modifications at United States medical schools.¹⁹³ Through these requirements in the USMLE, the NBME is defining the medical school curriculum in this country, and thus education and licensing; it is not just at the interface between education and licensing.

9. Accreditation Council for Graduate Medical Education

In 1914, the CMEH published the list of approved hospital intern training programs.¹⁹⁴ The American Board of Medical Specialties ("ABMS"), comprising medical specialty Member Boards, was established in 1933 to oversee United States physician specialist certification.¹⁹⁵ In the 1950s, Residency Review Committees ("RRC") began forming to evaluate specialty residency training.¹⁹⁶ In 1965, the Council on Medical Specialty Societies ("CMSS") was created for the medical specialties.¹⁹⁷ The Coordinating Council on Medical Education ("CCME") formed in 1972 by five member organizations (AMA, ABMS, AHA, AAMC, and CMSS) to coordinate and approve medical education through the Liaison Committee for Graduate Medical Education ("LCGME") that reviewed the existing In 1981, the LCGME was reorganized and renamed the **RRCs**.¹⁹⁸ Accreditation Council for Graduate Medical Education ("ACGME"), and by 2000 the ACGME was separately incorporated.¹⁹⁹ The ACGME is responsible for the accreditation of United States' "post-MD medical training programs."200

http://www.usmle.org/Examinations/step2/step2.html (last visited March 14, 2010).

^{192.} FOURTH YEAR SCHEDULE & GUIDELINES 2009-2010, BOSTON UNIVERSITY MEDICAL CAMPUS, (2009), http://www.bumc.bu.edu/busm-reg/files/2009/02/class2010fourthyearguidelines1.pdf.

^{193.} Steven A. Wartman & John H. Littlefield, *Changes in the US Medical Licensure Examination and Impact on US Medical Schools*, 293 J. AM. MED. ASS'N 424, 425 (2005).

^{194.} Am. Med. Ass'n, Illustrated Highlights, http://www.ama-assn.org/ama/pub/about-ama/our-history/illustrated-highlights/1900-1939.shtml (last visited March 20, 2010).

^{195.} Am. Bd. Med. Specialties, Who We Are and What We Do, http://www.abms.org/About_ABMS/who we_are.aspx (last visited March 20, 2010).

^{196.} Accreditation Council for Graduate Med. Educ., *History of Medical Education Accreditation*, at 3, available at http://www.acgme.org/acWebsite/GME_info/historyGME.pdf (last visited March 20, 2010); Accreditation Council for Graduate Med. Educ., Residency Review Committees, http://www.acgme.org/acWebsite/navPages/nav_comRRC.asp (last visited March 20, 2010).

^{197.} History of Med. Educ. Accreditation, supra note 196, at 3.

^{198.} Id.

^{199.} Id. at 3-4.

^{200.} Accreditation Council for Graduate Med. Educ., http://www.acgme.org/acWebsite/home/home.asp

The current United States medical school training leads to a medical school graduate who is prepared to practice in any state or territory in the United States, and the medical school graduate must currently do so to practice medicine.

III. STATE MEDICAL LICENSURE IGNORES THE PRESENT NATURE OF MEDICAL PRACTICE

Few people would dispute that the healthcare industry has seen tremendous technological and other advances in the recent past. With those technological advances come changes to the practice of medicine, including an increase in patient and physician interstate travel as well as advents such as telemedicine and cybersurgery. As one physician described:

When state-based medical licensure was established more than a century ago . . . [m]ost physicians were general practitioners, and society was not very mobile. The licensure system has changed very little over the years, except for establishment of a uniform assessment for licensure (the USMLE . . .), yet society has changed greatly. We now have an extremely mobile society, with technology that allows a radiologist in India to read radiographs in the United States by teleradiology. State barriers have been broken down by technology that can bring a doctor and patient together electronically. It is not unusual for a physician to have several locations for practice throughout his or her career, and to hold licensure in multiple states. . ..²⁰¹

Indeed, in 2008, 60.4% of the licenses issued to physicians by state medical boards were additional licenses, meaning that the physician already held a license in another state.²⁰²

The use of a state-by-state licensure system creates several unnecessary complications, including the arbitrary and costly burdens it puts on physicians to seek and maintain licensure and research applicable licensure provisions.²⁰³ Consider the following scenarios as illustrations of how state medical licensure overcomplicates the practice of medicine for doctors who work in this greatly changed, extremely mobile society, who

⁽last visited March 20, 2010).

^{201.} James N. Thompson, *The Future of Medical Licensure in the United States*, 81 ACADEMIC MEDICINE S36, S37 (2006 Supp.).

^{202.} AM. MED. ASS'N, *State Medical Licensure Requirements and Statistics*, 84 (2010). This is consistent with prior years, as well. In prior years, the percentage of total licenses issued that were not initial or first licenses included 60.5% (2007), 60.7% (2006), 59.5% (2005), and 59.2% (2004). Id. 203. See infra notes 204.345 and secondary ing text.

^{203.} See infra notes 204-345 and accompanying text.

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travel interstate, who treat patients from other states, or who participate in such activities as telemedicine.²⁰⁴

A. PHYSICIAN SCENARIOS²⁰⁵

In the following scenarios, imagine that a particular medical-school graduate, Dr. Krista Johnson, is a United States citizen who graduated from a Liaison Committee on Medical Education-accredited ("LCME") United States medical school²⁰⁶ and completed an American College of Graduate Medical Education-accredited ("ACGME") United States residency.²⁰⁷ She (and her two classmates, also discussed below) successfully passed the United States Medical Licensing Examination ("USMLE"), which is "a single examination with three steps."²⁰⁸ The current state medical licensing process begins after a licensing candidate successfully passes Step 1, Step 2, and Step 3 of the USMLE, which Dr. Johnson and her classmates do in each of the scenarios presented. Many medical students take Step 1 towards the end of the second year in medical school, Step 2 towards the end of the fourth year of medical school, and Step 3 towards the end of internship year.²⁰⁹

This discussion assumes that the current medical-licensing

^{204.} See infra notes 205-345 and accompanying text.

^{205.} All the "physicians" described in these scenarios are fictional, and any similarity to any actual person is unintentional.

^{206. &}quot;The Liaison Committee on Medical Education . . . is the nationally recognized accrediting authority for medical education programs leading to the M.D. degree in U.S. and Canadian medical schools. The LCME is sponsored by the Association of American Medical Colleges and the American Medical Association." Liaison Comm. on Med. Educ., http://www.lcme.org (last visited Jan. 14, 2010).

^{207. &}quot;The Accreditation Council for Graduate Medical Education (ACGME) is responsible for the Accreditation of post-MD medical training programs within the United States. Accreditation is accomplished through a peer review process and is based upon established standards and guidelines." Accreditation Council for Graduate Med. Educ., http://www.acgme.org/acWebsite/home/home.asp (last visited Jan. 15, 2010).

^{208.} Am. Med. Ass'n, State Medical Licensure Requirements and Statistics, 2 (2010). The AMA has explained:

In 1990, the Federation of State Medical Boards (FSMB) and the National Board of Medical Examiners (NBME) established the United States Medical Licensing Examination (USMLE), a single examination for assessment of US and international medical school students or graduates seeking initial licensure by US licensing jurisdictions. The USMLE replaced that Federal Licensing Examination (FLEX) and the certification of the NBME, as well as the Foreign Medical Graduate Examination in the Medical Sciences (FMGEMS), which was formerly used by the Educational Commission for Foreign Medical Graduates (ECFMG) for certification purposes.

Id.

^{209.} Mary Shutz & Susan Kies, Materials Employed by Medical Students Preparing for Subject Examinations: Supporting Collection Development, 96(2) J. MED LIBR. ASS'N (2008). (need components for Bluebook citation, volume, journal name, starting page, page cited; U.S. Med. Licensing Examination, Bulletin of Information, 4 (2010); AM. MED. ASS'N, State Medical Licensure Requirements and Statistics, 2-10 (2010).

requirements will be applicable over the course of the three doctors' careers.²¹⁰ In addition, this discussion makes the rather unrealistic assumption that throughout the years, all three doctors' records in the National Practitioner Data Bank remain unblemished.

Traditional Medical Practice. Dr. Johnson has just finished her residency training, and she will be moving to Omaha, Nebraska, to start her medical practice. Her patients will come primarily from Nebraska and Iowa. For instance, Dr. Johnson will see many patients from rural Nebraska and Iowa communities near Omaha as well as from some of the larger nearby Nebraska and Iowa communities, including Council Bluffs, Iowa, which is less than five miles from downtown Omaha.²¹¹

For Nebraska medical licensure in "medicine and surgery,"²¹² Dr. Johnson needs to pass USMLE Step 1 within 4 attempts, Step 2 within 4 attempts, and Steps 1, 2, and 3 within a ten-year period.²¹³ Dr. Johnson successfully passed Steps 1, 2, and 3 after her second year of medical school, her fourth year of medical school, and her internship, respectively. In order to apply successfully for her Nebraska license "by examination" (rather than as a foreign medical graduate or by reciprocity), Dr. Johnson must satisfy the following criteria: (A) graduation from an accredited school or college of medicine; (B) successful completion of one year of approved graduate medical education; (C) successful passing of the USMLE, as described earlier; and, (D) satisfy one of the following five options within three years prior to her application: (1) have been in active medical practice in another state, territory, the District of Columbia, or Canada for at least one year, (2) have had at least one year of approved graduate medical education, (3) have completed at least 75 hours of "Category 1" continuing medical education ("CME") approved by the Accreditation Council for Continuing Medical Education ("ACCME"), (4)

^{210.} AM. MED. ASS'N, *State Medical Licensure Requirements and Statistics*, 2-10 (USMLE Steps 1-3), 11-15 (Endorsement Policies for Physicians Holding an Initial License), 19-21 (Policies About the Special Purpose Examination), 39-41 (Accredited Subspecialties and Nonaccredited Fellowships that Satisfy Graduate Medical Education Requirements for Licensure), 42-44 (Licensure Requirement Exemptions for Eminent Physicians and Medical School Faculty), 45-48 (Teaching (Visiting Professor) Licenses), 49-52 (Licensure and Reregistration Fees, Intervals, and Requirements), 53-56 (Continuing Medical Education for Licensure Reregistration), 64-69 (Noneducational Temporary or Limited Licenses, Permits, Certificates, and Registration), 70-76 (Physician Reentry), 77-79 (Regulations on the Practice of Telemedicine and Out-of-state Consulting Physicians), 118-119 (Licensure in the United States Armed Forces) (2010).

^{211.} Map Quest, http://www.mapquest.com/maps?1c=Omaha&1s=NE&1y=US&11=41.258598&1g=-95.9375&1v=

CITY&2c=Council+Bluffs&2s=IA&2y=US&2l=41.261902&2g=-95.860802&2v=CITY (last visited Jan. 14, 2010).

^{212.} See NEB. REV. STAT. § 38-2026.

^{213. 172} NEB. ADMIN. CODE § 88-001; AM. MED. ASS'N, State Medical Licensure Requirements and Statistics, 5 (2010).

have completed a refresher course²¹⁴ in medicine and surgery approved by the Nebraska Board of Medicine and Surgery, or (5) have completed the special purposes examination²¹⁵ approved by the Nebraska Board of Medicine and Surgery.²¹⁶ Dr. Johnson will also have to show she is at least 19 years old, show she has good moral character, and submit an application and other documentation.²¹⁷

Dr. Johnson's initial licensing fee will be \$300²¹⁸ and, at least presently, she will renew every two years for \$77.²¹⁹ In order to maintain her license, Dr. Johnson will have to complete continuing medical education ("CME"), attest to the Nebraska Board of Medicine and Surgery every two years of her compliance with the CME requirements, and maintain documentation demonstrating her compliance.²²⁰ Dr. Johnson will have to complete 50 hours of CME every two years or obtain the AMA's "Physician's Recognition Award"²²¹ to satisfy this requirement.²²²

Telemedicine. In addition to its physical practice in Omaha, Dr. Johnson's practice group has telemedicine arrangements with rural healthcare facilities in Nebraska, South Dakota, North Dakota, Kansas, and Minnesota. Dr. Johnson's telemedicine patients will always be located in these remote facilities when she interacts with them; they will

221. AM. MED. ASS'N, THE PHYSICIAN'S RECOGNITION AWARD AND CREDIT SYSTEM: INFORMATION FOR ACCREDITED PROVIDERS AND PHYSICIANS, 1 (2006 rev.), available at http://www.ama-assn.org/ama1/pub/upload/mm/455/pra2006.pdf. The AMA describes this award:

The American Medical Association (AMA) Physician's Recognition Award (PRA) has recognized physician participation in continuing medical education (CME) for more than 35 years. Established in 1968, the AMA PRA certificate and the related AMA PRA credit system recognize physicians who, by participating in CME activities, have demonstrated their commitment to staying current with advances in medicine. AMA PRA credit offers a system to measure and track physician participation in certified CME activities. AMA PRA credit is recognized and accepted by hospital credentialing bodies, state medical licensure boards and medical specialty certifying boards. When physicians have accumulated enough AMA PRA Category 1 Credit, they can then apply for an AMA PRA certificate. The AMA uniquely and exclusively awards the AMA PRA certificate to physicians who apply for it. AMA PRA credit may be awarded by accredited CME providers to physicians who apply for it.

Id.

222. 172 NEB. ADMIN. CODE § 88-016.01.

^{214.} NEB. REV. STAT. § 38-2016.

^{215.} See 172 NEB. ADMIN. CODE § 88-001 (defining as, "[T]he examination made available by the Federation of State Medical Boards of the United States, Inc.").

^{216. 172} NEB. ADMIN. CODE § 88-003.01.

^{217. 172} NEB. ADMIN. CODE § 88-003.01.

^{218.} Neb. Dep't Health & Human Servs., Physician and Surgeon page, http://www.hhs.state.ne.us/crl/medical/medsur/physur/physur.htm (last visited Jan. 15, 2010). The Nebraska Department of Health & Human Services has not updated its regulations to reflect the fee change from \$200 to \$300, effective August 30, 2008. *Id. See* 172 NEB. ADMIN. CODE § 88-015.01.

^{219. 172} NEB. ADMIN. CODE § 88-015.07.

^{220. 172} NEB. ADMIN. CODE § 88-016.01.

not travel to visit her Omaha office, nor will Dr. Johnson travel to visit them.

The American Telemedicine Association defines telemedicine as follows:

Telemedicine is the use of medical information exchanged from one site to another via electronic communications to improve patients' health status. Closely associated with telemedicine is the term "telehealth," which is often used to encompass a broader definition of remote healthcare that does not always involve clinical services. Videoconferencing, transmission of still images, e-health including patient portals, remote monitoring of vital signs, continuing medical education and nursing call centers are all considered part of telemedicine and telehealth.²²³

Transfer of radiology and pathology images, as well as video consultations between doctors and patients, are covered by this definition.224 At least 36 states have adopted or are studying potential for telemedicine-related laws.225 The nature and type of telemedicine legislation or regulation, however, varies greatly from state to state.226 While some states have specific telemedicine license or permit provisions,227 other states only refer to telemedicine in unrelated manners. For example, South

^{223.} American Telemedicine Association, http://www.americantelemed.org/i4a/pages/index.cfm? pageid =3333 (last visited Jan. 14, 2010).

^{224.} AM. MED. ASS'N, State Medical Licensure Requirements and Statistics, 77 (2010).

^{225.} See ARIZ. REV. STAT. ANN. §§ 36-3601 to -3603; ARK. CODE ANN. §§ 10-3-1701 to -1707; CAL. BUS. & PROF. CODE § 2028.5; COLO. REV. STAT. §§ 10-16-102, -123, -221, -704; FL. STAT. § 364.0135; GA. CODE ANN. §§ 31-7-94.1, 31-11-113; HAW. REV. STAT. § 431:10A-116.3; IDAHO CODE ANN. § 67-5745D; 20 ILL. COMP. STAT. 2305/8.3, 2310-2310-306, 30 ILL. COMP. STAT. 775/15, 225 ILL. COMP. STAT. 60./49.5, 320 ILL. COMP. STAT. 42/20; IND. CODE § 16-41-41-9; IOWA CODE §§ 8D.13, 135.154-.165; KAN. STAT. ANN. § 66-2001; KY. REV. STAT. ANN. § 194A.125; LA. REV. STAT. ANN. §§ 37:1262, 1271, 1276.1; LA. ADMIN. CODE tit. 46, §§ 408, 7501-7521; ME. REV. STAT. ANN. tit. 24-A, § 4316; MD. CODE ANN., FAM. LAW § 5-712, HEALTH-GEN. § 19-2109; MICH. COMP. LAWS § 18.1695; MINN. STAT. § 147.032; MISS. CODE ANN. §§ 41-3-15, 41-29-137, 73-25-34; MO. REV. STAT. §§ 208.975, .978; MONT. CODE ANN. §§ 37-3-342 to -349; MONT. ADMIN. R. 24.156.801-.811; NEB. REV. STAT. § 71-4728.04; N.H. REV. STAT. ANN. §§ 415-J:1 to :3; N.M. STAT. §§ 61-6-11.1, -19, -20; N.Y. PUB. HEALTH LAW § 2807-v; N.C. GEN. STAT. § 122C-263; Ohio Rev. Code Ann. §§ 4731.294-.296; Okla. Stat. tit. 36, §§ 6801, 6804, tit. 59, §§ 493.5, 698.2-.11, tit 63, §§ 1-2702-2703; S.C. CODE ANN. § 40-69-20; TENN. CODE. ANN. § 63-6-209; TENN. COMP. R. & REGS. 0880-02-.16; TEX. OCC. CODE ANN. § 111.001-.004, 151.056, 153.004; 22 TEX. ADMIN. CODE § 172.12; UTAH CODE ANN. § 26-18-13; UTAH ADMIN. CODE R. 432-100-32; VA. CODE ANN. § 2.2-225.1; WASH. REV. CODE § 74.09.658; W. VA. CODE § 30-3-13; WYO. STAT. ANN. §§ 9-2-117, 33-26-102, 33-26-202.

^{226.} See supra note ____ and accompanying text. (list of statutes)

^{227.} LA. ADMIN. CODE tit. 46, §§ 408, 7501-7521; MINN. STAT. § 147.032; MISS. CODE ANN. §§ 41-3-15, 41-29-137, 73-25-34; MONT. ADMIN. R. 24.156.801-.811; N.M. STAT. §§ 61-6-11.1, -19, -20; OHIO REV. CODE ANN. §§ 4731.294-.296; TENN. CODE. ANN. § 63-6-209; TENN. COMP. R. & REGS. 0880-02-.16; TEX. OCC. CODE ANN. § 111.001-.004, 151.056, 153.004; 22 TEX. ADMIN. CODE § 172.12; W. VA. CODE § 30-3-13.

Carolina's legislation merely defines "telemedicine" as part of its veterinary-medicine legislation.228

To review, Dr. Johnson will be treating patients located in Nebraska, South Dakota, North Dakota, Kansas, and Minnesota as a part of her telemedicine practice. If she were not already licensed in Nebraska, she would have to obtain a Nebraska medical/surgical license unless she were licensed in another state and (1) she was called through an electronic medium by a Nebraska-licensed physician to consult or (2) she ordered diagnostic or therapeutic services from another state on an irregular basis.²²⁹

South Dakota law provides that a nonresident physician is "engaged in the practice of medicine" if he or she provides "diagnostic treatment services through electronic means to a patient located in [South Dakota] under a contract" with various organizations, including healthcare providers, clinics, health maintenance organizations ("HMO"), preferredprovider organizations ("PPO"), or other healthcare facilities.²³⁰ If a physician is licensed in another state or by a national board, he or she is not considered to be "practicing medicine" in South Dakota if he or she is providing one-time consultation for a period of not more than 24 hours, amongst other activities not relevant to this discussion.²³¹ Because of Dr. Johnson's practice group's telemedicine arrangements, Dr. Johnson will almost certainly be "practicing medicine" in South Dakota under the relevant statutes; she will be providing more than one-time consultations and her practice group is under contract with South Dakota healthcare As a result, Dr. Johnson's telemedicine practice in South providers. Dakota is considered the unauthorized practice of medicine, a misdemeanor, unless she obtains a South Dakota physician's license.²³²

Under South Dakota law, any crime involving the practice of medicine, such as a unauthorized telemedicine practice, would subject Dr. Johnson to refusal of a new South Dakota medical license, certificate, or permit or subject an existing South Dakota medical license to cancellation, revocation, suspension, or limitation.²³³ Therefore, it is imperative that Dr. Johnson obtain a South Dakota medical license in order to practice

^{228.} S.C. CODE ANN. § 40-69-20.

^{229.} NEB. REV. STAT. § 38-2025(6), (7); AM. MED. ASS'N, State Medical Licensure Requirements and Statistics, 79 (2010).

^{230.} S.D. CODIFIED LAWS § 36-4-41.

^{231.} S.D. CODIFIED LAWS § 36-4-39; AM. MED. ASS'N, State Medical Licensure Requirements and Statistics, 79 (2010).

^{232.} S.D. CODIFIED LAWS § 36-4-8.

^{233.} S.D. CODIFIED LAWS §§ 36-4-28, -29.

telemedicine in South Dakota lawfully.

Fortunately, South Dakota has a reciprocity statute,²³⁴ meaning that she will not have to file a general application for new licensing²³⁵ like she did when she began her practice in Nebraska. Dr. Johnson will have to pay \$200 for the initial South Dakota license as well as \$200 each year for renewal.²³⁶ South Dakota does not currently require CME.²³⁷

North Dakota's definitions for the practice and non-practice of medicine are very similar. Like someone in South Dakota, an individual in North Dakota is not engaged in the practice of medicine if he or she holds a permanent, unrestricted license in another state or in Canada and provides one-time consultation for a period of not more than 24 hours, amongst other exempted activities.²³⁸ The unauthorized practice of medicine in North Dakota carries similar penalties to those in South Dakota²³⁹ and is such that Dr. Johnson would be likely to seek a North Dakota medical license.

For her North Dakota license, Dr. Johnson will have to fill out a full application and demonstrate that she meets the licensing requirements, including that she can show successful completion of a medical licensure examination; physical, mental, and professional capability for the practice of medicine; a history free from a finding by any state medical licensure board or court of competent jurisdiction that would constitute grounds for disciplinary action under North Dakota law; evidence of medical education and postgraduate training; and other requirements, such as a criminal background check and fingerprinting.²⁴⁰ Dr. Johnson will pay the \$247.25 initial licensing fee and \$155 annual renewal fee.²⁴¹ She will complete a minimum of sixty hours of approved CME every three years.²⁴²

^{234.} S.D. CODIFIED LAWS §§ 36-4-19, -19.1; S.D. ADMIN. R. 20:47:03:04. Dr. Johnson will have to establish similar requirements as for her initial Nebraska license, and she will also have to show that her existing license has never been subject to a proceeding for cancellation, suspension, or revocation, that she has never been refused a certificate, license, authority, or commission to practice medicine, and that there are no prosecutions pending against her in any state, federal, or Canadian court involving a South Dakota-defined felony or crime of moral turpitude. S.D. CODIFIED LAWS § 36-4-19.1.

^{235.} S.D. Admin. R. 20:47:03:03.

^{236.} S.D. Admin. R. 20:47:06:01.

^{237.} S.D. Bd. of Med. & Osteopathic Examiners, http://www.sdbmoe.gov/FAQ_main.aspx#b4 (last visited Jan. 16, 2010); AM. MED. ASS'N, State Medical Licensure Requirements and Statistics, 55 (2010).

^{238.} N.D. CENT. CODE § 43-17-02.3.

^{239.} N.D. CENT. CODE §§ 43-17-31, -34.

^{240.} N.D. CENT. CODE § 43-17-18; N.D. Bd. of Med. Examiners, http://www.ndbomex.com/MD_LIc.htm (last visited Jan. 16, 2010).

^{241.} N.D. Bd. of Med. Examiners, http://www.ndbomex.com/MD_Llc.htm (last visited Jan. 16, 2010) (providing for \$247.25 initial licensing fee); http://www.ndbomex.com/physicianrenewal.html (last visited Jan. 16, 2010) (providing for \$155 annual online renewal fee or \$200 annual paper renewal).

^{242.} N.D. ADMIN. CODE 50-04-01-01.

In terms of Dr. Johnson's Kansas patients, under Kansas law, a physician is engaged in the "practice of medicine and surgery," such that he or she needs a Kansas medical license, when performing any system, treatment, operation, diagnosis, prescription, or practice for the ascertainment, cure, relief, palliation, adjustment, or correction of any human disease, ailment, deformity, or injury.²⁴³ However, physicians are not engaged in the practice of medicine (1) when they perform "professional services under the supervision or by order of or referral from a practitioner who is licensed under [the act]," (2) when they are "incidentally called into [Kansas] [from another state] in consultation with practitioners licensed in [Kansas]," and (3) when they "do not open an office or maintain or appoint a place to regularly meet patients or to receive calls within [Kansas], but who order services which are performed in [Kansas]," amongst other reasons.²⁴⁴ So long as Dr. Johnson does not open an office, regularly meet patients, or receive calls "in Kansas," she will not be considered to be practicing medicine even when she orders services that are performed in Kansas. As a result, if Dr. Johnson's telemedicine practice continues to fall into one of those three categories, she will not need a Kansas license in order to practice telemedicine there ²⁴⁵

Minnesota is one of the few jurisdictions that have adopted telemedicine licensing or, in its case, "registration."²⁴⁶ Minnesota's telemedicine registration law means that Dr. Johnson will not have to obtain a new Minnesota license in order to practice telemedicine with Minnesota patients.²⁴⁷ Instead, she will have to complete an application to practice telemedicine, including verifications that she is licensed in the state from which she will be providing services and that she has not had a license revoked or restricted in any state.²⁴⁸ She must also provide a statement of her intention to provide telemedicine services in Minnesota, the list of states and jurisdictions in which she is licensed, and a list of any

^{243.} KAN. STAT. ANN. § 65-2802(a).

^{244.} KAN. STAT. ANN. § 65-2872. Despite this language in the statute, the American Medical Association's state-by-state survey of telemedicine regulations provides that Kansas requires full licensure "if orders for services are issued for individuals located in Kansas." AM. MED. ASS'N, *State Medical Licensure Requirements and Statistics*, 78 (2010). Because she will require a Kansas license to practice cybersurgery on Kansas patients, as described further below, she will be obtaining a license in Kansas in any event. *See infra* notes 260-64 and accompanying text.

^{245.} See supra notes 243-44 and accompanying text.

^{246.} Minn. Stat. § 147.032.

^{247.} MINN. STAT. § 147.032.

^{248.} MINN. STAT. § 147.032.

negative licensing actions ever taken against her.²⁴⁹ She will pay a \$100 application fee and a \$75 annual registration fee, including the first year.²⁵⁰ Minnesota does not require CME of telemedicine registrants.²⁵¹

Therefore, in order to participate in her practice group's telemedicine practice, Dr. Johnson will have to maintain her Nebraska license, obtain a license by reciprocity or endorsement from South Dakota and North Dakota, and complete Minnesota's telemedicine registration.²⁵² She will have to maintain all three licenses and the Minnesota registration year to year and ensure that she monitors Kansas's licensing scheme in case circumstances change and she begins "practicing medicine" under its laws.²⁵³ Unfortunately, Nebraska, South Dakota, North Dakota, and Kansas are not among the limited number of states that have created a "telemedicine" license.²⁵⁴ All this will be required even though Dr. Johnson may never leave Nebraska or physically see a patient from North Dakota, South Dakota, Kansas, or Minnesota.²⁵⁵

Cybersurgery. As part of her practice group's larger telemedicine practice, Dr. Johnson takes advantage specifically of the latest technological advances to provide remote-control surgical services, known as cybersurgery, to patients again located in Nebraska, South Dakota, North Dakota, Kansas, and Minnesota. Cybersurgery involves the use of a highly advanced remote-control surgical system, such as the Zeus or da Vinci systems²⁵⁶, to perform surgery on a patient who is physically located in another place.²⁵⁷ Commentators have described cybersurgery as "a surgical technique that allows a surgeon, using a telecommunication conduit connected to a robotic instrument, to operate on a remote patient."²⁵⁸ Dr. Johnson's patients undergoing cybersurgery, which she remotely performs as skillfully and safely as any doctor physically present

^{249.} MINN. STAT. § 147.032.

^{250.} MINN. STAT. § 147.032.

^{251.} MINN. STAT. § 147.032.

^{252.} See supra notes 223-51 and accompanying text.

^{253.} See supra notes 230-51 and accompanying text.

^{254.} Telemedicine (or "special purposes") license or practice without additional license is available in some jurisdictions, including Alabama, Guam, Hawaii, Minnesota, Nevada, New Mexico, Ohio, Tennessee, and Texas. AM. MED. ASS'N, *State Medical Licensure Requirements and Statistics*, 79 (2010). Guam has taken a pragmatic approach, the physician "[m]ust hold license in state where physician resides." *Id.*

^{255.} See supra notes 223-54 and accompanying text.

^{256.} Intuitive Surgical, http://www.intuitivesurgical.com/products/index.aspx (last visited January 23, 2010)

^{257.} See Katherine J. Herrmann, Note, *Cybersurgery: The Cutting Edge*, 32 RUTGERS COMPUTER & TECH. L.J. 297, 298-306 (describing cybersurgery and related technology).

^{258.} See, e.g., Id. at 309 (quoting Thomas R. McLean, Cybersurgery: Innovation or a Means to Close Community Hospitals and Displace Physicians?, 20 J. MARSHALL J. COMPUTER & INFO. L. 495, 495 (2002)) (defining cybersurgery).

could, never leave their rural-setting healthcare facilities.

This nascent high-technology field currently has no unique licensing system. Because cybersurgery is part of the larger "telemedicine" field, Dr. Johnson should follow the same course of conduct as with her general telemedicine practice. If she had not already obtained a new license from Kansas for the general telemedicine practice, her safest course will be also to obtain a Kansas license for patients upon whom she performs cybersurgery as a result of the language in Kansas's licensing statutes. Unlike general telemedicine, in which she is simply "order[ing] services [from another state] which are performed in [Kansas],"²⁵⁹ it is arguable that cybersurgery encompasses something more than "ordering services."

For these reasons, Dr. Johnson would be wise to seek an endorsement license in Kansas, a license for physicians who have been in active medical practice in another state, territory, the District of Columbia, or another country.²⁶⁰ Dr. Johnson will also have to show that none of her licenses have ever been limited, suspended, or revoked; that she has never been censured nor had other disciplinary action; that at least one of her licenses was granted under, and is currently subject to, standards at least equal to Kansas' standards; and that she can reasonably communicate in English.²⁶¹ She will also have to provide various other items and information, including the purpose of her Kansas license and a photograph with thumbprint.²⁶²

She will pay a \$300 initial licensing fee, plus nearly \$60 in additional charges, and an annual renewal fee of \$315.²⁶³ Dr. Johnson will complete CME on a one-year, two-year, or three-year update: "One-year update: 50 hours with a minimum of 20 hours of Category I and a maximum of 30 hours of Category II, Two-year update: 100 hours with minimum of 40 hours Category I and a maximum of 60 hours of Category II, Three-year update: 150 hours with a minimum of 60 hours Category I and a maximum of 90 hours of Category II."²⁶⁴ She will also maintain her Nebraska, South Dakota, and North Dakota licenses as well as her Minnesota telemedicine

^{259.} KAN. STAT. ANN. § 65-2872(r).

^{260.} KAN. STAT. ANN. § 65-2833.

^{261.} KAN. STAT. ANN. § 65-2833.

^{262.} KAN. ADMIN. REGS. § 100-8-2.

^{263.} KAN. ADMIN. REGS. § 100-11-1 (application fee, annual renewal fee); Kan. Bd. of Healing Arts, http://www.ksbha.org/Frequently_asked_Questions/MD%20FAQ.html (last visited Jan. 16, 2010) (additional initial licensing charges). The annual paper renewal fee is \$325. KAN. ADMIN. REGS. § 100-11-1.

^{264.} Kan. Bd. of Healing Arts, http://www.ksbha.org/Frequently_asked_Questions/MD%20FAQ.html (last visited Jan. 16, 2010).

registration, as discussed in the telemedicine discussion.²⁶⁵

Satellite. Dr. Johnson has been building her highly successful medical practice in Omaha for several years now. As a result of her current success, her connections to Iowa through her existing practice, and her perception that there is a larger market for her services, she would like to establish a satellite office in Sioux City, Iowa. Sioux City is less than 100 miles from Omaha, roughly north of it along Interstate 29.²⁶⁶ Opening this satellite office offers many attractive benefits to Dr. Johnson and her patients, including that some of her northern-Iowa and northern-Nebraska patients would not have to travel to see her and that Dr. Johnson could fend off the advances of another physician who is trying to attract patients from the Sioux City service area. She will attend this Iowa clinic two days per month and, at least initially, she will not be accepting any new patients. To start, Dr. Johnson will only be seeing the same Iowa patients that she has been seeing in Omaha. However, Sioux City is only a few minutes' drive from Nebraska and South Dakota and less than 100 miles from the Minnesota border.²⁶⁷ Therefore, if she begins taking new patients, Dr. Johnson might expect Nebraska, Iowa, South Dakota, and Minnesota residents in her Sioux City satellite office.

To practice medicine in the Iowa satellite clinic, Dr. Johnson will need to obtain a permanent, unrestricted medical license in Iowa.²⁶⁸ She will seek a license pursuant to a reciprocal agreement that will allow her to be licensed without taking a further examination.²⁶⁹ Dr. Johnson will pay the initial application fee of \$450 plus other application-related fees²⁷⁰ and will renew her license every two years by completing a renewal application and paying either the \$450 electronic renewal fee or the \$550 paper renewal fee.²⁷¹ She will need to complete 40 hours of Iowa-

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^{265.} See infra notes 223-55 and accompanying text.

^{266.} Map Quest, http://www.mapquest.com/maps?1c=Omaha&1s=NE&1y=US&11=41.258598&1g=-95.9375&1v=

CITY&2c=Sioux+City&2s=IA&2y=US&21=42.5&2g=-96.400002&2v=CITY (last visited Jan. 14, 2010). 267. Map Quest, http://www.mapquest.com/maps?1c=Sioux+City&1s=IA&1y=US&11=42.5&1g=-96.400002&1v=

CITY&2s=MN&2y=US&21=46.486992&2g=-94.0718&2v=STATE#b/maps/m:map:4:44.491988:-95.224216

^{96.400002:}city::1:::/l::Us+Highway+75:Steen:MN:56173:US:43.543899:-

^{96.213027:}address:Rock:1:::/io:1:::::f:en_US:M::/bl:/e (last visited Jan. 14, 2010).

^{268.} IOWA CODE § 147.2; IOWA ADMIN. CODE r. 653-9.2.

^{269.} IOWA CODE § 147-44; IOWA ADMIN. CODE r. 653-9.4.

^{270.} IOWA ADMIN. CODE r. 653-9.5.

^{271.} IOWA ADMIN. CODE r. 653-9.11.

approved CME every two years.²⁷² These requirements will be in addition to maintenance of her primary Nebraska license and any other licenses she may have for telemedicine reasons, as discussed above.²⁷³

Expert Testimony. After developing her practice in Omaha and Sioux City and her expertise in telemedicine and cybersurgery, some attorneys approach Dr. Johnson about working as an expert witness in medical malpractice litigation, and she decides that she would like to do so. She is willing to travel and testify anywhere in the United States.

In order to determine licensing requirements, Dr. Johnson will need to evaluate the definition of medical practice in each state in which she is called to testify as an expert. Scholars in the area have discussed whether expert testimony is considered the practice of medicine in the context of disciplining physicians for giving false or otherwise problematic testimony.²⁷⁴ For instance, one commentator reasoned, "[A]n expert witness practices medicine because expert testimony involves the application of medical judgment to a particular case."275 Another commentator opined, "The crux of the problem is that too many physicians and state regulators do not regard the provision of expert testimony as part of the practice of medicine. . . . However, there is a growing realization that . . .serving as an expert witness in a professional liability suit is in fact practicing medicine."²⁷⁶ Under these interpretations, a physician needs to be licensed in each state where he or she testifies, although "special purpose" licenses may be available for testifying out-of-state.²⁷⁷

In terms of available statutory or regulatory guidance, physicians seeking to provide expert testimony should check each state for its requirements. For instance, some states explicitly provide that providing expert testimony is not the "practice of medicine" under their physicianlicensing statutes or regulations.²⁷⁸ Other states define qualifications for expert witnesses in their medical malpractice litigation statutes or regulations.²⁷⁹ For example, some states have determined that a physician may properly serve as an expert witness so long as he or she is licensed to

^{272.} IOWA ADMIN. CODE r. 653-11.4.

^{273.} See supra notes 212-22 and accompanying text.

^{274.} Jennifer A. Turner, Going after the "Hired Guns": Is Improper Expert Witness Testimony Unprofessional Conduct or the Negligent Practice of Medicine, 33 PEPP. L. REV. 275 (2006); Russell M. Pelton, Medical Societies' Self-Policing of Unprofessional Expert Testimony, 13 ANNALS HEALTH L. 549 (2004).

^{275.} Turner, supra note 274, at 303.

^{276.} Pelton, supra note 274, at 551-52.

^{277.} Turner, supra note 274, at 306-07.

^{278.} See, e.g., IOWA ADMIN. CODE r. 653-9.2(e); UTAH CODE ANN. § 58-67-305.

^{279.} See infra note 280 and accompanying text. (next)

practice in any state or United States jurisdiction.²⁸⁰ Other states are more stringent. As an illustration, Tennessee has determined that a physician is qualified to serve as an expert witness in a medical malpractice case only if he or she is licensed in Tennessee "or a contiguous bordering state."²⁸¹ Therefore, if Dr. Johnson were called upon to testify in Tennessee, she would have to be licensed in Tennessee, Alabama, Arkansas, Georgia, Kentucky, Mississippi, Missouri, North Carolina, or Virginia.²⁸²

While many states would allow Dr. Johnson to testify with her original Nebraska license, or a license from any United States jurisdiction, she would need to be cautious in researching each jurisdiction before accepting a role as an expert in any particular case. Not only would this require researching states' licensing statutes and regulations, medical malpractice litigation statutes and regulations, and evidentiary rules, but it would also mean researching common-law principles in states without existing statutory or regulatory law. For instance, while North Carolina does not have a statute or regulation on point, its state courts have determined, "The qualifications of a medical expert are judged according to the same standards as those of expert witnesses in general: The common law does not require that the expert witness on a medical subject shall be a person duly licensed to practice medicine."283 Thus, Dr. Johnson, or any physician anticipating retention as an expert witness in medical malpractice cases, would be wise to research statutory, regulatory, and case law in each jurisdiction, a task that would daunt even proficient legal researchers.

Move. As often is the case, unforeseen circumstances have arisen in Dr. Johnson's life and, after several years in medical practice, her mother

^{280.} See, e.g., ALA. CODE § 6-5-548(b)(1) ("licensed by the appropriate regulatory board or agency of this or some other state"); LA. REV. STAT. ANN. § 9:2794D(1)(d) ("licensed to practice medicine by the Louisiana State Board of Medical Examiners . . . , is licensed to practice medicine by any other jurisdiction in the United States, or is a graduate of a medical school accredited by the American Medical Association's Liaison Committee on Medical Education "); 40 PA. CONS. STAT. § 1303.512(b)(1) ("an unrestricted physician's license to practice medicine in any state or the District of Columbia"); TEX. CIV. PRAC. & REM. CODE ANN. § 74.401(g)(1) ("licensed to practice medicine in one or more states in the United States"); W. VA. CODE § 55-7B-7(a)(4) ("a current license to practice medicine with the appropriate licensing authority of any state of the United States").

^{281.} TENN. CODE ANN. § 29-26-115(b).

^{282.} TENN. CODE ANN. § 29-26-115(b).

^{283.} Cannizzaro v. Food Lion, 680 S.E.2d 265, 269 (N.C. Ct. App. 2009) (quoting Maloney v. Wake Hosp. Sys., Inc., 262 S.E.2d 680, 683 (N.C. Ct. App. 1980)). North Carolina's physician disciplinary procedures provide that "the individual under [disciplinary] investigation may call witnesses, including medical practitioners licensed in the United States with training and experience in the same field of practice as the individual under investigation and familiar with the standard of care among members of the same health care profession in North Carolina," but it does not have a statute or regulation more specifically tied to physician licensing or medical-malpractice litigation. N.C. GEN. STAT. § 90-14.6(b).

becomes ill in Rapid City, South Dakota.²⁸⁴ She moves to Rapid City in order to care for her mother and, while doing so, she manages to establish a medical practice. While staying with and caring for her mother in Rapid City, Dr. Johnson will be able to practice medicine with the South Dakota license she obtained as part of her telemedicine practice described above. However, if Dr. Johnson had never secured that license, she would have to apply for a new South Dakota medical license through the process described above. Or, if she anticipated being in South Dakota only a short time, Dr. Johnson would be able to obtain a certificate to practice in South Dakota for a period of no longer than 60 days.²⁸⁵ If she were going to visit patients in satellite offices in Montana or Wyoming or continue her telemedicine practice in new areas, she would need to look at licensing laws in those states as well.

Unfortunately, Dr. Johnson's mother dies and, not long after, her mother-in-law also becomes ill. Because her mother-in-law lives in Moorhead, Minnesota,²⁸⁶ Dr. Johnson and her husband relocate once again in order to provide care to their loved one, who is suffering from a terminal but long-term illness. Dr. Johnson wishes to continue practicing while she and her family are living in Minnesota.

Because Dr. Johnson earlier obtained only a telemedicine registration in Minnesota, she will need to obtain a full Minnesota medical license.²⁸⁷ Minnesota allows applicants previously licensed in other states to obtain Minnesota licenses by reciprocity.²⁸⁸ However, because it has been longer than ten years since Dr. Johnson took the USMLE, she will have to take an additional examination, the Special Purpose Examination ("SPEX"),²⁸⁹ in

^{284.} Rapid City is located in the Black Hills of South Dakota in the western part of the state and near both Wyoming (less than 75 miles) and Montana (less than 100 miles). Map Quest, http://www.mapquest.com/maps?1c=Rapid+City&1s=SD&1y=US&11=44.080601&1g=-103.230598&1v=CITY&2s=WY&2y=US&21=42.965149&2g=-106.805&2v=STATE#b/maps/m:map:7:43.896:-103.666108 :::::11::::/l:::Rapid+City:SD::US:44.080601:-103.230598:city::1:::/l:::Newcastle:WY::US:43.854698:-

^{104.204399:}city:Weston+County:1:::/io:1:::::f:en_US:M::/bl:/e; http://www.mapquest.com/maps?1c=Rapid +City&1s=SD&1y=US&11=44.080601&1g=-103.230598&1v=CITY&2c=Alzada&2s=MT&2y=US&21=

^{45.023102&}amp;2g=-104.411903&2v=CITY (last visited March 18, 2010).

^{285.} S.D. Bd. of Med. & Osteopathic Examiners, http://www.sdbmoe.gov/locum_tenens.aspx (last visited Jan. 17, 2010). *Locum tenens* issues are discussed further below also. *See infra* notes 321-28 and accompanying text.

^{286.} Moorhead is located on the border between Minnesota and North Dakota, approximately 1.5 miles from Fargo, North Dakota. Map Quest, http://www.mapquest.com/maps?1c=Fargo&1s=ND&1y=US&11=46.877201&1g=-

^{96.789398&}amp;1v=CITY&2c=Moorhead&2s=MN&2y=US&2l=46.873901&2g=-96.767197&2v=CITY (last visited March 18, 2010).

^{287.} See infra notes 246-51 and accompanying text.

^{288.} MINN. STAT. § 147.03.

^{289.} SPEX is "a 1-day computer-administered examination with approximately 420 multiple-choice

order to obtain a license in Minnesota.²⁹⁰ Dr. Johnson will have to complete the application, including completion of SPEX with a score of 75 or better.²⁹¹ Her initial licensing fee will be \$200.²⁹² If she wants to maintain her new Minnesota license year to year, she will have to renew annually for a fee of \$192²⁹³ and complete 75 hours of CME during three-year cycles.²⁹⁴

Because of Minnesota's proximity to Fargo, Dr. Johnson could simply forego practicing in Minnesota to avoid the hassle involved with obtaining licensure there and decide to practice solely in North Dakota, if she had maintained her North Dakota license and if she were willing to commute to Fargo each day. If she had not obtained a North Dakota license in the first place, as described in the telemedicine section, or if she had let her North Dakota license lapse, she would have to apply or renew her license if she were practicing in North Dakota.²⁹⁵ After her mother-inlaw dies, Dr. Johnson returns to her original practice group in Omaha.

Missed Opportunity. A few years after Dr. Johnson and her family return to Omaha, an old medical-school friend offers her a great medical practice opportunity in South Carolina. Unfortunately, South Carolina has a ten-year maximum time limit for licensure by endorsement after examination.²⁹⁶ Likewise, South Carolina does not accept SPEX from other jurisdictions, meaning that neither her original USLME results nor her subsequent SPEX scores from Minnesota would allow her to obtain a South Carolina license without further examination.²⁹⁷ Dr. Johnson has been maintaining licenses for Nebraska, North Dakota, South Dakota, Kansas, and Minnesota all these years, and she decided to pass on the offer in order to avoid licensure in yet another state.

Teaching. After Dr. Johnson's children leave for college, she and her husband decide that it might be fun to visit new parts of the country, stay a few years, and move onto another new location. Because Dr. Johnson is well aware of the burdens and intricacies associated with licensing in multiple states, she decides that she will seek teaching positions at area

questions" that "assesses knowledge required of all physicians, regardless of specialty." AM. MED. ASS'N, State Medical Licensure Requirements and Statistics, 19 (2010).

^{290.} MINN. STAT. § 147.03(2)(i).

^{291.} MINN. STAT. § 147.03; MINN. R. 5600.0600.

^{292.} MINN. R. 5600.2500(A).

^{293.} MINN. R. 5600.0605, .2500(B).

^{294.} MINN. R. 5605.0100.

^{295.} See infra notes 240-42 and accompanying text.

^{296.} S.C. CODE ANN. § 40-47-32(D).

^{297.} S.C. CODE ANN. § 40-47-32; AM. MED. ASS'N, State Medical Licensure Requirements and Statistics, 21 (2010).

medical schools. To her delight, Dr. Johnson learns initially that many states will allow her to teach in their medical schools without seeking additional licensure.²⁹⁸ However, she also learns that other states have more complex regulations, including Illinois, which provides specifically for visiting professorships with a two-year maximum,²⁹⁹ and Tennessee, which provides that only educators ranking at "full professor" may be exempt from regular licensure requirements.³⁰⁰ Thus, Dr. Johnson will have to evaluate each state in which she may accept a medical professorship before proceeding.

While Dr. Johnson has had many successes and setbacks in her medical career and personal life, two of her medical-school classmates took very different paths. Consider their scenarios.

Career Military. Dr. Nathan Montgomery, a medical-school classmate of Dr. Johnson's, served in the Air Force for 25 years. He completed his family-practice residency at Offutt Air Force Base in Sarpy County, Nebraska, which is a few miles south of Omaha,³⁰¹ and continued practicing medicine at Offutt for several years after residency. During his tenure, Dr. Montgomery also served at Buckley Air Force Base in Colorado; Dover Air Force Base in Delaware; Robins Air Force Base in Georgia; Hickam Air Force Base in Hawaii; Mountain Home Air Force Base in Idaho; McConnell Air Force Base in Kansas; Barksdale Air Force Base in Louisiana; McGuire Air Force Base in New Jersey; Kirtland Air Force Base in New Mexico; Minot Air Force Base in North Dakota; Tinker Air Force Base in Oklahoma; Ellsworth Air Force Base in South Dakota; Arnold Air Force Base in Tennessee; and, Langley Air Force Base in Virginia.³⁰²

Dr. Montgomery elected to obtain his Nebraska medical license in the same fashion as Dr. Johnson did³⁰³ because he completed his familypractice residency and took his first post-residency assignment in Nebraska. However, as Dr. Montgomery moves from state to state during his medical career, he does not have to worry about obtaining new medical

Quest,

^{298.} See, e.g., ALA. CODE § 34-24-75(a); ARIZ. REV. STAT. ANN. § 32-1828; ARK. CODE ANN. § 17-95-412; CAL. BUS. & PROF. CODE § 2113; GA. CODE ANN. § 43-34-29; HAW. REV. STAT. § 453-3.2; S.C. CODE ANN. § 40-47-33.

^{299. 225} ILL. COMP. STAT. 60-18(A).

^{300.} TENN. CODE ANN. § 63-6-211(b).

^{301.} Map

http://www.mapquest.com/maps?city=Omaha&state=NE&country=US&latitude=41.258598&longitude=-95.9375&geocode=CITY (last visited March 18, 2010).

^{302.} U.S. Air Force, Base Locator, http://www.airforce.com/baseloc/index.html (last visited Jan. 24, 2010).

^{303.} See Traditional Medical Practice section, supra notes 212-22 and accompanying text.

licenses for each of the different states in which he is stationed. Unlike Dr. Johnson's scenario, most states provide that members of the military with active licenses from any United States jurisdiction may practice medicine in their states, as well.³⁰⁴ Thus, he will only need to maintain his Nebraska medical license even though he practices medicine as part of his military positions in 15 states: Colorado,³⁰⁵ Delaware,³⁰⁶ Georgia,³⁰⁷ Hawaii,³⁰⁸ Idaho,³⁰⁹ Kansas,³¹⁰ Louisiana,³¹¹ Nebraska,³¹² New Jersey,³¹³ New Mexico,³¹⁴ North Dakota,³¹⁵ Oklahoma,³¹⁶ South Dakota,³¹⁷ Tennessee,³¹⁸ and Virginia.³¹⁹ The same one-state medical license requirement would apply if Dr. Montgomery served in the Army or Navy.³²⁰

Travel. Another of Dr. Johnson's classmates, Dr. Ellen Taylor, finished her residency but was not ready to settle into a practice in her current location or anywhere else. Instead, she decided to pursue a *locum tenens*³²¹ medical practice in North Dakota, South Dakota, Nebraska, and Kansas, moving north when weather is warmer and south when weather is colder. She never stays in one place for more than a few months, and she always sees patients that "belong" to the physician for whom she is doing the *locum* tenens work.

To practice medicine in a *locum tenens* capacity in North Dakota, South Dakota, Nebraska, and Kansas, Dr. Taylor will need initially to obtain a medical license in one of these states. Because she graduated from medical school in Nebraska and may return there someday, she may

^{304.} See infra notes 305-19 and accompanying text. (list of states following)

^{305.} COLO. REV. STAT. § 12-36-106.

^{306.} DEL. CODE ANN. tit. 24, § 1703(2).

^{307.} GA. CODE ANN. § 43-34-22(b)(4).

^{308.} HAW. REV. STAT. § 453-2(b)(3).

^{309.} IDAHO CODE ANN. § 54-1804(1)(a).

^{310.} KAN. STAT. ANN. § 65-2872(i).

^{311.} LA. REV. STAT. ANN. § 37:1291(1).

^{312.} NEB. REV. STAT. § 38-2025(5).

^{313.} N.J. STAT. ANN. § 45:9-21(a).

^{314.} N.M. STAT. § 61-6-17(D).

^{315.} N.D. CENT. CODE § 43-17-02(6)

^{316.} OKLA. STAT. tit. 59, § 492(D)(3).

^{317.} S.D. CODIFIED LAWS § 36-4-10.

^{318.} TENN. CODE ANN. § 63-6-204(a)(3).

^{319.} VA. CODE ANN. § 54.1-2901(A)(17). Many other states have similar provisions; this list of states is merely illustrative. See AM. MED. ASS'N, State Medical Licensure Requirements and Statistics, 118 (2010).

^{320.} AM. MED. ASS'N, State Medical Licensure Requirements and Statistics, 118, 119 (2010).

^{321.} For example, according to the Medicare regulations, "Locum tenens physician means a physician who substitutes (that is, 'stands in the shoes') in exigent circumstances for a physician. 42 C.F.R. § 411.35.

choose to apply for a Nebraska license, just as described for Dr. Johnson above.³²² However, North Dakota, South Dakota, and Nebraska all have provisions for *locum tenens* practices³²³ and, for that reason, she may want to obtain a Kansas medical license, also as described above.³²⁴

If Dr. Taylor decides to obtain a Kansas license, she can seek *locum tenens* licenses or permits from Nebraska, North Dakota, and South Dakota. In Nebraska, she can apply for a *locum tenens* permit by submitting an application with the necessary information and paying a fee of \$101.³²⁵ However, her Nebraska *locum tenens* permit is good for no more than 90 days in any 12-month period.³²⁶ In North Dakota, Dr. Taylor can obtain a license for *locum tenens*, good for no more than three months for \$200.³²⁷ In South Dakota, Dr. Taylor can obtain a 60-day *locum tenens* certificate upon completing the application and submitting a \$50 fee.³²⁸

B. OTHER GENERAL ISSUES WITH STATE LICENSURE

Unfortunately, the current state-licensure system affects physicians in ways other than just being burdensome and making it difficult for physicians to decipher whether they need additional state licenses³²⁹ and how to seek and maintain those additional licenses. Several commentators have noted also that physicians are less likely to provide services in areas where they are not licensed, such as in the areas of telemedicine and in times requiring emergency response, because they fear action in the forms of discipline for practicing without licenses and medical-malpractice claims.³³⁰ This is problematic in light of disasters both natural and manmade, such as terrorist events, hurricanes, earthquakes, and other events. As of 2008, 18 states did not have expedited physicians responding to emergency situations.³³¹

^{322.} See supra notes 212-22 and accompanying text.

^{323.} See infra notes 325-28 and accompanying text.

^{324.} See supra notes 260-64 and accompanying text.

^{325. 172} NEB. ADMIN. CODE §§ 88-007.01, 88-015.04.

^{326. 172} Neb. Admin. Code § 88-007.02.

^{327.} N.D. Admin. Code 50-02-01-02, 50-02-07.1-01.

^{328.} S.D. Codified Laws § 36-4-10; S.D. Bd. of Med. & Osteopathic Examiners, http://www.sdbmoe.gov/locum_tenens.aspx (last visited Jan. 17, 2010).

^{329.} See supra notes 274-83 and accompanying text; Thompson, supra note 201, at S37 (noting that the 50 states and 70 total jurisdictions lack licensing uniformity).

^{330.} See, e.g., Id. at S37-38; Lisa Rannefeld, The Doctor Will E-Mail You Now: Physicians' Use of Telemedicine to Treat Patients Over the Internet, 19 J.L. & HEALTH 75, 94 (2005)...

^{331.} Lori A. Boyajian-O'Neill et al., *Physician Licensure During Disasters: A National Survey of State Medical Boards*, 299 J. OF AM. MED. ASS'N 169, 169 (2008).

As a result of physicians' apprehension in providing such services, patient care and availability of services suffer.³³² As one commentator observed:

Allowing states to regulate the physician's conduct does not allow for expansion of telemedicine because most physicians are uncomfortable practicing in states where they are not licensed. Until the federal government implements a national standard of care, state regulations regarding licensure will continue to hinder the growth of telemedicine. Until then, physicians will continue to avoid treating patients in states where they do not have a medical license in order to prevent patient lawsuits. Physicians who avoid these types of medical services harm patients, especially those in rural areas, because specialized physicians are not bringing their valuable knowledge and experience to areas where such services are critically needed.³³³

Not only is availability of services a problem for patients under a state-licensing system, but patients suffer in other ways as well. For instance, several commentators have recognized the problems with physician error and continued practice by incompetent physicians.³³⁴ One commentator, a physician and then-law student, discussed the ways in which state medical boards and peer-review systems are ineffective at detecting and correcting physician incompetence and error. Dr. Gunnar noted:

State medical licensing boards "may revoke a physician's license to practice medicine for malpractice, gross negligence, professional incompetence, or similar acts." Even so, revocation or suspension of a physician license by a state disciplinary action is extremely rare. . . .There are many reasons for the ineffectiveness of state medical licensing boards in revoking or suspending the medical license of incompetent physicians. First, decisions brought against physician under the broad authority of the state medical licensing boards are subject to judicial review. Second, limited budgets and understaffing of the state medical licensing boards preclude defending potential lawsuits from physicians contesting disciplinary actions. Third, physicians have difficulty judging their peers, leaving a paucity of information available for critical evaluation of an

^{332.} Rannefeld, supra note 320, at 94.

^{333.} Id. (citations omitted).

^{334.} See, e.g., William P. Gunnar, The Scope of a Physician's Medical Practice: Is the Public Adequately Protected by State Medical Licensure, Peer Review, and the National Practitioner Data Bank?, 14 ANNALS HEALTH L. 329, 331, 356 (2005) (citations omitted).

incompetent physician. Fourth, there are often lengthy delays in the process by which the state medical boards pursue an incompetent physician. Fifth, due process requirements demand more than circumstantial evidence. . . . In sum, state medical licensing boards require a minimal qualification for physicians to establish and maintain a medical license. In contrast, a high threshold exists for revocation or suspension of a physician's established medical license. In fact, very few cases involving physician incompetence are ever discussed by state licensing boards. Therefore state medical licensing boards cannot be relied upon to act efficiently and consistently in order to effectively police physician misbehavior and incompetence.³³⁵

As a consequence, incompetent physicians continue to practice and treat patients.³³⁶ Indeed, more than 80% of physicians disciplined in 2004 had licenses in states other than where they had been disciplined.³³⁷

Congress attempted to alleviate the problem by enacting the Health Care Quality Improvement Act of 1986 ("HCQIA"), a purpose of which was to "restrict the ability of incompetent physicians to move from State to State without disclosure or discovery of the physician's previous damaging or incompetent performance."³³⁸ The HCQIA established a National Practitioner Data Bank ("NPDB") to which physician malpractice settlements, disciplinary actions by state medical boards, and hospital and other healthcare entities' sanctions must be reported.³³⁹ The troubling aspect from a patient's perspective is that the general public does not have access to the information in the NPDB.³⁴⁰

Part of the problem is that potential exists for incompetent physician behavior to go unrecognized. For example, the physician might have a large practice important to hospital revenue, or the physician might be popular with the members of the peer review committee . . .and might never be objectively scrutinized. The state medical licensing boards and the NPDB must receive reliable report of physician activity that falls below the standard of care.³⁴¹

As then-president and CEO of the Federation of State Medical Boards noted, "Clearly, however, the state boards have neither the

^{335.} Id. at 340-41 (citations omitted).

^{336.} Id. at 356.

^{337.} Thompson, supra note 201, at S37.

^{338. 42} U.S.C. § 11101.

^{339.} Gunnar, supra note 341, at 348-49.

^{340.} Id. at 354-55.

^{341.} Id. at 357.

resources nor the capability to ensure every physician's competency when his or her license is updated."³⁴² Although physicians may be qualified at the time of initial licensing, the ability to obtain additional licensure without reexamination³⁴³ can be problematic from a competency perspective. This problem is compounded because at least six states do not require CME.³⁴⁴

Thus, the current state-licensure system suffers from a host of imperfections, including overburdening physicians, imposing complicated and indecipherable regulations on physicians' licensure, potentially sacrificing patient care and availability of services, and failing to ensure continuing physician competency.³⁴⁵

IV. FEDERAL MEDICAL LICENSURE PROPERLY UTILIZES EXISTING MEDICAL INFRASTRUCTURE AND PROMOTES HIGH MEDICAL STANDARDS

Federal medical licensure has the potential to utilize the already existing medical standards and accrediting systems to promote high medical standards throughout the United States.³⁴⁶ Using federal funds to encourage full state commitment is an option to achieve uniform high standards for medical licensure.³⁴⁷ However, a more straightforward approach is federal preemption of medical licensure³⁴⁸ to overcome the problems associated with the current state-licensure system.³⁴⁹

An example federal medical licensure system follows:

NATIONAL BOARD OF MEDICINE ACT

<u>Section 1. Title</u>. This Act shall be known as the National Board of Medicine Act.

Section 2. Findings and Purposes.

1. Findings. Congress finds that healthcare consumers and the profession of medicine will benefit from national licensure of physicians.

^{342.} Thompson, supra note 201, at S38.

^{343.} AM. MED. ASS'N, State Medical Licensure Requirements and Statistics, 11-15 (2010).

^{344.} Thompson, supra note 201, at S37.

^{345.} See supra notes 201-344 and accompanying text.

^{346.} See supra notes 7-200 and accompanying text.

^{347.} Fordham, supra note 7, at 836; see also infra notes 362-64 and accompanying text. Jefferson B. Fordham, Medical Licensure, 192 JAMA 832, 836 (1965).

^{348.} Id. at 834.

^{349.} See supra notes 201-345 and accompanying text.

2. Goals. The Act's purpose is to:

(a) Regulate the admission to and the practice of medicine in the United States.

(b) Admission to practice of medicine is accomplished by a license being issued to a qualified applicant by the Board, which has concurrent jurisdiction in the United States for medical licensure with a Medical Board in each State or Territory of the United States, as of July 1, 2011.

(c) Encourage high professional standards in the practice of medicine for all physicians to improve healthcare to all healthcare consumers.

Section 3. Definitions.

The following words and phrases, when used in this Act, have the meanings given in this section, unless the context clearly indicates otherwise:

"ABMS." The American Board of Medical Specialties, a not-for-profit organization, assists its approved medical specialty boards in the development and use of standards in the ongoing evaluation and certification of physicians.

"ACGME." The Accreditation Council for Graduate Medical Education is responsible for the accreditation of post-M.D. medical training programs within the United States.

"Board." The National Board for Medicine is established by this Act as an agency of the United States Department of Health and Human Services.

"Board Members." The Board Members shall be appointed by the Secretary of the Department of Health and Human Services on recommendation of the Director for the purpose of assisting the Director and the Board on matters of medical licensure. The Board Members shall be number not fewer than fifty physicians licensed in the United States for at least five years and not less than ten non-physician public members.

"Board certification." A physician obtains board certification through one of the ABMS Member Boards.

"Director." The Director is responsible for providing leadership to the Board and for constantly identifying needs and opportunities to improve the practice of medicine and healthcare.

"Executive Secretary." The Executive Secretary to the Board shall be appointed by the Secretary of the Department of Health and Human Services on recommendation of the Director. The Executive Secretary shall assist the Director and Board Members in performing their duties.

"FSMB." Federation of State Medical Boards.

"Healthcare consumer." Any actual or potential recipient of healthcare services, including but not limited to a patient in a hospital, a client in a community mental health center, or a member of a prepaid health maintenance organization.

"Hospital." A hospital is defined by the Joint Commission, an independent, not-for-profit organization, that accredits and certifies more than 17,000 healthcare organizations and programs in the United States.

"LCME." The Liaison Committee on Medical Education is the accrediting agency for United States and Canadian medical education programs leading to the M.D. degree.

"M.D."³⁵⁰ The degree of medical doctor.

"Medical licensure" provides a physician with a legal privilege for the practice of medicine.³⁵¹

"NBME." National Board of Medical Examiners.

"Permittee." Holder of a limited permit for the practice of medicine.

"Physician." Only a person licensed or otherwise authorized under this Act shall practice medicine or use the title "physician," and a violation is punishable by the Act.

"Practice of medicine." The practice of medicine is defined as diagnosing, treating, operating, or prescribing

^{350.} The D.O. degree may ultimately be incorporated into the National Board for Medicine Act, but discussion of the D.O. training is outside the scope of this article. See note 99.

^{351.} Am. Med. Ass'n, State Medical Licensure Requirements and Statistics, 127 (2010).

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for any human disease, pain, injury, deformity, or physical condition.

"Resident." A physician in an LCME accredited graduate medical education program, including the first training year sometimes referred to as the internship year.

"SPEX." The Special Purpose Examination is developed by the FSMB to assess knowledge required of all physicians.³⁵²

"USMLE." The United States Medical Licensing Examination is a joint program of the FSMB and the NBME.

Section 4. Requirements for initial medical licensure. To qualify for medical licensure as a physician, an applicant shall fulfill the following requirements:

1. Application: file an application with the Board;

2. Education: have received an M.D. degree from an LCME-accredited medical school or an equivalent degree in accordance with the Board's regulations;

3. Experience: have completed an ACGME training program or its equivalent in accordance with the Board's regulations;

4. Examination: pass the USMLE;

5. Age: be at least twenty-one years of age;

6. Citizenship or immigration status: be a United States citizen or an alien lawfully admitted for permanent residence in the United States;

7. Character: be of good moral character as determined by the Board;

8. Fees: pay a fee of four hundred dollars to the Board for an initial license, adjusted for inflation by the Board; and

9. Duration: initial medical licensure is valid for three years, expiring on the physician's birthday in the third calendar year.

^{352.} Am. Med. Ass'n, State Medical Licensure Requirements and Statistics, 19, 98 (2010).

Section 5. Reregistration/renewal of medical licensure

1. Application: file an application with the Board;

2. Licensure: have medical licensure granted by the Board, or state medical licensure if date is before July 1, 2015;

3. Education: have received an M.D. degree from an LCME-accredited medical school or an equivalent degree in accordance with the Board's regulations;

4. Experience: have completed an ACGME training program or its equivalent in accordance with the Board's regulations;

5. Examination: pass the SPEX for reregistration of medial licensure if USMLE or ABMS certification examination has not been taken within 10 years;

6. Citizenship or immigration status: be a United States citizen or an alien lawfully admitted for permanent residence in the United States;

7. Character: be of good moral character as determined by the Board;

8. Fees: pay a fee of six hundred dollars for biennial reregistration after initial licensure or prior reregistration licensure, adjust for inflation by the Board; and

9. Duration: reregistered licensure is valid for two years, expiring on the physician's birthday in the second calendar year following reregistration.

10. No physician may be reregistered unless he or she, as part of the reregistration application, includes an attestation made under penalty of perjury, in a form prescribed by the Board, that he or she has, within the six months prior to submission of the re-registration application, updated his or her physician profile on record with the Board.

Section 6. Requirements for limited permits. Permits limited as to eligibility, practice, and duration will be issued by the Board to eligible applicants, as follows:

1. Eligibility: The following persons shall be eligible for a limited permit:

(a) A person who fulfills all requirements for a license as a physician except those provisions relating to (i) passing the USMLE or SPEX or (ii) citizenship or permanent residence in the United States;

(b) A foreign physician who holds a standard certificate from the Educational Council for Foreign Medical Graduates or who has passed an examination satisfactory to the Board and in accordance with the Board's regulations; or,

(c) A foreign physician or a foreign resident who is in this country on a non-immigration visa for the continuation of medical study, pursuant to the exchange student program of the United States Department of State.

2. Limit of practice. A Permittee shall be authorized to practice medicine only under the supervision of a licensed physician and only in a hospital.

3. Duration. A limited permit shall be valid for two years. It may be renewed biennially at the discretion of the Board.

4. Fees. The fee for each limited permit and for each renewal shall be eight hundred dollars.

Section 7. Exempt persons. The following persons, under the following limitations, may practice medicine within the United States without a license:

1. Any physician who is employed as a resident in a Hospital and who is a graduate of an LCME-accredited medical school, provided such practice is limited to such Hospital and is under the supervision of a licensed physician;

2. Any physician who is licensed in another country and who is meeting a physician licensed in the United States, for purposes of consultation, provided such practice is limited to such consultation;

3. Any physician who is licensed in another country, who is visiting a medical school or teaching hospital in the United States to receive medical instruction for a period not to exceed six months or to conduct medical instruction, provided such practice is limited to such instruction and is under the supervision of a licensed physician;

4. Any physician who is authorized by a foreign government to practice in relation to its diplomatic, consular, or maritime staffs, provided such practice is limited to such staffs; or,

5. Any medical student who is performing a clinical clerkship or similar function in a Hospital and who is matriculated in an LCME-accredited medical school, provided such practice is limited to such clerkship or similar function in such Hospital.

6. Any dentist or dental-school graduate who administers anesthesia as part of a Hospital residency program established for the purpose of training dentists in anesthesiology.

Section 8. Special provisions.

1. Notwithstanding any inconsistent provision of any general, special, or local law, any licensed physician who renders first aid or emergency treatment at the scene of an accident or other emergency, outside a hospital, doctor's office, or any other place having proper and necessary medical equipment, voluntarily and without the expectation of monetary compensation, to a person who is unconscious, ill, or injured, shall not be liable for damages for injuries alleged to have been sustained by such person or for damages for the death of such person alleged to have occurred by reason of an act or omission in the rendering of such first aid or emergency treatment unless it is established that such injuries were or such death was caused by gross negligence on the part of such physician. Nothing in this subdivision shall be construed to relieve a licensed physician from liability for damages for injuries or death caused by an act or omission on a physician's part while rendering professional services in the ordinary course of his practice.

2. This section shall not be construed to affect or prevent the following:

(a)The furnishing of medical assistance in an emergency;

(b)The practice of the religious tenets of any church;

(c) The refusal to perform an act constituting the practice of medicine to which he or she is conscientiously opposed by reason of religious training and belief;

(d) The organization of a medical corporation; or,

(e) The physician's use of whatever medical care, conventional or nonconventional, that effectively treats human disease, pain, injury, deformity, or physical condition.

3. A licensed physician may prescribe and order a nonpatient specific regimen to a registered professional nurse, pursuant to regulations promulgated by the Board, and consistent with the public health law, for:

(a) Administering immunizations;

(b) The emergency treatment of anaphylaxis;

(c) Administering purified protein derivative tests; or,

(d)Administering tests to determine the presence of the human immunodeficiency virus.

Section 9. Board, Director, and Board Members. The Act shall take effect on the 121st day following enactment. The Director and Board Members are authorized to promulgate regulations to fulfill the mission of the Board.

* * *

As one scholar noted, suggesting that the federal government regulate an area presently regulated by the states without discussing the constitutionality of that federal action "would be remiss."³⁵³ Thus, a brief detour into Congress's power to regulate medical licensing is warranted. A host of scholars has specifically addressed whether Congress would be constitutionally permitted to regulate various aspects of medicine, including "the practice of medicine" as a general proposition.³⁵⁴ Those

353. Nicole Huberfeld, *Be Not Afraid of Change: Time to Eliminate the Corporate Practice of Medicine Doctrine*, 14 HEALTH MATRIX 243, 281 (2004) (hereinafter Huberfeld I) (arguing to eliminate the corporate-practice-of-medicine doctrine through federal legislation).

^{354.} See infra notes 355-64 and accompanying text.

scholars have identified two separate constitutional justifications for federal medical regulation.³⁵⁵

The first avenue by which Congress could permissibly regulate federal medical licensure is the commerce clause. Scholars examining the issue of the healthcare industry and its connection to interstate commerce have worked through the progression of commerce clause cases, including the more recent and arguably pro-federalist *United States v. Lopez*³⁵⁶ and *United States v. Morrison*³⁵⁷ decisions.³⁵⁸ However, these scholars have concluded that despite the Court's pro-federalism tone in *Lopez* and *Morrison*, federal regulation of medical practice passes constitutional muster because the healthcare industry is itself a significant commercial enterprise³⁵⁹ with substantial effects on interstate commerce.³⁶⁰ Any question the Supreme Court might have about healthcare and, specifically, medical licensing's tie to interstate commerce could be alleviated with specific Congressional findings of fact to this effect.³⁶¹

359. See, e.g., Elliott et al., supra note 358, at 771 (arguing that federal regulation of medical-injury or malpractice litigation "is itself a commercial activity"); Noah, supra note 358, at 170 (stating, "The delivery of health care services clearly represents a commercial activity within the national economy"); Huberfeld I, supra note 353, at 286 (determining that healthcare "is indubitably an economic activity" and that "health care is considered an industry, a marketplace, and a profession, and is certainly an economic activity").

361. See Elliott et al., supra note 358, at 767 (concluding that "[p]rovided that Congress holds appropriate hearings and makes factual findings documenting substantial effects on interstate commerce from the present system of medical malpractice litigation ... Congress has power to create a federal system to

^{355.} See infra notes 356-64 and accompanying text.

^{356. 514} U.S. 549 (1995).

^{357. 529} U.S. 598 (2000).

^{358.} See, e.g., E. Donald Elliott et al., Administrative "Health Courts" for Medical Injury Claims: The Federal Constitutional Issues, 33 J. HEALTH POL. POL'Y & L. 761, 767-74 (2008) (discussing Lopez and Morrison and the Supreme court's "rediscovery" of the states' role "as a limit on federal power"); Lars Noah, Ambivalent Commitments to Federalism in Controlling the Practice of Medicine, 53 U. KAN. L. REV. 149, 158-71 (2004) (discussing cases from the 1800's and 1900's regarding Congress's power under the commerce clause, including Lopez and Morrison); Huberfeld I, supra note 353, at 281-88 (outlining the commerce-clause analysis in Lopez and Morrison).

^{360.} See, e.g., Elliott et al., supra note 358, at 772 (arguing that medical malpractice litigation substantially affects interstate commerce because such litigation "may have effects on medical care including on physician supply, availability of some forms of health care in certain areas and increasing costs for defensive medicine"); Noah, supra note 358, at 169-70 (citations omitted) (noting that government and private purchases of physician services "may have sufficient connections with interstate commerce to allow for federal regulation" because "patients may travel across state lines, particularly for innovative procedures not yet widely available, ... physicians or clinics may advertise their services to attract both local and distant customers, [and] the emergence of 'cybermedicine' further erodes the relevance of state borders"); Huberfeld I, supra note 353, at 283 (noting that "[t]he health care industry involves shipping pharmaceuticals, medical devices, disposable materials, even human organs, and many other materials across state lines" and that "[p]atients regularly travel to different states in order to obtain health care services"); Susan E. Volkert, *Telemedicine: Rx for the Future of Health Care*, 6 MICH. TELECOMM. & TECH. L. REV. 147, 177 (2000) (citing United States v. Lopez, 514 U.S. 549, 559 (1995) (stating, "Arguably, Congress has the authority to regulate [telemedicine] since it has a substantial effect on interstate commerce").

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Scholars have additionally concluded that Congressional action in the healthcare arena would be constitutional as a result of the right to exercise its spending power.³⁶² For instance, Nicole Huberfeld noted in her 2008 article on the spending power that "[t]he federal government currently accounts for approximately forty percent of healthcare spending each year, a direct result of Congress's power to spend for the general welfare."³⁶³ Those estimates were, of course, even prior to the recent national healthcare package that Congress passed.³⁶⁴ As a result, so long as Congress conditions the receipt of federal healthcare funds on cooperating with its federal medical licensing program and provides proper notice to states of that condition, Congress would also be able to regulate medical licensing with its spending power.³⁶⁵

There will be a place in the federal medical licensure system for a state medical board, whether state or federally administered, to administer the day-to-day activities of licensing and disciplining doctors.³⁶⁶ The state medical boards can have concurrent jurisdiction with the National Board of Medicine.³⁶⁷ However, federal preemption in the field of medical

(a) Powers of Board generally

regulate medical injuries under the commerce clause").

^{362.} See, e.g., Elliott et al., supra note 358, at 774 (noting that "an even stronger ground for federal authority to regulate medical malpractice litigation [than the commerce clause] would be the spending clause"); Noah, supra note 358, at 169 (citations omitted) (noting that annual expenditures on physician and clinical services amount to \$286 billion of the total \$1.3 trillion spent on health care and that, as a result, "because the Supreme Court has not yet imposed any meaningful limitations on the spending power, the federal government could regulate health care professionals without ever having to invoke the Commerce Clause").

^{363.} Nicole Huberfeld, Clear Notice for Conditions on Spending, Unclear Implications for States in Federal Healthcare Programs, 86 N.C. L. REV. 441, 444 (2008) (hereinafter Huberfeld II) (citation omitted). In this article, Huberfeld interpreted the Supreme Court's 2006 decision in Arlington Central School Board v. Murphy, 548 U.S. 291 (2006), as "redefining the kind of notice states must have in order to knowingly accept conditioned federal spending." Id. at 443.

^{364.} Patient Protection and Affordable Care Act, Pub. L. No. 111-148.

^{365.} See, e.g., Elliott et al., supra note 358, at 776-777 (citations omitted) (describing three conditions of spending power, including spending in pursuit of general welfare, conditioning receipt of federal funds such that states may knowingly exercise a choice to participate, and a relationship to the federal interest in particular national projects or programs). See also Huberfeld II, supra note 363, at 444 (describing the *Arlington* decision as requiring a "clear notice standard" that "appears to demand more specific statutory language from Congress" before the spending power is properly exercised.)

^{366.} Federation of State Med. Bds., Director of Medical Bords, http://www.fsmb.org/ directory_smb.html (last visited March 20, 2010.

^{367.} Concurrent jurisdiction is certainly not without precedent. See, e.g., National Labor Relations Act, 29 U.S.C. § 160, which provides:

The Board is empowered, as hereinafter provided, to prevent any person from engaging in any unfair labor practice (listed in section 158 of this title) affecting commerce. This power shall not be affected by any other means of adjustment or prevention that has been or may be established by agreement, law, or otherwise: Provided, That the Board is empowered by agreement with any agency of any State or Territory to cede to such agency jurisdiction over any cases in any industry (other

licensure, which includes defining the practice of medicine, is required to avoid conflicting federal and state medical licensing regulation; otherwise, the benefits of federal medical licensure could be defeated by state medical boards not following national licensing standards or by state medical boards expanding the scope of medical practice:

The constitutional principles of preemption, in whatever particular field of law they operate, are designed with a common end in view: to avoid conflicting regulation of conduct by various official bodies which might have some authority over the subject matter.³⁶⁸

Federal medical licensure would streamline the licensing process for physicians while assuring doctors meet uniform high standards of medical practice in the twenty-first century.

V. CONCLUSION

States currently license medical doctors for the benefit of the public health of their citizens, but modern technology shows medical practice crossing state boundaries like never before. Therefore, the United States Congress ought to enact legislation creating federal medical licensure and abolishing state medical licensure.

It is no longer realistic to expect a physician to pass state medical board examination, then practice in that state for the remainder of his or her career. State medical licensing was developed in an era of small federal government when there was ubiquitous substandard medical training; however, the federal government is now large and capable of regulating federal medical licensure, while United States medical training is homogeneously meeting national standards.

Additionally, universal healthcare coverage for all United States residents cannot realistically exist until the practice of medicine is defined at the national level. Once there is a federal definition for the practice of medicine, federal medical licensure is a natural and efficient means of assuring the definition is used in United States healthcare.

Id.

than mining, manufacturing, communications, and transportation except where predominantly local in character) even though such cases may involve labor disputes affecting commerce, unless the provision of the State or Territorial statute applicable to the determination of such cases by such agency is inconsistent with the corresponding provision of this subchapter or has received a construction inconsistent therewith.

^{368.} Amalgamated Ass'n of Street Employees v. Lockridge, 403 U.S. 274, 285-86 (1971).