

Why the Use of Telemedicine can Alleviate the
Burden of Current Scope of Practice Norms
for Nurse Practitioners and the Primary Care
Shortage in the United States

*Tyler Hanson**

I. INTRODUCTION

As changes to health care mandated by the Patient Protection and Affordable Care Act (PPACA) begin to come to fruition, questions of how to deliver care continue to arise because of the increasing shortage of primary care physicians.¹ The United States expects an additional twenty-four million citizens to join Medicaid by 2016 under the expansion put in place by the PPACA.² Already plagued with a shortage of primary care physicians, leaders in health care are increasingly utilizing the expertise of other care providers, including nurse practitioners, to delivery primary care.³ However, nurse practitioners in many states are burdened with scope of practice laws, which prevent them from being able to efficiently provide care to patients without the close monitoring of a licensed physician.⁴

* Juris Doctor Candidate, Loyola University Chicago School of Law, Class of 2015. Ms. Hanson is a staff member of Annals of Health Law.

1. Jason Fodeman, *The New Health Law: Bad News for Doctors, Awful for Patients*, THE INST. FOR HEALTHCARE CONSUMERISM, http://www.theihcc.com/en/communities/policy_legislation/the-new-health-law-bad-for-doctors-awful-for-patie_gn17y01k.html (last visted Dec. 12, 2013).

2. CTR. FOR MEDICARE & MEDICAID SERS., DEP'T OF HEALTH AND HUMAN SERVS., MEDICAID PROGRAM; ELIGIBILITY CHANGES UNDER THE AFFORDABLE CARE ACT OF 2010 (2012) 1, 11, *available at* http://www.medicaid.gov/AffordableCareAct/Provisions/Downloads/MedicaidEligibilityFinalRule_Regulatory-Impact-Analysis.pdf.

3. *See generally* Tine Hansen-Turton et al., *Nurse Practitioners in Primary Care*, 82 TEMP. L. REV. 1235 (2009-2010).

4. *Id.* at 1245-46.

Some states with restrictive scope of practice laws, prevent nurse practitioners from being able to deliver care without close collaboration, and therefore further hinder their ability to reduce the primary care shortage in the United States.

In the midst of this dilemma, more innovative providers in health care consider using advancing technology as a helpful resource in finding a solution to the primary care shortage. Telemedicine is defined as the use of electronic communication and information technology to provide or assist clinical care at a distance.⁵ Telemedicine is considered a viable platform for delivering health care to patients in need.⁶ The use of this innovative technology can remedy the primary care shortage that will only continue to grow as the PPACA's Medicaid expansion is fully implemented. Coupled with the use of nurse practitioners, telemedicine is a delivery system that can expand access to primary care in anticipation of the dramatic increase in Medicaid patients entering the healthcare market beginning in 2014.

This article will discuss how the combined use of nurse practitioners and telemedicine is a solution to addressing the needs of newly insured individuals. Part II of this article discusses some of the impending changes to health care with the implementation of the PPACA. Part III of this article discusses how nurse practitioners are utilized to fill in the primary care gaps in the United States and why they are an important resource. Part IV discusses some of the obstacles that many nurse practitioners face due to overly restrictive scope of practice laws. Part V defines telemedicine and provides background on its successful uses. Finally, Part VI discusses how nurse practitioners can utilize telemedicine to expand primary care access to

5. Amy E. Zilis, *The Doctor Will Skype You Now: How Changing Physician Licensure Requirements Would Clear the Way for Telemedicine to Achieve the Goals of the Affordable Care Act*, U. Ill. J.L., TECH. & POL'Y. 193, 196 (Vol. 2012).

6. *Id.* at 203-208.

meet the needs of the United States' patient population and its expected increase of Medicaid patients.

II. CHANGES UNDER THE PPACA THAT WILL FURTHER AFFECT PRIMARY CARE ACCESS

The PPACA became law on March 23, 2010, in an attempt to solve many of the current issues plaguing the United States' healthcare system.⁷ Some of its many objectives are to increase access to health care for individuals who could not previously afford healthcare coverage, lower healthcare costs, and improve the quality of care delivered to patients.⁸ The passing and subsequent upholding of the PPACA is controversial in both the legal and healthcare fields; it has sparked debate about the individual mandate, PPACA's coverage of controversial women's health issues, and the cumbersome transition process it is predicted to bring.⁹

In 2014, the Medicaid program will expand to include populations that were previously ineligible for coverage under Medicaid.¹⁰ Traditionally, Medicaid was a program that provided medical coverage for a very specific group of people: children, pregnant women, some parents of Medicaid-eligible children, and seniors, who met a certain income requirements.¹¹ After the PPACA is completely implemented in 2014, Medicaid eligibility will expand to include all citizens with an income up to 133 percent of the

7. Zilis 2012, *supra* note 44 at 197.

8. CTR. FOR MEDICARE & MEDICAID SERVS., ASSURING ACCESS TO AFFORDABLE COVERAGE: MEDICAID AND THE CHILDREN'S HEALTH INSURANCE PROGRAM FINAL RULE (2012), *available* at <http://www.medicaid.gov/AffordableCareAct/Provisions/Downloads/MedicaidCHIP-Eligibility-Final-Rule-Fact-Sheet-Final-3-16-12.pdf>.

9. Roy G. Spece, Jr., *Constitutional Attacks Against the Patient Protection and Affordable Care Act's "Mandating" That Certain Individuals And Employers Purchase Insurance While Restricting Purchase By Undocumented Immigrants and Women Seeking Abortion Coverage*, 38 N. KY. L. REV. 489, 497-98 (2011).

10. CTR. FOR MEDICARE & MEDICAID SERVS., DEP'T OF HEALTH AND HUMAN SERVS., *supra* note 1 at 11.

11. *Id.* at 5.

federal poverty line.¹² By 2016, it is estimated that an additional twenty-four million people will be enrolled in Medicaid.¹³

Opponents of the PPACA believe that an increased cost, a shortage of healthcare providers, and a drop in quality of care will accompany the new spike in patients seeking basic medical treatment under the Medicaid expansion.¹⁴ Many of the individuals that will be newly eligible for Medicaid coverage under the PPACA are the same individuals that typically avoided primary care appointments because they could not afford to visit a doctor solely for preventative care. This expansion in coverage, along with the individual mandate, will provide this large group of previously uninsured individuals the opportunity to receive general checkups, preventive screenings, and early diagnoses.¹⁵ Previously uninsured individuals will also be able to monitor their health conditions with the help of a care provider.¹⁶ With the upcoming influx of new individuals that will have access to preventive and primary care services under the PPACA, experts in the health fields are debating about how the increase in needed care will be delivered.¹⁷ The use of telemedicine coupled with skilled nurse practitioners can provide this much needed care

12. *Id.* at 7. Individuals must also meet citizenship requirements and must be under the age of 65. *Id.*

13. *Id.* at 11.

14. Fodeman, *supra* note 1, http://www.theihcc.com/en/communities/policy_legislation/the-new-health-law-bad-for-doctors-awful-for-patie_gn17y01k.html. (last visited Dec. 12, 2013).

15. See CTR. FOR MEDICARE & MEDICAID SERS., DEP'T OF HEALTH AND HUMAN SERVS., MEDICAID PROGRAM; ELIGIBILITY CHANGES UNDER THE AFFORDABLE CARE ACT OF 2010 (March 2012), http://www.medicaid.gov/AffordableCareAct/Provisions/Downloads/MedicaidEligibilityFinalRule_Regulatory-Impact-Analysis.pdf.

16. See CTR. FOR MEDICARE & MEDICAID SERS., DEP'T OF HEALTH AND HUMAN SERVS., MEDICAID PROGRAM; ELIGIBILITY CHANGES UNDER THE AFFORDABLE CARE ACT OF 2010 (March 2012), 4-6, http://www.medicaid.gov/AffordableCareAct/Provisions/Downloads/MedicaidEligibilityFinalRule_Regulatory-Impact-Analysis.pdf.

17. Fodeman, *supra* note 1, http://www.theihcc.com/en/communities/policy_legislation/the-new-health-law-bad-for-doctors-awful-for-patie_gn17y01k.html. (last visited Dec. 12, 2013).

effectively.

III. NURSE PRACTITIONERS AND SCOPE OF PRACTICE

Due to the shortage of primary care physicians, nurse practitioners are currently utilized as a quality source of primary care for patients.¹⁸ While the number of practicing physicians was only increasing at an annual rate of 1.17% in 2008, the number of practicing nurse practitioners increased at 9.5%.¹⁹ Nurse practitioners are registered nurses that have completed additional schooling and clinical training beyond a traditional nursing degree.²⁰ Nurse practitioners are afforded more responsibilities than registered nurses, including, but not limited to, the ability to diagnose conditions, treat health conditions, order and interpret x-rays and other diagnostic tests, prescribe medications, and administer immunizations.²¹ Additionally, a licensed nurse practitioner can choose to specialize his or her practice and become further trained in a variety of specialties ranging from pediatrics to oncology.²² Although nurse practitioners have expert credentials and are afforded great responsibilities, they are still stifled by state scope of practice laws.²³ These restrictions burden nurse practitioners,

18. Hansen-Turton 2010, *supra* note 3 at 1244 (“A 2000 study found that physicians and nurse practitioners practicing in community-based primary care clinics achieved similar patient outcomes when the nurse practitioners employed a medical mode of care and had the same degree of authority.”).

19. Hansen-Turton et al. 2010, *supra* note 3 at 1240.

20. *Id.* at 1243. Nurse practitioners typically have either a master’s degree and some have even earned doctorates in the field of nursing. *Id.*

21. *Id.* at 1243-44. Additionally nurse practitioners can provide prenatal care, childcare, family planning services, gynecological services, and perform physical examinations. *Id.*

22. AM. MED. ASS’N, AMA SCOPE OF PRACTICE DATA SERIES: NURSE PRACTITIONERS, 55-57 (2009) available at <http://www.aanp.org/images/documents/state-leg-reg/08-0424-SOPNurseRevised%2010-09.pdf> (“Today NPs specialize in such areas as acute care pediatrics, cardiology, critical care, diabetes management, dermatology, emergency medicine, home health, holistic nursing, gastroenterology, long-term care, neonatology, nephrology, neuroscience, occupational health, oncology, psychiatrics and mental health, school health, surgery and wound, ostomy, and continence care.”).

23. Barbara J. Safriet, *Closing the Gap Between Can and May in Health-Care Providers’ Scopes of Practice: A Primer for Policymakers*, 19 YALE J. ON REG. 301, 306

despite studies that show nurse practitioners produce similar or equal patient outcomes as licensed primary care physicians.²⁴

Generally, scope of practice laws define a particular practice or profession. These laws create boundaries and limit the practice of that profession to individuals who have acquired certain credentials, completed required training, or passed specific examinations.²⁵ The correct scope of practice boundaries for nurse practitioners is greatly debated.²⁶ Proponents of strict scope of practice laws want to severely limit what care nurse practitioners can provide for a patient, leaving the practice of medicine and the medical community inherently reliant on physicians.²⁷ Opponents, on the other hand, argue that the scope of practice of nurse practitioners should be expanded to increase access for patients and to decrease overall costs.²⁸ These opponents also focus on potential quality of care issues, a decrease in physician salaries, and the need for collaborative agreements when utilizing nurse practitioners for primary care services.²⁹

Those that argue for an expanded scope of practice for nurse practitioners believe that the use of advanced practice nurses is an answer for the shortage in primary care physicians and general lack of access to

(2002).

24. Hansen-Turton 2010, *supra* note 3 at 1244 (“A 2000 study found that physicians and nurse practitioners practicing in community-based primary care clinics achieved similar patient outcomes when the nurse practitioners employed a medical mode of care and had the same degree of authority.”).

25. Safriet 2002, *supra* note 24 at 206.

26. *Id.*

27. See AM. MED. ASS’N, AMA SCOPE OF PRACTICE DATA SERIES: NURSE PRACTITIONERS, 55-57 (2009), available at <http://www.aanp.org/images/documents/state-leg-reg/08-0424SOPNurseRevised%2010-09.pdf>.

28. Safriet 2002, *supra* note 25, at 323. Opponents to strict scope of practice laws want restrictions lifted off of practitioners so that they can provide more care and opponents also want the medical field to evolve into one that allows overlaps among different medical professionals. *Id.* Simplifying scope of practice and obtaining a greater understanding of professional roles will give consumers more options for care, increase mobility of providers, and will optimally utilize healthcare resources available in the United States. *Id.*

29. *Id.* at 323.

health care.³⁰ This year, the World Health Organization found that there are only twenty-four physicians for every 10,000 people in the United States.³¹ Not only is there an overall shortage of licensed physicians in the United States, but there is an even greater shortage of primary care physicians.³² In 2008, a survey of medical students revealed that only two percent of medical school graduates aimed to become a primary care physician.³³ This statistic is not shocking considering the dramatic difference in earnings of a primary care physician compared to that of a physician who chooses to specialize in a particular field.³⁴ There are a higher number of advanced practice nurses entering into the workforce compared to physicians, and their salaries are lower than physicians, allowing them to charge less for services.³⁵ Nurse practitioners not only provide more primary care supply, but they can do so at a lower cost.

Today, the majority of states require a collaborative agreement between a nurse practitioner and a physician in order for a nurse practitioner to provide care to patients.³⁶ Through these agreements, a nurse practitioner is required to meet with a physician to have his or her work reviewed, to ensure that certain protocol is followed, and to get approval to write prescriptions.³⁷ The intensity of this relationship varies from state to state;

30. See generally Hansen-Turton et al. 2010, *supra* note 3 at 1235-1262.

31. WORLD HEALTH ORGANIZATION, WORLD HEALTH STATISTICS 2013, at 126 (2013), available at http://www.who.int/gho/publications/world_health_statistics/EN_WHS2013_Part3.pdf.

32. Hansen-Turton et al. 2010, *supra* note 3, at 1238.

33. *Id.* at 1239 (citing Karen Hauer et al., *Factors Associated with Medical Students' Career Choices Regarding Internal Medicine*, 300 JAMA 1154, 1157 (2008)).

34. *Id.* at 1238. The median income for a specialized doctor is about two times the salary of a primary care physician; this is a figure that continues to increase. Thomas Bodenheimer, *Primary Care-Will It Survive?*, NEW ENG. J. MED. 861, 862 (2006).

35. *Id.* at 1240; Stephanie Gunselman, *The Conrad "State-30" Program: A Temporary Relief to the U.S. Shortage of Physicians or a Contributor to the Brain Drain?*, 5 J. HEALTH & BIOMEDICAL L. 93, 110 (2009).

36. Hansen-Turton et al. 2010, *supra* note 3 at 1245.

37. Ann Ritter, et al., *The Primary Care Paradigm Shift: An Overview of the State-Level*

some states require more frequent and in-depth reviews than others.³⁸ Twenty-five states prohibit a nurse practitioner from writing a prescription for a patient without the consent of a collaborating physician.³⁹ Some states even restrict the scope of practice of nurse practitioners to certain practice sites, areas, and facilities.⁴⁰

Complying with these types of standards can be especially difficult for a nurse practitioner that is treating patients in a rural area or in other situations where physician oversight is not readily accessible. Restrictive scope of practice laws can hinder the ability to utilize nurse practitioners as primary care providers while the United States continues to experience a shortage in primary care physicians.⁴¹ Although scope of practice laws for nurse practitioners are seemingly contradictory to the government's goal of improving access to health care, the use of telemedicine is a tool that can mitigate these laws' negative effects while providing the supervision the laws aim to achieve. Telemedicine gives healthcare providers the ability to communicate, share records, provide feedback, and see test results quickly, making it a viable tool to alleviate scope of practice issues.

IV. WHAT IS TELEMEDICINE AND CAN IT HELP?

Telemedicine is defined as the use of electronic communication and information technologies to provide or support clinical care at a distance.⁴² Telemedicine gives a healthcare provider the ability to consult with patients, diagnose disease, deliver treatment, conduct examinations, review

Legal Framework Governing Nurse Practitioner Practice, 20 *THE HEALTH LAW.*, 21, 23-25 (April 2008).

38. *Id.* at 23.

39. *Id.* at 24.

40. Safriet 2002, *supra* note 25 at 314.

41. *Id.*

42. Zilis 2012, *supra* note 44, at 196.

patient records, and watch live radiology scans from a remote location.⁴³

Since the late 1950's,⁴⁴ telemedicine has been successfully implemented by university hospitals to help deliver quality care,⁴⁵ by the United States Department of Justice for inmate care, and in impoverished countries around the world to reach patients in rural areas.⁴⁶ In 1959, the University of Nebraska was one of the first entities to successfully use telemedicine.⁴⁷ It did so by utilizing a closed-circuit television to deliver care and educate at a distance.⁴⁸ In the 1960's, the National Aeronautics and Space Administration (NASA) developed its own telemedicine system, specifically designed to monitor the health of astronauts while in space.⁴⁹ NASA continued to develop its telemedicine use and subsequently used it to deliver health care to Arizona's rural Papago Indian Reservation.⁵⁰ The use of telemedicine began to facilitate remote surgeries in 2001, when a surgeon stationed in New York performed a gallbladder surgery on a patient in Strasbourg, France.⁵¹ Today, the use of telemedicine continues to advance and gain acceptance; it is now a healthcare method that is reimbursable by government health programs.⁵²

The use of telemedicine is successfully used in several different

43. *What is Telemedicine?* AM. TELEMEDICINE ASS'N, <http://www.americantelemed.org/learn> (last visited Oct. 27, 2013).

44. Zilis 2012, *supra* note 5 at 197.

45. *Id.* at 203-08.

46. Paul Spradley, "Telemedicine: The Law Is the Limit", 14 TUL. J. TECH. & INTELL. PROP. 307, 308 (2011).

47. Zilis 2012, *supra* note 44, at 196.

48. *Id.* at 196 (quoting William J. Crump, *A Telemedicine Primer: An Introduction to the Technology and an Overview of the Literature*, 4 ARCH. FAM. MED. 796, 797 (Sept. 1995), available at <http://archfami.ama-assn.org/cgi/reprint/4/9/796.pdf>).

49. Spradley 2011, *supra* note 46 at 310.

50. *Id.* The project, known as STARPHAC (Space Technology Applied to Rural Papago Advanced Health Care), was a collaboration of NASA and the Department of Health, Education, and Welfare. It utilized a van equipped with medical equipment and two native paramedics to deliver care to patients with the help of telemedicine. *Id.*

51. *Id.* at 313.

52. Zilis 2012, *supra* note 44 at 196.

environments and is praised for its ability to deliver quality care to developing countries that would not otherwise have access to specialized medicine.⁵³ California applies this benefit of telemedicine by using it to deliver care to rural California residents.⁵⁴ California successfully connects specialized physicians at the University of California Davis Medical Center with general physicians at over 170 clinics and hospitals in rural areas of the state.⁵⁵

V. HOW THE USE OF TELEMEDICINE CAN TRANSFORM
THE CARE DELIVERED BY A NURSE PRACTITIONER DESPITE
SCOPE OF PRACTICE REGULATIONS

Providing nurse practitioners the ability to deliver primary care to patients, with remote supervision of a physician can result in greater access to care, while satisfying a nurse practitioner's scope of practice requirements. Imagine an all-nurse practitioner primary care practice comprised of three to four practitioners who provide traditional primary care services to patients. This facility is able to meet its state's scope of practice requirements because it is connected to a licensed physician who is able to remotely monitor the work of the practitioners at this site. Physicians involved in this type of off-site collaborative agreement are able to monitor several practices, vastly increasing the amount of nurse practitioners delivering care to patients in need. Through use of this model, nurse practitioners will be able to efficiently utilize their skills and in turn

53. See generally Nancy Lukan, *A Piece of the Puzzle: Telemedicine as an Instrument to Facilitate the Improvement of Healthcare in Developing Countries?*, 18 EMORY INT'L. L. REV. 151, 151-189. (2004).

54. Zilis 2012, *supra* note 44, at 203-05.

55. *Id.* at 204. Other successful uses of telemedicine include Illinois' Children's Memorial Hospital's telecardiology department, which delivers the care of its congenital heart specialists to other hospitals in the state which do not have the same access to those types of specialized experts. *Id.* Telemedicine is even successful in state prisons, where physicians can provide care to prisoners with more safety at a lower cost than traditional delivery of care. *Id.*

deliver care efficiently and cost-effectively. This technology driven model will allow nurse practitioners to be supervised by a licensed physician and will conform to the requirements of states' collaborative agreements.

Adopting a system that relies more heavily on nurse practitioners and telemedicine to deliver primary care can help transform the United States' healthcare system into one with enough healthcare providers to adequately serve the current population, and even accommodate the new influx of patients to come. In order to successfully serve the current population seeking primary care services and the additional twenty-four million expected to join the Medicaid program by 2016, the United States should utilize nurse practitioners through telemedicine. This method would help alleviate the primary care physician shortage of 66,000 that is predicted to be in the United States by 2025.⁵⁶ Similar models of care such as retail health clinics have utilized nurse practitioners and telemedicine on a smaller scale and are successful in delivering quality care and expanding access to care.⁵⁷

VI. CONCLUSION

The PPACA will bring many changes to the healthcare system including the addition of millions of individuals that will need primary care services.⁵⁸

56. STEPHEN ISAACS & PAUL JELLINEK, THE PHYSICIANS FOUNDATION, ACCEPT NO SUBSTITUTE: A REPORT ON SCOPE OF PRACTICE, 41 (2012).

57. See generally Kristin E. Schlieter, *Retail Medical Clinics: Increasing Access to Low Cost Medical Care Amongst a Developing Legal Environment*, 19 ANNALS HEALTH L. 527 (2009-2010). Non-traditional "retail medical clinics" are used to provide lower cost care to patients who may not have access to a primary care physician. *Id.* The model utilizes nurse practitioners and physicians assistants to deliver care with the supervision of a licensed physician. *Id.* They provide care to a limited number of common medical conditions in an easy, quick, convenient way by setting up practice in retail stores and providing more "transparent pricing." *Id.*

58. CTR. FOR MEDICARE & MEDICAID SERS., DEP'T OF HEALTH AND HUMAN SERVS., MEDICAID PROGRAM, *supra* note 2, at 11, available at http://www.medicaid.gov/AffordableCareAct/Provisions/Downloads/MedicaidEligibilityFinalRule_Regulatory-Impact-Analysis.pdf

With the growing shortage of primary care physicians, the new Medicaid population will only exacerbate this problem unless new measures are put in place to delivery a greater supply of primary care. In order to counteract this influx of patients, there needs to be a viable solution to the physician shortage to assure a smooth transition into the new health system mandated by the PPACA. The combined use of nurse practitioners and telemedicine is a likely solution.

Changes in states' nurse practitioner scope of practice laws already expanded the profession's healthcare responsibilities.⁵⁹ However, there is a continued restriction on a nurse practitioner's independence in delivering care that prevents the United States from taking full advantage of their education and skills. To alleviate the problems caused by nurse practitioners' lack of independence in the healthcare community, the use of telemedicine can open the door for nurse practitioners to operate their own practices with the remote monitoring of a licensed physician. This healthcare delivery model will help close the primary care access gap and provide quality primary care to patients across the country. The ability for a physician to supervise groups of nurse practitioners off-site allows the amount of primary care being delivered to dramatically increase. For every primary care physician providing care to a set group of patients today, there could be a single physician in his or her place who is supervising several nurse practitioners off-site, monitoring their work and making sure that they are delivering quality care to a much larger group of patients. While expanding the scope of practice for nurse practitioners is ideal, there is great resistance from physician organization and other pro-regulation groups.⁶⁰ Taking complete advantage of the scope of practice for both physicians and

59. This citation is empty

60. See generally AM. TELEMEDICINE ASS'N, *supra* note 22.

nurse practitioners, while successfully providing care to the incoming influx of patients is an accomplishable feat through the use of telemedicine.