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## Telemedicine: Game Changer or Costly Gimmick

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## Telemedicine: Game Changer or Costly Gimmick

# TELEMEDICINE: GAME CHANGER OR COSTLY GIMMICK?

MICHAEL W. KING<sup>†</sup>

## ABSTRACT

Adoption of telehealth and alternative delivery methods is growing and could alter the health care delivery landscape, but it is still in the early stages. While there are risks that telehealth and alternative delivery methods are not worth the investment or may increase overall health care costs, a thoughtful but full adoption has the potential to improve patient access and health outcomes while greatly reducing health care costs. This Article addresses telehealth and whether it can help fundamentally change the game and achieve the “Triple Aim” of improving individual quality of care, improving population health, and lowering health care costs. Next, it addresses basic systemic challenges to achieving widespread adoption: longstanding health care regulatory laws that prevent more innovative delivery systems from expanding beyond their current “experimental” status, and reimbursement systems that undermine broad adoption, preventing expansion beyond limited niches. Finally, it concludes with a short review of pending legislation that would achieve modest reconciliation of the present conflicting regulations and unleash the telehealth industry for rapid growth.

## TABLE OF CONTENTS

INTRODUCTION .....	290
I. U.S. HEALTH CARE: THE PATIENT NEEDS AN INTERVENTION .....	292
A. <i>Poor U.S. Health Despite Highest Spending</i> .....	292
B. <i>Outspending Peer Industrialized Nations by a Wide Margin with Significantly Worse Health Outcomes</i> .....	294
C. <i>Fee-for-Service Medicine: Part of the Challenge</i> .....	296
II. THE FUTURE IS NOW: TELEMEDICINE AS A PRESCRIPTION FOR CHANGING THE GAME .....	299
A. <i>Overview of Telemedicine Technology and Modalities</i> .....	300
B. <i>Favorable Demographic and Technological Landscape for Telemedicine</i> .....	304

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III. OBSTACLES TO TELEMEDICINE: REIMBURSEMENT, LAWYERS, AND REGULATIONS .....	306
<i>A. Payor Fears of Telemedicine as a Budget Buster in     Fee-for-Service Model</i> .....	306
<i>B. State Licensure and Telemedicine: Maintaining Moats     and Walls in a Digital Age</i> .....	312
<i>C. Tort Liability for Telemedicine</i> .....	314
IV. TAILOR-MADE OPPORTUNITIES FOR EXPANDED USE OF TELEMEDICINE: RURAL AMERICA AND LONG-TERM CARE FACILITIES .....	316
<i>A. Rural Hospitals in Critical Condition</i> .....	316
<i>B. Telemedicine Benefits for Skilled Nursing and Long-Term     Care Facilities</i> .....	319
V. PATHS TO MORE EFFICIENT USE OF TELEMEDICINE .....	320
<i>A. System-Wide Transition from Fee-for-Service Medicine     Towards Models Focused on Value and Population Health</i> .....	321
<i>B. Recent Federal Legislation Proposed to Overcome Barriers     to Telemedicine</i> .....	322
CONCLUSION: IMAGINE THE POSSIBILITIES .....	327

## INTRODUCTION

Despite over a decade of reform efforts, health care continues to occupy center stage in Washington and with good reason: the United States substantially outspends peer high-income nations, dedicating almost eighteen percent of gross domestic product (GDP) to health care, yet on any number of statistical measurement—from life expectancy, to birth rates, to chronic disease—the United States achieves inferior health outcomes compared to those same high-income nations. In short, as a nation, America invests heavily in health care, but for a variety of reasons those dollars yield below average results causing significant economic and social challenges.<sup>1</sup>

While wholesale efforts to “repeal and replace” the Affordable Care Act<sup>2</sup> (ACA) have now been deferred in favor of debate over more limited changes that each side wishes to implement, these proposals do not address (1) reforming the current “fee-for-service” model where providers are paid for volume of care rather than quality or outcome, or (2) the use of technology to fundamentally change the delivery of care. Indeed, both the ACA and the Republican proposals for its replacement,

1. See *infra* Part I and Section I.A. for detailed statistical data and discussion.

2. Patient Protection and Affordable Care Act, 42 U.S.C. §§ 8001–18122 (2012). The Patient Protection and Affordable Care Act, often shortened to the Affordable Care Act (ACA), was enacted by the 111th United States Congress and signed into law by President Barack Obama on March 23, 2010. Patient Protection and Affordable Care Act, Pub. L. No. 111-148, 124 Stat. 119 (2010).

the American Health Care Act<sup>3</sup> and its progeny (collectively referred to herein as the AHCA), focus primarily on the reach and cost of providing coverage for health care rather than the delivery. Despite reform efforts, health care expenditures comprise almost one-fifth of the U.S. economy, and health care may well exceed the ability of any one law or branch of government to create or implement coherent reform across the complicated intersection of provider and payer industries and regulatory framework. However, the system must address the exorbitant cost of health care while improving patient health.

What is the best way to trim U.S. health care spending while improving patient experience and health outcomes? The health care industry wrestles with this challenge in a variety of ways: mergers, partnerships, and consolidation; new care delivery models such as bundled payments, population health management, and integrated care systems; information technology; and innovation through new drugs and medical devices. So far, these changes—as well as recent reform efforts—fall short of a cohesive approach. But could the use of telemedicine—delivered via a hybrid of telephonic, electronic mail, and video chat modalities, often supported by remote monitoring devices—and related technology be a game changer, getting patients healthier, faster, and cheaper? Or will the expansion of telemedicine merely lead to increased consumption of health care with limited efficacy, further straining already bloated budgets?

Telemedicine adoption is growing, but it is still in its early stages. Detractors argue that telemedicine is not worth the investment: they question its efficacy and claim it may increase overall health care costs, asserting that patients will utilize telemedicine in addition to, rather than instead of, in-person visits, creating new expenditures without offsetting savings. Proponents believe that a thoughtful, full adoption of telemedicine has the potential to improve patient access and health outcomes while reducing health care costs. Part I of this Article first addresses the current state of the U.S. health care system and health outcomes in America, including challenges with the prevailing fee-for-

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3. The American Health Care Act of 2017, H.R. 1628, 115th Cong. (1st Sess. 2017). The American Health Care Act of 2017 was passed by the United States House of Representatives on May 4, 2017, which sent the bill to the United States Senate for consideration. *Actions Overview H.R. 1628 – 115th Congress (2017-2018)*, CONGRESS.GOV, <https://www.congress.gov/bills/115th-congress/house-bill/1628/actions> (last visited Nov. 19, 2017). This legislation constitutes the first step in a three-stage process to repeal the ACA. *The Three Phases of Repeal and Replace*, SPEAKER PAUL RYAN (Mar. 7, 2017), <https://www.speaker.gov/general/three-phases-repeal-and-replace>. As a budget reconciliation bill and part of the 2017 federal budget process, the AHCA cannot be filibustered in the Senate and, accordingly, can be passed into law by the Senate with a simple majority. *Id.* If passed, the AHCA will repeal the portions of the ACA that fall within the ambit of the federal budget, including the "individual mandate," the employer mandate and a variety of taxes, and would largely reverse the expansion of the federal Medicaid program implemented by the ACA. THE HENRY J. KAISER FAMILY FOUND., SUMMARY OF THE AMERICAN HEALTH CARE ACT 1–2, 5 (2017), <http://files.kff.org/attachment/Proposals-to-Replace-the-Affordable-Care-Act-Summary-of-the-American-Health-Care-Act>.

service model of care delivery. Part II then introduces telemedicine and certain demographic and other factors favoring its broader adoption, followed by an analysis of whether telemedicine can help to fundamentally change the health care system and achieve the “triple aim” of improving individual quality of care, improving population health, and lowering health care costs. Part III of this Article addresses basic concerns about whether telemedicine is a “budget buster,” and addresses systemic challenges to achieving widespread adoption of telemedicine: longstanding health care regulatory laws that prevent innovative delivery systems from expanding beyond their current “experimental” status, and reimbursement systems that undermine broad adoption of telemedicine, preventing expansion beyond limited niches and rural areas. Part IV focuses on two case studies showcasing opportunities for expanded use of telemedicine: rural America and long-term care facilities. Finally, in Part V, the Article recommends how to more effectively deploy telemedicine. Specifically, while more ambitious reforms toward payment models based on value and population health management would benefit telemedicine along with health care more broadly, the passage and implementation of proposed federal legislation would clarify conflicting regulations; reduce obstacles to effective implementation; and unleash the industry for rapid growth.

## I. U.S. HEALTH CARE: THE PATIENT NEEDS AN INTERVENTION

### A. *Poor U.S. Health Despite Highest Spending*

Health care costs in the United States continue to rise with no sign of stopping, which places an ever-increasing burden on federal, state and local governments, as well as businesses and individuals. Over the last fifty years, health care spending as a percentage of GDP increased from 5% to 17.8%.<sup>4</sup> National health expenditures grew 5.8% to \$3.2 trillion in 2015 (equal to \$9,990 per person).<sup>5</sup> Projections suggest that this growth trend will continue through 2025 at an average rate of 5.8% per year, and experts project health care spending growing 1.2 percentage points faster than GDP per year over the same period.<sup>6</sup> As a result, experts anticipate health care expenditures reaching 19.1% of GDP by 2025.<sup>7</sup> For 2016, experts expect total health care spending of nearly \$3.4 trillion, a 4.8%

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4. CTRS. FOR MEDICARE & MEDICAID SERVS., NHE SUMMARY INCLUDING SHARE GDP, CY 1960-2015, <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsHistorical.html> (follow “NHE Summary including share GDP, CY 1960-2015” hyperlink) (last visited Nov. 19, 2017).

5. *Id.*

6. *Id.*

7. *Id.*; see also CTRS. FOR MEDICARE & MEDICAID SERVS., NATIONAL HEALTH EXPENDITURE PROJECTIONS 2016–2025, <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/proj2016.pdf> (last visited Nov. 19, 2017).

increase from 2015, surpassing \$10,000 per person for the first time ever,<sup>8</sup> with projections of average growth of 5.8% from 2015 to 2025.<sup>9</sup>

Governments, employers, and individuals all bear these costs. In the United States, a mix of private and public sources finance health care, with the bulk of Americans under age sixty-five obtaining private health insurance through employers.<sup>10</sup> For 2015, health insurance covered 90.9% of the U.S. population for some portion of the year, with private health insurance covering 67.2%, comprised of employer-based (55.7%) and direct-purchase (16.3%) insurance.<sup>11</sup> Public insurance covered the remainder of the insured population, comprised of Medicaid (19.6%), Medicare (16.3%), and military (4.7%), with some overlap amongst the foregoing private and public categories.<sup>12</sup> Projections anticipate governments across all levels funding almost half of all health care spending by 2025.<sup>13</sup>

Four government health insurance programs consumed one-quarter of the federal budget in 2016 (over \$1 trillion): Medicare, Medicaid, the Children's Health Insurance Program (CHIP), and ACA marketplace subsidies.<sup>14</sup> Almost three-fifths of the over \$1 trillion funded Medicare, which is a federal health insurance program for people ages sixty-five and over and people with certain permanent disabilities.<sup>15</sup> Medicare covers approximately fifty-seven million people, helping pay for hospital and physician visits, prescription drugs, and other acute and post-acute care services.<sup>16</sup> Also, private payors often track Medicare reimbursement and reporting requirements and incorporate them in their own policies.<sup>17</sup> With Medicare playing a central role in funding the health care system,

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8. CTRS. FOR MEDICARE & MEDICAID SERVS., TABLE 1: NATIONAL HEALTH EXPENDITURE AND SELECTED ECONOMIC INDICATORS, LEVELS, AND ANNUAL PERCENT CHANGE: CALENDAR YEARS 2009 - 2025, <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsProjected.html> (follow "NHE Projections 2016-2025 - Tables" hyperlink) (last visited Nov. 19, 2017).

9. Ricardo Alonso-Zaldivar, *\$10,345 Per Person: U.S. Health Care Spending Reaches New Peak*, PBS NEWSHOUR (July 13, 2016 6:20 PM), <http://www.pbs.org/newshour/rundown/new-peak-us-health-care-spending-10345-per-person>.

10. JESSICA C. BARNETT & MARINA S. VORNOVITSKY, U.S. DEP'T OF COMMERCE, HEALTH INSURANCE COVERAGE IN THE UNITED STATES: 2015 1 (2016).

11. *Id.*

12. *Id.*

13. Alonso-Zaldivar, *supra* note 9.

14. *Policy Basics: Where Do Our Federal Tax Dollars Go?*, CTR. ON BUDGET & POL'Y PRIORITIES (Oct. 4, 2017), <https://www.cbpp.org/research/federal-budget/policy-basics-where-do-our-federal-tax-dollars-go>.

15. *Id.*

16. *See id.*

17. Michael Murphy, *Physician Reimbursement: Why It Matters for the Future of American Health Care*, MED. SCRIBE J. (Feb. 18, 2014), <http://scribeamerica.com/blog/physician-reimbursement-why-it-matters-for-the-future-of-american-health-care> ("[T]he private health insurance industry follows the lead of Medicare when it comes to reimbursements . . ."); *see also* David E. Beck & David A. Margolin, MD, *Physician Coding and Reimbursement*, 7 OSCHSNER J. 8, 10 (2007) ("Private payers in non-capitated contracts often set reimbursement based on a percentage of the Medicare fee schedule.").

providers wishing to receive reimbursements from the Medicare program must take Medicare's requirements into account.<sup>18</sup> In 2015, Medicare expenditures constituted one-fifth of total national health spending, twenty-nine percent of retail sales of prescription drugs, twenty-five percent of all hospital care spending, and twenty-three percent of physician services spending.<sup>19</sup> Looking ahead, projections reflect net Medicare spending increasing from \$590 billion in 2017 to \$1.2 trillion in 2027.<sup>20</sup>

While the burdens are shared between public- and private-financing sources, the United States spends more on health care—both per capita and as a share of GDP—than any other country in the world.<sup>21</sup> These costs will continue to rise, further burdening governments, businesses, and individuals.<sup>22</sup> One might expect superior health outcomes from such an expensive health care system, but unfortunately, U.S. health care lags behind other countries on many key health indicators.<sup>23</sup>

### *B. Outspending Peer Industrialized Nations by a Wide Margin with Significantly Worse Health Outcomes*

Notwithstanding outspending its peer industrialized nations by a wide margin, the U.S. health care system produces significantly worse health outcomes.<sup>24</sup> The United States suffers from a number of disturbing

18. See Murphy, *supra* note 17; see also Beck & Margolin, *supra* note 17.

19. JULIETTE CUBANSKI & TRICIA NEUMAN, THE HENRY J. KAISER FAMILY FOUND., THE FACTS ON MEDICARE SPENDING AND FINANCING I (2017), <http://files.kff.org/attachment/Issue-Brief-The-Facts-on-Medicare-Spending-and-Financing>. “Kaiser Family Foundation analysis based on Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, National Health Expenditures Tables, Table 4: National Health Expenditures by Source of Funds and Type of Expenditures: Calendar Years 2009-2015 (December 2016).” *Id.* at 8 n.1.

20. *Id.* at 3.

21. See Melissa Etehad & Kyle Kim, *The U.S. Spends More on Healthcare Than Any Other Country – But Not With Better Health Outcomes*, L.A. TIMES (July 18, 2017, 4:25 PM), <http://www.latimes.com/nation/la-na-healthcare-comparison-20170715-htmistory.html>; see also DAVID SQUIRES & CHLOE ANDERSON, THE COMMONWEALTH FUND, U.S. HEALTH CARE FROM A GLOBAL PERSPECTIVE: SPENDING, USE OF SERVICES, PRICES, AND HEALTH IN 13 COUNTRIES 2 (2015).

22. See CTRS. FOR MEDICARE & MEDICAID SERVS., *supra* note 7.

23. See *infra* Section I.B.

24. See GERARD F. ANDERSON & DAVID A. SQUIRES, THE COMMONWEALTH FUND, MEASURING THE U.S. HEALTH CARE SYSTEM: A CROSS-NATIONAL COMPARISON 1–2 (2010); DAVID SQUIRES, THE COMMONWEALTH FUND, EXPLAINING HIGH HEALTH CARE SPENDING IN THE UNITED STATES: AN INTERNATIONAL COMPARISON OF SUPPLY, UTILIZATION, PRICES, AND QUALITY I (2012); DAVID A. SQUIRES, THE COMMONWEALTH FUND, THE U.S. HEALTH SYSTEM IN PERSPECTIVE: A COMPARISON OF TWELVE INDUSTRIALIZED NATIONS 1–2 (2011); Gerard F. Anderson & Bianca K. Fogner, *Health Spending in OECD Countries: Obtaining Value Per Dollar*, 27 HEALTH AFF. 1718, 1718–19, 1722 (2008); Gerard F. Anderson et al., *Health Spending in OECD Countries in 2004: An Update*, 26 HEALTH AFF. 1481, 1481 (2007); Gerard F. Anderson et al., *Health Spending in the United States and the Rest of the Industrialized World*, 24 HEALTH AFF. 903, 904–05 (2005); Gerard F. Anderson et al., *It's the Prices, Stupid: Why the United States is so Different from Other Countries*, 22 HEALTH AFF. 89, 90, 103 (2003); Gerard Anderson & Peter Sutir Hussey, *Comparing Health System Performance in OECD Countries*, 20 HEALTH AFF. 219, 219, 229 (2001); Gerard F. Anderson et al., *Health Spending and Outcomes: Trends in OECD Countries, 1960–1998*, 19 HEALTH AFF. 150, 150 (2000); Gerard F. Anderson & Jean-Paul Poullier, *Health*

trends with respect to its population health, or lack thereof.<sup>25</sup> With a life expectancy of 78.8 years, the United States suffered from the lowest life expectancy among countries analyzed by the Organization for Economic Cooperation and Development (OECD) in 2013, which had a median life expectancy of 80.5 years.<sup>26</sup> The United States came in last among the countries reviewed for infant mortality with a rate of 6.1 infant deaths per 1,000 births, as compared to a median of 3.5 deaths per 1,000 births.<sup>27</sup> Notably, the United States suffers from higher prevalence of costly and deleterious chronic conditions when compared to analogous countries: a 2014 Commonwealth Fund International Health Policy Survey found that 68% of U.S. adults age sixty-five or older suffered from two or more chronic conditions, as compared to thirty-three percent in the United Kingdom and fifty-six percent in Canada.<sup>28</sup> In concluding a comparative analysis excoriating the U.S. health care system as compared to its peer nations, Ali Velshi of MSNBC said, “Overall, we pay more, for less that’s the consensus of numerous studies comparing health care around the globe.”<sup>29</sup>

Compared to peer high-GDP countries, Americans suffer numerous health disadvantages, with significant consequences for suffering from poorer health.<sup>30</sup> For example, in 2012, over one-third of adults in the United States suffered from obesity, compared to only 14.5% of adults in

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*Spending, Access, and Outcomes: Trends in Industrialized Countries*, 18 HEALTH AFF. 178, 178 (1999); Uwe E. Reinhardt et al., *U.S. Health Care Spending in an International Context*, 23 HEALTH AFF. 10, 10–11 (2004); Uwe E. Reinhardt et al., *Cross-National Comparisons of Health Systems Using OECD Data, 1999*, 21 HEALTH AFF. 169, 169 (2002); David Squires, *The Global Slowdown in Health Care Spending*, 312 J. AM. MED. ASS’N 485, 485 (2016); see also OECD, COUNTRY NOTE: HOW DOES HEALTH SPENDING IN THE UNITED STATES COMPARE? 1–2 (2015).

25. ELIZABETH H. BRADLEY & LAUREN A. TAYLOR, *THE AMERICAN HEALTH CARE PARADOX: WHY SPENDING MORE IS GETTING US LESS* 1–20 (2013).

26. See OECD, *Health at a Glance 2015: How Does the United States Compare?* <https://www.oecd.org/unitedstates/Health-at-a-Glance-2015-Key-Findings-United-States.pdf> (last visited Nov. 19, 2017).

27. BRADLEY & TAYLOR, *supra* note 25, at 82; see also SQUIRES & ANDERSON, *supra* note 21, at 7.

28. ROBIN OSBORN & DONALD MOULDS, *THE COMMONWEALTH FUND 2014 INTERNATIONAL HEALTH POLICY SURVEY OF OLDER ADULTS IN ELEVEN COUNTRIES* 6 (2014); Robin Osborn et al., *International Survey of Older Adults Finds Shortcomings in Access, Coordination, and Patient-Centered Care*, 33 HEALTH AFF. 2247, 2247–49 (2014) (listing chronic conditions as hypertension, high blood pressure, heart disease, diabetes, lung problems, mental health problems, cancer, and/or joint pain/arthritis); see also BRIAN W. WARD ET AL., *CTR. FOR DISEASE CONTROL, MULTIPLE CHRONIC CONDITIONS AMONG US ADULTS: A 2012 UPDATE* (2014), [https://www.cdc.gov/pcd/issues/2014/pdf/13\\_0389.pdf](https://www.cdc.gov/pcd/issues/2014/pdf/13_0389.pdf).

29. Ali Velshi, *For Facts Sake: U.S. Healthcare Lags Others*, NBC NEWS (July 18, 2017, 9:44 AM), <https://www.nbcnews.com/business/velshi-ruhle/facts-sake-u-s-healthcare-lags-others-n782126>.

30. See generally INST. OF MED., *CARE WITHOUT COVERAGE: TOO LITTLE, TOO LATE* (2002) (contrasting the health of insured and uninsured adults in the United States and concluding those without health insurance are sicker and die sooner); Jack Hadley, *Sicker and Poorer—The Consequences of Being Uninsured: A Review of the Research on the Relationship Between Health Insurance, Medical Care Use, Health, Work, and Income*, 60 MED. CARE RES. & REV. 3S, 3S (2003) (concluding that having health insurance or using more medical care would improve the health of the uninsured).

France, 24.7% of adults in the U.K., 14.7% of adults in Germany, and a low of 3.6% of adults in Japan.<sup>31</sup> The Institute of Medicine asserted that lagging health outcomes in the United States in 2012 did not result from economic, social, racial, or ethnic disadvantages; additionally, the Institute concluded that middle-class Americans (who are neither smokers nor obese) still suffer from poorer health than adults located in other high-income countries.<sup>32</sup> The United States spends more on health care than other high-GDP nations, dedicating over seventeen percent of its GDP in 2013 to health care (compared to lower percentages among peer nations and only 10.6% of global GDP).<sup>33</sup> Even though the United States outspends other nations, it continues to underperform on an array of basic health indicators.<sup>34</sup> Poor population health and high spending on health care pose a series of economic and social ills, ranging from diminished quality of life, diminished earnings, lower educational attainment, and financial hardship, such as personal bankruptcy due to health care costs.<sup>35</sup> Linda M. Magno of the Centers for Medicare and Medicaid Services (CMS) concluded:

The existing health care delivery system is fragmented, uncoordinated, unsupportive of both physicians and patients, and ultimately unsustainable. In spite of this, we like to think we have the best care in the world because people come from around the world to be treated here. In particular instances you can find the best care in the world, but this is not true of the system as a whole.<sup>36</sup>

### C. Fee-for-Service Medicine: Part of the Challenge

Fundamentally, fee-for-service medicine refers to the delivery of health care by providers on an incident-by-incident basis, where providers must submit a valid reimbursement code for each incident of health care service rendered in return for a predetermined, prenegotiated reimbursement rate for that particular service.<sup>37</sup> If the fee-for-service system has no code for an activity—such as general counseling—then the provider receives no reimbursement.<sup>38</sup> Advocates for capitation and bundling agree that fee-for-service medicine promotes the wrong trend in

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31. OECD, OBESITY UPDATE 2 (2014), <http://www.oecd.org/health/Obesity-Update-2014.pdf>.

32. Harvey V. Fineberg & Robert M. Hauser, *Forward* to NAT'L RESEARCH COUNCIL & INST. OF MED., U.S. HEALTH IN INTERNATIONAL PERSPECTIVE: SHORTER LIVES, POORER HEALTH at ix (Steven H. Woolf & Laudan Aron eds., 2013); see also SQUIRES & ANDERSON, *supra* note 21, at 9.

33. CTRS. FOR MEDICARE & MEDICAID SERVS., *supra* note 4.

34. See OECD, *supra* note 26.

35. See THE HENRY J. KAISER FAMILY FOUND., SICKER AND POORER: THE CONSEQUENCES OF BEING UNINSURED - EXECUTIVE SUMMARY, 12–14 (2003) (asserting that, among other things, better health would improve annual earnings by about ten to thirty percent (depending on measures and specific health condition) and would increase educational attainment).

36. Linda M. Magno, *Center for Medicare & Medicaid Innovation*, in INST. OF MED., THE ROLE OF TELEMEDICINE IN AN EVOLVING HEALTH CARE ENVIRONMENT: WORKSHOP SUMMARY 37 (2012).

37. Beck & Margolin, *supra* note 17, at 8.

38. See *id.* at 8–9.

health care: providers end up focusing on acute episodes that fit into neat categories of billing codes rather than focusing on maintaining the continuing health and well-being of the patient.<sup>39</sup>

It is instructive to contrast the fee-for-service model with capitation and bundling, which offer alternative models.<sup>40</sup> Examples of capitation are accountable care organizations (ACO) and patient-centered medical homes.<sup>41</sup> The ACO or patient-centered medical home receives one capped-payment for the year from the payor for each person or “life” included in the population that the ACO or medical home manages.<sup>42</sup> On the other hand, bundling is where disparate providers partner together to provide a defined medical service or procedure for one bundled rate.<sup>43</sup> For both capitation and bundling, quality and efficiency are rewarded, since the ACO or bundled provider may keep any savings realized within the defined payment, provided that they specified patient quality metrics.<sup>44</sup> While critics claim these models resemble the health maintenance organizations (HMOs) of the 1990s that will lead to minimal care as the ACO and bundled providers reach for more profit, proponents note that in the ACO and bundled models, the provider controls the decision making rather than the payor.<sup>45</sup> Furthermore, in these models the providers retain risk because readmitted patients or patients with complications erode profits under the capitated or bundled rate.<sup>46</sup> Finally, with dramatic advancements in technology since the HMOs of the 1990s, health care consumers and ratings entities now have access to quality metrics and performance goals that did not exist during the rise and fall of HMOs.<sup>47</sup>

Fee-for-service medicine struggles to provide care coordination—a crucial element to a successful, complex surgery and recovery, and crucial for managing chronic conditions and end-of-life-care.<sup>48</sup> Absent specific billing codes for care coordination efforts, no single physician point of contact emerges from amongst the array of providers (e.g.,

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39. See Brent C. James & Gregory P. Poulson, *The Case for Capitation*, HARV. BUS. REV., July-Aug. 2016, at 102; Michael E. Porter & Robert S. Kaplan, *How to Pay for Health Care*, HARV. BUS. REV., July-Aug. 2016, at 88.

40. The *Harvard Business Review* compared capitation and bundling as the leading alternatives to fee-for-service in its July-August 2016 Issue. James & Poulson, *supra* note 39; Porter & Kapan, *supra* note 39. In *The Case for Capitation*, Brent C. James, MD and Gregory P. Poulson assert the benefits of capitated systems, such as ACOs, while in *How to Pay for Health Care*, Michael E. Porter and Robert S. Kaplan succinctly summarize the arguments for bundling. James & Poulson, *supra*, note 39; Porter & Kapan, *supra*, note 39.

41. James & Poulson, *supra* note 39.

42. *See id.*

43. Porter & Kaplan, *supra* note 39.

44. James & Poulson, *supra* note 39; Porter & Kaplan, *supra* note 39.

45. *See* James & Poulson, *supra* note 39.

46. James & Poulson, *supra* note 39; Porter & Kaplan, *supra* note 39.

47. James & Poulson, *supra* note 39.

48. *See* Edward H. Wagner et al., *Improving Chronic Illness Care: Translating Evidence into Action*, 20 HEALTH AFF. 64, 68 (2001).

anesthesiologists, surgeons, specialists, post-operative care, physical therapy) to coordinate all aspects of care—the relationships, treatments, and medications being meted out by the various players.<sup>49</sup> Care coordination is particularly important for those providers handling the complex needs of patients in chronic care and end-of-life care.<sup>50</sup> Of the substantial health care expenditures in the United States, chronic care and end-of-life care dominate over eighty-six percent of U.S. health care spending.<sup>51</sup> Seven out of ten deaths each year result from chronic diseases.<sup>52</sup> Both chronic care and end-of-life care require care coordination and an ongoing, well-managed relationship with the patient to provide the patient with a more user-friendly experience and to optimize the varying treatments and medications required, as well as resources consumed.<sup>53</sup>

In seeking alternative health care models to fee-for-service medicine, the ACA created a research entity called the CMS Innovation Center.<sup>54</sup> The CMS Innovation Center conducts a limited array of experiments that are referred to as test models or demonstration projects.<sup>55</sup> Projects include (1) Next Generation ACOs—volunteer assembly of doctors, hospitals, and other health care providers and suppliers as a group that offers coordinated care for Medicare patients; (2) Bundled Payments for Care Improvement—a model that applies one bundled payment to an episode of care; and (3) Comprehensive Care for Joint Replacement Model—a model that attempts to efficiently drive higher-quality care for beneficiaries facing hip and knee replacements, which constitute the most common surgical procedure for the population on Medicare.<sup>56</sup>

Another Medicare development with the potential to promote a value-based care model is the Quality Payment Program.<sup>57</sup> Congress created the Quality Payment Program as part of the 2015 Medicare Access and CHIP Reauthorization Act (MACRA) and designed the program to focus on quality over quantity.<sup>58</sup> The Quality Payment

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49. See generally Beck & Margolin, *supra* note 17 (reviewing physician reimbursement from the government and third-party players and physician coding to support reimbursement).

50. Wagner et al., *supra* note 48, at 74.

51. See CTRS. FOR DISEASE CONTROL & PREVENTION, CHRONIC DISEASE OVERVIEW (2017), <https://www.cdc.gov/chronicdisease/overview> (citing JESSIE GERTEIS ET AL., DEP'T OF HEALTH & HUMAN SERVS., AHRQ PUB. NO. 14-0038, MULTIPLE CHRONIC CONDITIONS CHARTBOOK 7 (2014)).

52. *Id.*; CTRS. FOR DISEASE CONTROL & PREVENTION, CHRONIC DISEASE AND HEALTH PROMOTION (2017), <https://www.cdc.gov/chronicdisease/index.htm>.

53. See Wagner et al., *supra* note 48, at 68.

54. See CTRS. FOR MEDICARE & MEDICAID SERVS., ABOUT THE CMS INNOVATION CENTER (2017), <https://innovation.cms.gov/About/index.html>.

55. See *id.*

56. CTRS. FOR MEDICARE & MEDICAID SERVS., INNOVATION MODELS, <https://innovation.cms.gov/initiatives/index.html> (last visited Nov. 21, 2017).

57. Medicare Access and CHIP Reauthorization Act, Pub. L. No. 114-10, 129 Stat. 87 (2015).

58. *Id.* 129 Stat., at 99–100.

Program replaced the Sustainable Growth Rate formula, which is a reimbursement calculation that measures spending on physician services that Medicare used for almost fifteen years to contain spending on physician services.<sup>59</sup> The Quality Payment Program contains two tracks: the Merit-based Incentive Payment System (MIPS), a system of value-based payment adjustments (incentives or penalties) determined by a zero to one-hundred point scale; and the Alternative Payment Model (APM), a program for coordinated and efficient care.<sup>60</sup> MACRA permits the use of telemedicine and remote patient monitoring (RPM) as a care-coordination subcategory of the clinical practice improvement activities performance category under MIPS.<sup>61</sup> Participation in an APM exempts physicians from participating in MIPS and gives physicians a five percent annual payment bonus for those that participate in the program successfully.<sup>62</sup>

## II. THE FUTURE IS NOW: TELEMEDICINE AS A PRESCRIPTION FOR CHANGING THE GAME

Advocates of telemedicine tout seemingly limitless benefits of telemedicine, and their visions of a world with telemedicine often resemble futuristic worlds of science fiction novels:

Imagine that you feel ill at your office and your self-driving car whisks you home. On the way, you use your handy telemedicine phone application to take your vitals and book a telemedicine consultation. Meanwhile, the phone application tells the climate control in your home that you are coming home mid-day, and thus commands the climate control to alter the temperature to your preferred setting, while simultaneously notifying your kitchen that you wish to have a cup of hot tea ready upon arrival. Once home, you initiate your scheduled, secure video chat with your telemedicine physician, who asks you to use your home health device to record and send your updated vital signs. The video chat and data yield a clear verdict, the physician sends a targeted prescription to the electronic pharmacy, and a drone delivers the needed medication to your front door within the hour. To mitigate against a mis-diagnosis, you use your home health device to record and send your vital signs once or twice more throughout the day, which are monitored by a program that notifies a health care professional if your data drifts out of bounds. Having been

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59. Billy Wynne, *May the Era of Medicare's Doc Fix (1997–2015) Rest in Peace. Now What?*, HEALTH AFF. (Apr. 15, 2015), <http://www.healthaffairs.org/doi/10.1377/hblog20150415.046932/full>.

60. *Id.*

61. U.S. DEP'T OF HEALTH & HUMAN SERVS., REPORT TO CONGRESS: E-HEALTH AND TELEMEDICINE 7 (2016).

62. Medicare Access and CHIP Reauthorization Act § 101.

diagnosed and medicated quickly, you arrest your illness early on, knocking out the downward spiral of nasty symptoms and side effects before they accelerate. All of this occurs rapidly, from the comfort of your own home, and you rest comfortably for the rest of the day. After a quick check on your vitals the next morning, you jet off to your morning meeting, operating at close to 100%.

If properly implemented, telemedicine could drive substantial, mutually-beneficial efficiencies. On the most basic level, instead of waiting interminably in a triage setting at a primary care provider's office—or the emergency room—a telemedicine provider could quickly learn of any ailments at the intake stage and direct the patient to a more targeted specialist, without the patient spending unnecessary time in a waiting room. Telemedicine patients can avoid wasted time on the ponderous triage process where those suffering less traumatic maladies wait their turn. Finally, rather than facing triage limited to the medical personnel available on site, telemedicine cuts through costly and time-consuming layers of health care bureaucracy because the proper health care specialist can treat the patient in the comfort of his or her own home, no matter where the patient is located. Additionally, by eliminating triage and intake time, the expedited and targeted nature of telemedicine care delivery has the potential to get the patient back to work faster than the current system.<sup>63</sup> In short, at least for certain medical needs, telemedicine could achieve a previously unthinkable logistical achievement in health care: obtaining the right medical attention at the right time, in the right place, at the right price.

#### *A. Overview of Telemedicine Technology and Modalities*

There are three basic communication categories of telemedicine: (1) synchronous, (2) asynchronous, and (3) remote patient monitoring.<sup>64</sup> Synchronous telemedicine communications occur in real time, where health care providers deliver services to patients through a two-way interactive video conferencing platform.<sup>65</sup> Synchronous telemedicine creates remote consultations (teleconsults) with specialists, primary care physicians, counselors, social workers, and other health care

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63. See JEFF ELTON & ANNE O'RIORDAN, HEALTHCARE DISRUPTED: NEXT GENERATION BUSINESS MODELS AND STRATEGIES 128 (2016) (asserting that a services based approach can deliver outcomes more effectively than a medicine or device alone: "Given the relatively high expense of formal healthcare facilities, this is also how we are going to be able to take care of the sickest patients, keep them healthier, but do it affordably.").

64. See *Telemedicine*, MEDICAID.GOV, <https://www.medicaid.gov/medicaid/benefits/telemed> (last visited Nov. 27, 2017) [hereinafter *Telemedicine*]; see also *About Telemedicine*, AM. TELEMEDICINE ASS'N, <http://www.americantelemed.org/main/about/telehealth-faqs-> (last visited Nov. 27, 2017) [hereinafter *About Telemedicine*].

65. See *Telemedicine*, *supra* note 64; see also *About Telemedicine*, *supra* note 64.

professionals.<sup>66</sup> Examples of synchronous programs include post-appointment or post-operative follow-up; real-time diagnosis and treatment of low-acuity conditions; specialist consultations; tele-stroke, tele-neurology, tele-endocrinology, tele-psychiatry; and real-time centralized patient monitoring.<sup>67</sup>

Asynchronous telemedicine, often called store-and-forward, is where health care providers deliver services to patients after receiving health information from the patient or other health care provider through secured electronic means.<sup>68</sup> Asynchronous communications occur without real-time interaction between the provider and the patient.<sup>69</sup> Rather, patients store images, videos, audio, and clinical data on their computer or mobile device, and the stored information is then securely transmitted to a health care provider for later study and analysis.<sup>70</sup> Examples of asynchronous telemedicine communication include online, second opinion consultations; protocol driven diagnosis and treatment of minor ailments; specialist consultations; eRadiology; ePathology; and tele-dermatology.<sup>71</sup> While basic data collection and monitoring devices already exist, emerging technologies will soon bring sophisticated measuring tools from the hospital to the home.<sup>72</sup> Meanwhile, asynchronous communication routinely occurs today within hospitals and at other care provider locations, with x-ray, MRI, and blood work analyzed by an expert who reviews an image or data remotely and provides feedback to an onsite health care professional.<sup>73</sup>

Remote patient monitoring (RPM) is where a patient uses sensors and monitoring equipment that captures and then transmits data to an

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66. *Telemedicine Series 2016: New Frontiers in Telemedicine, Part I: The Regulatory Landscape*, AHLA, [https://distancelearning.healthlawyers.org/products/telemedicine-series-2016-new-frontiers-in-telemedicine-part-i-the-regulatory-landscape-intermediate/#tab-product\\_tab\\_overview](https://distancelearning.healthlawyers.org/products/telemedicine-series-2016-new-frontiers-in-telemedicine-part-i-the-regulatory-landscape-intermediate/#tab-product_tab_overview) (last visited Nov. 29, 2017) [hereinafter *The Regulatory Landscape*]; see also *About Telemedicine*, *supra* note 64; *Telemedicine*, *supra* note 64.

67. *The Regulatory Landscape*, *supra* note 66; see also *About Telemedicine*, *supra* note 64; *Telemedicine*, *supra* note 64.

68. *The Regulatory Landscape*, *supra* note 66; see also *About Telemedicine*, *supra* note 64; *What is Telemedicine Technology?*, EVISIT, <https://evisit.com/what-is-telemedicine-technology> (last visited Nov. 27, 2017); *Telemedicine*, *supra* note 64.

69. *The Regulatory Landscape*, *supra* note 66; see also *About Telemedicine*, *supra* note 64; *Telemedicine*, *supra* note 64.

70. *The Regulatory Landscape*, *supra* note 66; see also *About Telemedicine*, *supra* note 64; *Telemedicine*, *supra* note 64.

71. *The Regulatory Landscape*, *supra* note 66; see also *About Telemedicine*, *supra* note 64; *Telemedicine*, *supra* note 64.

72. ELTON & O'RIORDAN, *supra* note 63, at 126–28.

73. Rachel Z. Arndt, *Hacked Medical Devices Could Wreak Havoc on Health Systems*, MOD. HEALTHCARE (Jan. 20, 2018), <http://www.modernhealthcare.com/article/20180120/NEWS/180129999>; see also Eric Wicklund, *Telehealth Terminology: 'Store-and-Forward' Has Its Fans - and Critics*, MHEALTHINTELLIGENCE (July 21, 2016), <https://mhealthintelligence.com/news/telehealth-terminology-store-and-forward-has-its-fans-and-critics> (“Advocates say the asynchronous platform gives doctors time to apply best practices to a telehealth visit; critics say it isn't the same as a real-time encounter.”); *Telemedicine Guide*, EVISIT, <https://evisit.com/what-is-telemedicine> (last visited Feb. 13, 2018).

external monitoring center.<sup>74</sup> Health care providers can then use the external monitoring center to monitor the patient remotely.<sup>75</sup> Remote patient monitoring may resemble “Big Brother”—devices clicking away and generating data for review by health care professionals standing by—but it holds the potential to keep the most precarious patients healthier and more compliant, with proper treatment, wellness, and medication protocols.<sup>76</sup> In particular, patients with chronic conditions and those making the transition home following a procedure could benefit from remote patient monitoring. By constantly generating data, remote patient monitoring provides caregivers a more complete picture of the patient’s status.<sup>77</sup>

Studies show telemedicine is effective in assisting with chronic care.<sup>78</sup> Often, patients wait to contact their health care provider until after they feel ill. However, with remote patient monitoring, a health care professional monitoring the patient remotely is able to intervene prior to the point at which a patient becomes seriously ill.<sup>79</sup> Patient thresholds could trigger notifications to health care providers, letting providers know when they should contact patients to see how they are feeling.<sup>80</sup> Finally, researchers can then study the data obtained from the remote patient monitoring systems, enabling them to identify patterns and work to create new treatment modalities and even cures.<sup>81</sup>

Recognizing the potential, many private insurers are incorporating telemedicine technologies in their policies, but only in incremental steps.<sup>82</sup> For example, the model reimbursement policy for Horizon Blue

74. Arndt, *supra* note 73; *see also* *Telemedicine Guide*, *supra* note 73.

75. *Id.*

76. *See, e.g., id.* at 102 (“MS impairs the ability to walk for many people with MS, yet we only access walking ability in the limited time a patient is in the doctor’s office. Consumer devices can measure number of steps, distance walked, and sleep quality on a continuous basis in a person’s home environment. These data could provide potentially important information to supplement office visit exam.”); *see also* Jessica Bartlett, *Study by Biogen, Patients Like Me Suggests Wearables Can Help MS Patients*, BOS. BUS. J. (Apr. 14, 2015, 12:01 AM), <https://www.bizjournals.com/boston/blog/health-care/2015/04/study-by-biogen-patientslikeme-suggests-wearables.html>.

77. *See* ELTON & O’RIORDAN, *supra* note 63, at 102.

78. *See, e.g., Population Health Programs*, IOWA CHRONIC CARE CONSORTIUM, <http://iowacc.com/population-health-programs> (last visited Nov. 27, 2017); *Study Validates Use of Technology-Based Remote Monitoring Platform to Reduce Healthcare Utilization and Costs*, IOWA CHRONIC CARE CONSORTIUM (July 27, 2008), [http://www.iowacc.com/wp-content/themes/iccc/pdf/Congestive\\_Heart\\_Failure.pdf](http://www.iowacc.com/wp-content/themes/iccc/pdf/Congestive_Heart_Failure.pdf).

79. ELTON & O’RIORDAN, *supra* note 63, at 126–28.

80. *See, e.g.,* ELTON & O’RIORDAN, *supra* note 63, at 102 (“MS impairs the ability to walk for many people with MS, yet we only access walking ability in the limited time a patient is in the doctor’s office.”); *see also* Bartlett, *supra* note 76.

81. *See, e.g.,* ELTON & O’RIORDAN, *supra* note 63, at 102 (“Consumer devices can measure number of steps, distance walked, and sleep quality on a continuous basis in a person’s home environment. These data could provide potentially important information to supplement office visit exam.”); *see also* Bartlett, *supra* note 76.

82. *See, e.g., Services on Telemedicine Platforms*, HORIZON BLUE CROSS BLUE SHIELD N.J. (June 27, 2017), <https://www.horizonblue.com/providers/policies-procedures/policies/reimbursement-policies-guidelines/services-on-telemedicine-platforms>; *Policies*

Cross Blue Shield of New Jersey provides the following definition for telemedicine:

The delivery of health care services through the use of . . . secure interactive audio-video or other electronic media for the purpose of diagnosis, consultation, and/or treatment of a patient when the patient is in one location (e.g., “originating site”) and the provider is in any other location (i.e. “distant site”) at the time service is provided.<sup>83</sup>

The policy stipulates that reimbursement for services performed through telemedicine platforms may be available as follows:

Real time (synchronized) services on telemedicine platforms may be eligible for separate reimbursement as part of this Health Plan’s benefits when such services meet all the requirements of a face-to-face consultation or contact between a health care provider and patient. Reimbursement for telemedicine/telehealth services is limited to services involving the use of interactive audio-video or other interactive electronic media for the purpose of diagnosis, consultation or treatment.<sup>84</sup>

Note that the requirement of “interactive” audio-video effectively excludes the use of asynchronous and RPM telemedicine modalities.<sup>85</sup> The policy also includes a common licensure requirement: “In order for services on telemedicine platforms to be eligible for reimbursement as part of this Health Plan’s benefits, the provider shall be appropriately licensed in the state where the patient is physically located at the time of the telemedicine encounter (‘originating site’).”<sup>86</sup>

Similarly, the model reimbursement policy for CareFirst Blue Cross Blue Shield defines telemedicine services as “the use of a combination of interactive audio, video or other electronic media used by a licensed health care provider for the purpose of diagnosis, consultation or treatment consistent with the provider’s scope of practice.”<sup>87</sup> It offers the following health care provider guidelines:

Services for diagnosis, consultation or treatment provided through telemedicine must meet all the requirements of a face-to-face consultation or contact between a licensed health care provider and patient consistent with the provider’s scope of practice for services

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*and Procedures*, CAREFIRST BLUECROSS BLUESHIELD, <https://provider.carefirst.com/carefirst-resources/provider/pdf/professional-provider-manual-policies-pm0010.pdf> (last visited Oct. 14, 2017) (referencing policy on telemedicine); *Medical Policy: Section 2.01.072 Telemedicine (Unified Communications)*, CAREFIRST BLUECROSS BLUESHIELD (Feb. 21, 2017), <http://notesnet.carefirst.com/Ecommerce/medicalpolicy.nsf/vwWebTableX/BDFB7E8F61E5816E8525813F00588C00?OpenDocument> [hereinafter *Unified Communications*].

83. *Services on Telemedicine Platforms*, *supra* note 82.

84. *Id.*

85. *See id.*

86. *Id.*

87. *Policies and Procedures*, *supra* note 82; *see also Unified Communications*, *supra* note 82.

appropriately provided through telemedicine services. Diagnostic, consultative and treatment telemedicine services should be reported with the appropriate [billing] code and the [service code] (. . . via a real-time interactive audio and video telecommunication system[s]).<sup>88</sup>

Once again, the interactive requirement essentially precludes the use of asynchronous and RPM telemedicine modalities.<sup>89</sup> In short, private insurers have begun slowly acknowledging available telemedicine technologies,<sup>90</sup> recognizing that telemedicine technologies provide ample opportunities to disrupt the current model of delivering health care, with potential for significant improvements to patient health and access at a lower cost. However, the policy's requirements for interactive media, its restrictions on types of medicine acceptable for practice via telemedicine, and its prohibition on telemedicine patients outside the physician's state of licensure reveal that even payors open to telemedicine maintain structural obstacles to widespread adoption.<sup>91</sup>

#### *B. Favorable Demographic and Technological Landscape for Telemedicine*

The potential benefits of telemedicine include efficient, cost-effective patient care; increased opportunities for collaboration between providers to improve patient care; access to specialty and sub-specialty care that extends the reach of the hospital, provider, or both; and access to care for patients in underserved locations, rural locations, or both.<sup>92</sup> Telemedicine may enhance patient satisfaction and assist in cost-or-penalty avoidance in value-based-purchasing models that are accountable for patient and population health outcomes, such as accountable care organizations.<sup>93</sup>

Certain industry and demographic elements create a significant opportunity—or a pressing need—for increased adoption of telemedicine. U.S. health care continues a slow transition from fee-for-service, volume-based payments to pay-for-performance systems that take into account outcomes and quality or population-health-management systems, such as accountable care organizations.<sup>94</sup> These payment systems emphasize value and results rather than volume,

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88. *Unified Communications*, *supra* note 82. Note that the policy also states that “[u]tilization review may be performed. Documentation in the medical record must support the services rendered.” *Id.*

89. *See id.*

90. *See id.*

91. *See id.*

92. *See infra* Part IV.

93. *See infra* Part V.

94. *See* Thomas S. Nesbitt, *Reaction in Discussion, in THE ROLE OF TELEMEDICINE IN AN EVOLVING HEALTH CARE ENVIRONMENT: WORKSHOP SUMMARY*, *supra* note 36, at 38–39 (discussing response of Linda M. Magno, M.P.A., to a participant in an open discussion regarding her presentation on Medicaid & Medicare Innovation).

perhaps creating more incentive to adopt an alternative method of delivery.<sup>95</sup> With increased technical capabilities, the availability of more accessible technologies, and the rise of patients as consumers, demand will increase for convenient, in-home health care modalities.<sup>96</sup> In short, the public increasingly accepts telemedicine as an efficient and cost-effective care delivery vehicle, particularly as compared to emergency rooms with long wait times and costly services, and urgent care units with only limited expertise available.<sup>97</sup>

Other potentially favorable factors for telemedicine include U.S. demographics: absent other reforms that bend the demand curve, experts anticipate an aging population, growing awareness of medical needs, and questionable population health increasing the demand for health care.<sup>98</sup> Demographers project the U.S. population exceeding 359 million by 2030, with one in five people sixty-five years of age or older.<sup>99</sup> With those sixty-five and over projected to grow by fifty-five percent from 2015 to 2030, combined with the overall poor health of American citizens, demand for medical services will continue to grow.<sup>100</sup> Chronic conditions—such as hypertension, heart disease, diabetes, lung problems, mental health problems, cancer, and joint pain, arthritis, or both—afflict approximately half of the American population.<sup>101</sup> One in four Americans suffer from two chronic conditions, and seven out of ten Americans die as a result of chronic conditions, with heart disease and cancer causing almost forty-six percent of all deaths.<sup>102</sup>

There is also a compelling need for improvements with respect to obesity and smoking cessation, both of which have numerous secondary health effects.<sup>103</sup> Meanwhile, although opinions differ, experts project fewer physicians despite increasing needs, with a projected shortfall of

95. See *id.* at 39–40.

96. See ACCENTURE, ACCENTURE TECHNOLOGY VISION 2015 at 7 (2015), [https://www.accenture.com/t20170707T141710Z\\_w\\_/us-en/\\_acnmedia/Accenture/Conversion-Assets/Microsites/Documents11/Accenture-Technology-Vision-2015.pdf](https://www.accenture.com/t20170707T141710Z_w_/us-en/_acnmedia/Accenture/Conversion-Assets/Microsites/Documents11/Accenture-Technology-Vision-2015.pdf); see also ELTON & O'RIORDAN, *supra* note 63, at 27.

97. See ACCENTURE, *supra* note 96, at 7, 39; see also ELTON & RIORDAN, *supra* note 63, at 27.

98. See *New Research Confirms Looming Physician Shortage*, ASS'N AM. MED. COLLS. (Apr. 5, 2016), [https://www.aamc.org/newsroom/newsreleases/458074/2016\\_workforce\\_projections\\_04052016.html](https://www.aamc.org/newsroom/newsreleases/458074/2016_workforce_projections_04052016.html) [hereinafter *Looming Physician Shortage*].

99. SANDRA L. COLBY & JENNIFER M. ORTMAN, U.S. DEP'T OF COMMERCE, P25-1143, PROJECTIONS OF THE SIZE AND COMPOSITION OF THE U.S. POPULATION: 2014 TO 2060, 1, 4–6 (2015).

100. See *Looming Physician Shortage*, *supra* note 98.

101. See OSBORN & MOULDS, *supra* note 28, at 6; see also CTRS. FOR DISEASE CONTROL & PREVENTION, *supra* note 51; WARD ET AL., *supra* note 28.

102. See CTRS. FOR DISEASE CONTROL & PREVENTION, *supra* note 51; see also OSBORN & MOULDS, *supra* note 28, at 6; WARD ET AL., *supra* note 28.

103. See CTRS. FOR DISEASE CONTROL & PREVENTION, *supra* note 51; see also OSBORN & MOULDS, *supra* note 28, at 6; WARD ET AL., *supra* note 28.

almost 100,000 physicians by 2025 and similar shortages for nurses.<sup>104</sup> And, if the United States wishes to provide underserved populations access to health care, 96,000 doctors would be needed immediately to satisfy that particular demand.<sup>105</sup> Driven by increased costs and post-acute care strategies designed to reduce re-admission, health care payment systems with emphasis on value and outcome should lead to increased adoption of telemedicine technology.<sup>106</sup> Finally, other countries adopting telemedicine more quickly than the United States offer useful insight for best practices in technology, tactics, and payment systems.<sup>107</sup>

### III. OBSTACLES TO TELEMEDICINE: REIMBURSEMENT, LAWYERS, AND REGULATIONS

With rapid technological improvements and all of the potential benefits, one would think that the health care industry would have embraced telemedicine as the standard of care. However, that has not occurred due to three primary obstacles: reimbursement, lawyers, and regulations.

With broadening access to technology that bridges the digital divide, increase in awareness of the benefits, demographic trends pushing for a greater demand, and insufficient numbers of physicians and health care professionals to meet that demand, the United States can anticipate an uptick in the use of telemedicine. Yet, widespread adoption requires elemental change.

Challenges to the efficient and effective deployment of telemedicine include tort liability; increased malpractice insurance rates for physicians practicing in telemedicine, payment and reimbursement hurdles; skepticism regarding efficacy; state laws limiting telemedicine and prohibiting prescriptions of controlled substances; and difficulty practicing medicine across state lines. Additionally, bigger, system-wide issues still require reform, which poses special challenges for telemedicine—lack of integration, coordination, and alignment among disparate health care providers, limiting the potential reach of a telemedicine engagement.

#### *A. Payor Fears of Telemedicine as a Budget Buster in Fee-for-Service Model*

While all payors require some degree of persuasion to expand reimbursement for telemedicine, the fee-for-service system itself is the greatest hurdle. A persistent concern about telemedicine in a fee-for-

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104. *Looming Physician Shortage*, *supra* note 98.

105. *See id.*

106. *See* ELTON & RIORDAN, *supra* note 63, at 26–28, 57.

107. *Id.* at 17–20 (stating examples of Italy, Sweden, United Kingdom, and Spain, among others).

service reimbursement model impedes the adoption of telemedicine by CMS and other payors because they fear that patient-consumers will simply use telemedicine in addition to—rather than instead of—existing consumption of in-person health care services, substantially driving costs up.<sup>108</sup> Successful adoption requires payment incentives encouraging and rewarding appropriate use, and the fee-for-service system seems ill-equipped to handle telemedicine:

It would be tempting to codify every distinct activity that primary care physicians perform and then pay fee-for-service for them. Unfortunately, “for every complex problem, there is a solution that is simple, neat, and wrong” (H.L. Mencken). Consider the relatively simple approach of payment for “asynchronous communication” like e-mails. Although there have been some payer experiments in reimbursing for e-mail consultations as alternatives to an office visit, payors correctly resist requests to reimburse [fee-for-service] for routine e-mails and phone calls. The transaction costs of submitting and processing legitimate claims would likely exceed the value of the actual reimbursement. In addition, there are daunting concerns about verification of such communications (consider the fraud potential for an electronic billing system linked to e-mail authoring software). Finally, there would be a serious moral hazard problem with [fee-for-service] payment for e-mails; one doubts the long-term viability of a [fee-for-service] payment system in which patients and doctors are text messaging back and forth while the third-party payer pays the bill for each interaction.<sup>109</sup>

Even where fee-for-service payment systems reimburse for telemedicine consultations, those interactions typically receive lower reimbursement rates than procedures, and physicians must make rational economic choices with how they allocate their limited work time.<sup>110</sup> In recent years, some states expanded access to telemedicine under state Medicaid provisions and enacted or considered “parity laws” requiring that telemedicine services be reimbursed by private payors in a manner comparable to brick-and-mortar health care, yet reimbursement for telemedicine in the fee-for-service model remains challenging.<sup>111</sup> Meanwhile, during that same period, uptake of telemedicine increased rapidly in capitated systems, providing a clear contrast.<sup>112</sup>

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108. See INST. OF MED, *supra* note 36, at 18.

109. Robert A. Berenson & Eugene C. Rich, *US Approaches to Physician Payment: The Deconstruction of Primary Care*, 25 J. GEN. INTERNAL MED. 613, 614–15 (2010) (citing Robert A. Berenson & Jane Horvath, *Confronting the Barriers to Chronic Care Management in Medicare*, HEALTH AFF. 37, 39 (2003)).

110. Karen E. Edison, *Traditional Payment Models and Regulation*, in THE ROLE OF TELEMEDICINE IN AN EVOLVING HEALTH CARE ENVIRONMENT: WORKSHOP SUMMARY, *supra* note 36, at 34, 35.

111. See, for example, Part V for discussion of federal and state legislation.

112. See INST. OF MED, *supra* note 36, at 39 (referencing increasing Telemedicine use in both the Kaiser system and the Veterans Administration).

Indeed, with the exception of certain experimental programs that are already outside of fee-for-service, telemedicine continues to suffer from disfavored status with CMS, severely limiting opportunities for telemedicine reimbursement through Medicare, and thus results in a low percentage of beneficiaries utilizing telemedicine.<sup>113</sup> Specifically, the Department of Health and Human Services (HHS) questioned the clinical efficacy of telemedicine for many medical conditions, citing privacy and security concerns, and continues to limit telemedicine benefits to rural beneficiaries in areas with limited health care professionals, missing an opportunity for telemedicine use in urban settings.<sup>114</sup> While HHS references efficacy and privacy concerns for limiting use of telemedicine to rural locations, the core concerns may be more elemental, and with substantial budgetary implications: (1) notions that telemedicine will enable providers to engage in fraud and abuse; or (2) fear of a net increase in costs to the Medicare program that could result from the expansion of telemedicine benefits (assuming patients will use telemedicine in addition to, rather than instead of, existing health care encounters, ratcheting up costs).<sup>115</sup> Finally, consider the oft quoted fear that telemedicine will cost the health care system more money if people seek more health care services once those services are more accessible.<sup>116</sup> This fear does not take into account long-term savings that result from people getting healthier, let alone the indirect benefits from a healthier population. These long-term preventative care savings do not “score” as well with the Congressional Budget Office (CBO), as the government incurs expenditures immediately, while the CBO scoring struggles to credit the potential benefits of improved health, fewer acute health care episodes, and reductions in chronic maladies.<sup>117</sup>

The Medicare, Medicaid, and State Children’s Health Insurance Program Benefits Improvement and Protection Act of 2000 included severe restraints on telemedicine reimbursement in the Medicare program, and no meaningful expansion of Medicare for telemedicine has

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113. U.S. GOV’T ACCOUNTABILITY OFFICE, GAO-17-365, HEALTH CARE: TELEHEALTH AND REMOTE PATIENT MONITORING USE IN MEDICARE AND SELECTED FEDERAL PROGRAMS 14 (2017).

114. Notably, significant telemedicine coverage exists in certain other government programs (i.e., Veterans Administration and Medicaid) and telemedicine and data monitoring is included in health care reform initiatives (i.e., Center for Medicare and Medicaid Innovation (CMMI)), and the Medicare Shared Savings Program promotes the use of telemedicine. By and large, these examples are capitated systems that have effectively incorporated telemedicine as a useful tool to maintain population health and prevent inefficient use of care.

115. See Jonathon Linkous, *Overview of Common Challenges, in THE ROLE OF TELEMEDICINE IN AN EVOLVING HEALTH CARE ENVIRONMENT: WORKSHOP SUMMARY*, *supra* note 36, at 17, 18.

116. See *id.*

117. *Reps. DeGette and Burgess Introduce Legislation on to Modernize CBO Scoring*, DEGETTE.HOUSE.GOV (Oct. 1, 2015), <https://degette.house.gov/media-center/press-releases/rep-degette-and-burgess-introduce-legislation-on-to-modernize-cbo> (“Congresswoman Diana DeGette (D-CO) and Congressman Michael C. Burgess, M.D. (R-TX) . . . introduced bipartisan legislation, H.R. 3660, that would direct the Congressional Budget Office (CBO) to analyze scientific medical data to provide information on the savings of preventive health initiatives beyond the traditional 10-year scoring window.”).

occurred since, leaving the program out of step with current, generally accepted uses of telemedicine.<sup>118</sup> Medicare limits telemedicine applications to mostly rural beneficiaries conducting telemedicine from certain health care facilities, with only a limited number of services covered.<sup>119</sup> Specifically, Medicare severely limits reimbursement for telemedicine through a triad of restrictions: type of site where the patient originates telemedicine contact from (referred to as the “originating site”); geography of the patient; and types of services that may be provided via telemedicine.<sup>120</sup> Medicare only permits live, interactive audio, video, or both, offering no coverage for asynchronous or remote patient monitoring telemedicine.<sup>121</sup> Presently, to conduct telemedicine activities, Medicare requires that the patient visit a qualifying medical facility in person.<sup>122</sup> Hospitals, skilled nursing facilities, physician offices, rural health clinics, and community mental health centers qualify as originating sites.<sup>123</sup>

As a further constraint on telemedicine, subject to limited waivers, Medicare limits originating sites to locations in rural communities (counties that are not included in a metropolitan statistical area) with a shortage of health care professionals or an entity that participates in a federal telemedicine demonstration project approved by, or receiving funding from, the Secretary of Health and Human Services as of December 31, 2000.<sup>124</sup> Finally, in terms of coverage for professional fees, Medicare only covers telemedicine for certain activities, such as end-stage renal dialysis related services; individual and group kidney disease education; smoking cessation; individual psychotherapy; psychiatric diagnostic interview examination; depression screening; intensive behavioral therapy for cardiovascular disease; and annual wellness visits.<sup>125</sup>

With such severe limitations on the type and geographic location of originating sites and the limited services approved for reimbursement, during calendar year 2014, only 0.2% of Medicare Part B fee-for-service beneficiaries utilized telemedicine services, and Medicare paid 175,000 telemedicine claims totaling approximately \$14 million.<sup>126</sup> This constituted under 0.01% of the \$257 billion annual Medicare funds spent on Part B services (physician and outpatient hospital services) in fiscal

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118. Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000, Pub. L. 106-554, 114 Stat. 2763 (2000).

119. *Id.* § 223.

120. *Id.*

121. *Id.*

122. *Id.* § 223, 114 Stat. at 2763A-488 to 89.

123. *Id.* § 223, 114 Stat. at 2763A-489.

124. *Id.*

125. DEP'T OF HEALTH & HUMAN SERVS., ICN 901705, TELEHEALTH SERVICE 3-5 (2016).

126. MEDICARE PAYMENT ADVISORY COMM'N, REPORT TO THE CONGRESS: MEDICARE AND THE HEALTH CARE DELIVERY SYSTEM 239-40 (2016) (stating numbers based on Medicare telehealth claims for calendar year 2014).

year 2014.<sup>127</sup> However, upon further scrutiny, these anemic Medicare telemedicine utilization figures are even worse: fifty-five percent of the claims lacked an originating site, indicating that many of these services likely occurred in patient homes, thus in violation of Medicare's originating site requirement.<sup>128</sup> Further, forty-four percent of claims without originating sites tied to beneficiaries located in urban areas, violating Medicare's geographic restrictions on originating sites.<sup>129</sup> When asked by the Government Accountability Office (GAO) about these findings in January 2017, CMS officials indicated they would "take action on [the] findings as warranted" and "determine and complete appropriate corrective actions."<sup>130</sup> In short, even with a large percentage of Medicare telemedicine claims flagrantly violating the originating site and geography requirements, and even with corrective action from CMS, telemedicine only reached a paltry 0.2% of Medicare beneficiaries and less than 0.01% of Medicare dollars in 2014.<sup>131</sup>

MACRA included a provision requiring that the GAO study telemedicine and remote patient monitoring.<sup>132</sup> The GAO published a report to congressional committees in April 2017 entitled "*Telemedicine and Remote Patient Monitoring Use in Medicare and Selected Federal Programs.*"<sup>133</sup> Among other things, the study noted:

While Medicare currently uses tele[medicine] primarily in rural areas or regions designated as having a shortage of health professionals, in the future[,] emerging payment and delivery models may change the extent to which tele[medicine] and remote patient monitoring are available and used by Medicare beneficiaries and providers in other areas. . . . CMS . . . oversees Medicare payments for telemedicine services. According to the Congressional Budget Office, the financial impact of expanding telem[edicine] and remote patient monitoring in Medicare is difficult to predict—it may reduce federal spending if used in place of face-to-face visits, but it may increase federal spending if used in addition to these visits.<sup>134</sup>

Accordingly, the tepid expansion by CMS of telemedicine opportunities through limited waivers for value-based demonstration models aligns with its skepticism of telemedicine.<sup>135</sup> Value-based models reward outcomes rather than reimbursing each patient interaction, better

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127. U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 113, at 18 n.39.

128. *Id.* at 19.

129. *Id.* at 20.

130. *Id.* at 20.

131. *See id.* at 14, 18 n.39.

132. Medicare Access and CHIP Reauthorization Act of 2015, Pub. L. No. 114-10, § 106, 129 Stat. 87, 140-42 (2015).

133. U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 113, at 1.

134. *Id.* at 2.

135. *See Patient Protection and Affordable Care Act*, Pub. L. No. 111-148, §§ 3021, 10306, 124 Stat. 119, 389, 939 (to be codified at 42 U.S.C. § 1315a).

aligning the economic incentives around consumption of health care services.<sup>136</sup> Although CMS continues to express concerns about telemedicine as a “budget buster,” it is now slightly opening the door for telemedicine, allowing its use in value-based demonstration models.<sup>137</sup> Health care experts believe that deployment of telemedicine in these alternative, value-based models that involve accountability for managing the health of a population, such as ACOs, or managing the health of the person following a procedure, such as bundling, could mitigate concerns about overuse.<sup>138</sup> APMs may cover telemedicine and remote patient monitoring, even if those services are not usually reimbursed under Medicare.<sup>139</sup> Finally, while Medicaid offers somewhat greater flexibility than Medicare for telemedicine, Medicaid faces other challenges, with its state-by-state patchwork of differing requirements.<sup>140</sup>

In a practical approach that acknowledges the challenging reality of obtaining reimbursement for fee-for-service and the growing appetite of patient-consumers, some telemedicine providers boldly offer flat-rate monthly subscriptions per member.<sup>141</sup> In what essentially amounts to concierge medicine, the subscription buys the patient immediate access and convenience.<sup>142</sup> Flat-rate monthly telemedicine subscriptions play a complimentary role in a fee-for-service based model. In addition to individuals seeking this experience, self-insured employers as well as non-self-insured employers may subscribe, pursuing improvement in the health, and therefore, the effectiveness, of their workforce, and potentially driving lower insurance premiums for that healthier workforce.

In a move that may not bode well for telemedicine providers offering unlimited consults for a fixed month fee, in May 2017, UnitedHealth Group announced that it would wind down its health plan experiment that provided unlimited primary and behavioral care at no cost to the patient through its subsidiary, Harken Health.<sup>143</sup> In a November 2015 interview, the CEO of Harken Health proclaimed that “giving people unfettered access to relationship-based primary care will provide better counsel and advice and get members to use the broader health care system more judiciously . . . [It is] reasonably proven that if

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136. Compare James & Poulson, *supra* note 39 (asserting the benefits of capitated systems, such as ACOs), with Porter & Kapan, *supra* note 39 (summarizing the arguments for bundling).

137. U.S. DEP'T OF HEALTH AND HUMAN SERVS., REPORT TO CONGRESS: E-HEALTH AND TELEMEDICINE 3, 6–7 (2016).

138. See *id.* at 3, 7.

139. *Id.*

140. See, e.g., INST. OF MED., *supra* note 36, at 40–41.

141. See, e.g., *Membership Pricing Options*, HIPPOHEALTH, <http://www.hippohealth.com/pricing> (last visited Nov. 23, 2017).

142. See, e.g., *id.*

143. Harris Meyer, *UnitedHealth Pulls Plug on Plan Testing No-Charge Primary Care*, MOD. HEALTHCARE (May 15, 2017), <http://www.modernhealthcare.com/article/20170515/NEWS/170519893>.

you overinvest in primary care, you have lower downstream cost in the system.”<sup>144</sup> Value-based health care experts criticized Harken’s model from the outset as poorly designed, arguing that it ignored a need for differentiation in the level of preventive services required by members with chronic issues and young, healthy members.<sup>145</sup> Those who are already skeptical of telemedicine’s efficacy may point to Harken’s failure as more evidence not to pursue telemedicine. Critics noted the experimental aspect of unlimited, low cost access to care as Harken’s demise, with this scenario posing concerns for telemedicine enabling easy access to care in the comfort of the patient’s own home.<sup>146</sup>

The continued prominence of fee-for-service undermines adoption of telemedicine, notwithstanding its potential. Telemedicine providers must acknowledge the risk of overconsumption and address fears of daunting demands and draining time and money if not handled properly. Providers may address these concerns through appropriate intake and screening procedures, and by including provisions in the terms and conditions of its policies for use of telemedicine services to limit obligations in the event of inappropriate or excessive demands. Thus, fears of driving up costs through overuse of telemedicine services may be addressed through alternative payment models, as well as proper patient case management.<sup>147</sup>

### *B. State Licensure and Telemedicine: Maintaining Moats and Walls in a Digital Age*

Traditionally, establishing a physician–patient relationship requires at least an initial in-person encounter.<sup>148</sup> The rise in use of telemedicine offers great potential, but it raises interesting and perhaps daunting questions regarding traditional views, such as implications for payment and reimbursement systems, as well as legal liability. When do physicians’ telemedicine activities constitute consulting? Can a physician make a diagnosis via telemedicine? What constitutes a physician treating a patient? Further complicating matters, some independent physicians and small providers perceive telemedicine as a threat.<sup>149</sup> Those providers

144. *Id.*

145. *Id.*

146. *See id.*; see also Sam Schaust, *Experimental UnitedHealthcare Subsidiary Harken Health Closing Down*, TWIN CITIES BUS. (May 16, 2017), <http://tcbmag.com/news/articles/2017/may/experimental-unitedhealthcare-subsidiary-harken-he>.

147. *See, e.g.*, U.S. DEP’T OF HEALTH AND HUMAN SERVS., *supra* note 137, at 3, 7.

148. Numerous state medical boards have codified this as a prerequisite to a physician-patient relationship. *See, e.g.*, Erica Teichert, *Texas Drops Appeal Against Teladoc Lawsuit*, MOD. HEALTHCARE (Oct. 18, 2016), <http://www.modernhealthcare.com/article/20161018/NEWS/161019900>.

149. Edison, *supra* note 110, at 34.

fear large networks displacing them,<sup>150</sup> and raise concerns about what telemedicine could mean for physician compensation.<sup>151</sup>

Further complicating the implementation of telemedicine, state licensure rules and requirements do not contemplate the practice of telemedicine since it transcends geographic boundaries.<sup>152</sup> Much like the difficulty in taxation of goods and services sold on the internet, the very aspects of telemedicine that offer potential to efficiently bring health care to areas in need frustrate the notion of state-by-state governance and regulation.<sup>153</sup> Health care professionals practicing telemedicine are generally subject to licensure rules of (1) the state(s) in which their patients are physically located and (2) the state(s) in which they are practicing.<sup>154</sup> Consequently, telemedicine providers must be admitted to practice in the state in which they practice and in the states where their patients are located.<sup>155</sup> Furthermore, a multistate telemedicine program must comply with a wide array of disparate state regulations for its operations.<sup>156</sup>

By way of example, citing a desire to ensure quality of care, numerous state medical boards mandate an in-person consult prior to beginning telemedicine services.<sup>157</sup> Specifically, the Texas Medical Board proposed a rule requiring that either (1) “physicians to meet with patients in person before . . . treat[ing] them remotely,” or (2) another health care provider be physically present at any initial telemedicine consultation to create a physician–patient relationship.<sup>158</sup> Teladoc—a Texas-based telemedicine company—asserted that the rules were anticompetitive and undermined access to care, claiming the Texas

150. *Id.*

151. INST. OF MED., *supra* note 36, at 41.

152. In the United States, physician licensure must be obtained on a state by state basis, and physicians cannot practice outside of their state(s) of licensure. *See Obtaining a Medical License*, AM. MED. ASS’N, <https://www.ama-assn.org/education/obtaining-medical-license> (last visited Nov. 23, 2017). *But see The IMLC*, INTERSTATE MED. LICENSURE COMPACT, <http://www.imlcc.org> (last visited Nov. 23, 2017) (“The Interstate Medical Licensure Compact offers a new, voluntary expedited pathway to licensure for qualified physicians who wish to practice in multiple states.”).

153. *See The IMLC*, *supra* note 152, at 41 (summarizing Manish N. Oza’s, M.D., Wellpoint Comprehensive Health Solution and Jeff Stensland’s, Ph.D., MedPAC comments regarding increased costs of telehealth).

154. *See Obtaining a Medical License*, *supra* note 152.

155. Note that at least one initiative addressing these complications exists: the Interstate Medical Licensure Compact, an agreement between 22 states and the 29 Medical and Osteopathic Boards in those states, with the mission of:

[I]ncreas[ing] access to health care for patients in underserved or rural areas and allowing them to more easily connect with medical experts through the use of telemedicine technologies. While making it easier for physicians to obtain licenses to practice in multiple states, the Compact strengthens public protection by enhancing the ability of states to share investigative and disciplinary information.

*The IMLC*, *supra* note 152.

156. *See Obtaining a Medical License*, *supra* note 152. *But see The IMLC*, *supra* note 152.

157. *See Linkous*, *supra* note 115, at 18.

158. *See, e.g., Teichert*, *supra* note 148.

Medical Board violated the federal antitrust laws requiring the state to supervise the creation of rules impacting competition.<sup>159</sup> Even as the Texas Medical Board withdrew its appeal before the U.S. Court of Appeals for the Fifth Circuit, its interim executive director said that “[t]he regulation of medicine is a right reserved for the states, and the board stands behind and will seek future vindication of its state-action immunity for performing the duties assigned it by the Texas legislature.”<sup>160</sup> All of this came as Texas suffered a profound physician shortage, which bordered on a public health crisis: thirty-five Texas counties lacked even one practicing physician.<sup>161</sup> While states justifiably cling to their right to regulate the practice of medicine, unnecessary restrictions on physicians’ ability to engage in telemedicine is a disservice to the state and its residents who could benefit from lower costs and improved access to care.

In late May 2017, the Texas legislature finally resolved the standoff between the Texas Medical Board and Teladoc, passing legislation allowing for a patient–physician relationship without an initial in-person visit.<sup>162</sup> Notably, in addition to the Teladoc litigation against the Texas Medical Board, the Board was under Federal Trade Commission (FTC) investigation for possible antitrust violations based on allegations that its position restricted the practice of telemedicine in Texas.<sup>163</sup> However, the FTC announced closure of its investigation shortly after passage of this new telemedicine law, which overrode the Texas Medical Board’s prior restrictions on telemedicine.<sup>164</sup>

### *C. Tort Liability for Telemedicine*

Tort liability poses risk in telemedicine just as it does in traditional health care settings, plus some degree of additional risk due to remoteness and technology.<sup>165</sup> Joseph P. McMeniman and Paul A. Greve, Jr. summarize the most prevalent claims in telemedicine in their article, *Telemedicine Law and Liability*.<sup>166</sup> They note that the prevalence of tele-radiology has led to a number of claims, including:

Incorrect interpretations of diagnostic images of various types by a radiologist, from home or some other remote location; [m]iscommunication over the timeliness of the required reading: e.g.

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159. *Id.*

160. *Id.*

161. *Id.*

162. James S. Tam, *Momentum Continues in Telemedicine Legislative Activity with Passage of Texas Law*, TECHHEALTH PERS. (June 26, 2017), <https://www.techhealthperspectives.com/2017/06/26/momentum-continues-in-telehealth-legislative-activity-with-passage-of-texas-law>.

163. *Id.*

164. *Id.*

165. Joseph P. McMeniman & Paul A. Greve, Jr., *Telemedicine Law and Liability: 2015*, PROF’L LIABILITY UNDERWRITING SOC’Y J., Sept. 2015, at 13.

166. *Id.* at 12–13.

a “stat” reading was requested but not provided; [f]ailure to communicate presenting symptoms to a remote, examining neuro-radiologist; failure to timely diagnose a spinal abscess resulting in permanent impairment; [i]ncorrect remote reading of fetal monitoring strips by an obstetrician; [s]uspected stroke incorrectly diagnosed by a tele-stroke consult; [f]ailure to adequately remotely monitor and assess an ICU patient for blood loss and hypotension resulting in severe brain damage; failure to summon an intensivist for a more thorough bedside evaluation.<sup>167</sup>

Additional general telemedicine allegations and complaints include claims that physicians should have conducted an examination in-person instead of by videoconference; an image distortion caused a misdiagnosis; a technology or power failure during a consultation caused a harmful delay or error; negligent prescription based on a video examination; and negligent failure to provide necessary telemedical support.<sup>168</sup> Although medical records increasingly reside “in the cloud” regardless of treatment modality, to the extent reliant on additional use of technology infrastructure, telemedicine presents some incremental exposure for potential hacks or privacy breaches.<sup>169</sup>

Numerous guidelines proffered by telemedicine associations and trade groups attempt to mitigate these risks.<sup>170</sup> Although these documents are published to provide guidance, plaintiffs’ counsel often wield them as a weapon, treating them as the minimum standard of care that providers must abide by.<sup>171</sup> The problem is aggravated by the fact that as of 2008, there were already more than 2,700 clinical practice guidelines promulgated by a wide variety of groups and organizations, which often contained inconsistencies, along with the inherent challenge of regulating a rapidly emerging treatment modality on the verge of becoming its own big business industry.<sup>172</sup> These well-intentioned guidelines tend to be inflexible in light of the technology involved and quickly become outmoded given technological evolution. They also often lack sufficient detail or basis for standards and can be promulgated by parties with

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167. *Id.* at 12.

168. *Id.*

169. *See, e.g.*, Brian Krebs, *The Equifax Breach: What You Should Know*, KREBONSECURITY (Sept. 11, 2017), <https://krebsonsecurity.com/2017/09/the-equifax-breach-what-you-should-know> (describing the recent Equifax data breach); Brian Krebs, *Target Hackers Broke in Via HVAC Company*, KREBONSECURITY (Feb. 5, 2014), <https://krebsonsecurity.com/2014/02/target-hackers-broke-in-via-hvac-company> (describing the Target data breach).

170. *See, e.g.*, Hyams et al., *Proactive Guidelines and Malpractice Litigation: A Two-way Street*, 122 ANNALS OF INTERNAL MED. 450, 451–52 (1995) (stating only 17 of 259 claims reviewed (6.6%) involved clinical practice guidelines; of these, in 12 the guidelines were inculpatory and in 4, exculpatory); Maxwell J. Mehlman, *Medical Malpractice Guidelines as Malpractice Safe Harbors: Illusion or Deceit?*, 40 J. L., MED. & ETHICS 286, 297 (2012) (stating in 24 additional reported cases, the defense used guidelines successfully in 9 and the plaintiffs in 11).

171. *See, e.g.*, Hyams et al., *supra* note 170; Mehlman, *supra* note 170, at 286.

172. *See* INST. OF MED., CLINICAL PRACTICE GUIDELINES WE CAN TRUST 2 (Robin Graham et al. eds., 2011).

conflicts of interest, including parties with a vested interest in their corner of the industry.<sup>173</sup> In the absence of a unifying federal standard, such disparate guidelines will continue to proliferate.

While the standard of care and practice guidelines are a problem for any provider facing tort liability, telemedicine providers are particularly at risk because the practice of telemedicine is new and evolving. Providers, medical boards, telemedicine associations, and malpractice insurers must establish practical solutions to ensure workable standards for practicing telemedicine that do not obstruct the adoption of telemedicine technologies.

#### IV. TAILOR-MADE OPPORTUNITIES FOR EXPANDED USE OF TELEMEDICINE: RURAL AMERICA AND LONG-TERM CARE FACILITIES

The push toward integrated care and related care reforms, combined with the physician shortfall and increasing chronicity in U.S. population health, point toward the need to fully adopt telemedicine technologies to address these issues. While all patients could likely benefit from the use of telemedicine technologies, the adoption of telemedicine is particularly urgent in two segments of the health care industry: (1) rural hospitals and (2) skilled nursing and long-term care facilities.

##### *A. Rural Hospitals in Critical Condition*

Since the beginning of 2010, eighty-three rural hospitals across the country have closed their doors.<sup>174</sup> This dynamic forces more and more Americans to either do without, or haul long distances for health care—often leading to health risks most Americans would find unacceptable.<sup>175</sup> While not all submarket and community situations are alike, it seems that with every passing week, state and national news organizations report the closure or deep financial struggles of another rural hospital.<sup>176</sup>

Each closure results in tragic stories of community members forced to drive long distances to obtain basic and emergency care.<sup>177</sup> Certain emergencies simply will not wait for a long drive or a helicopter flight.

173. See, e.g., Hyams et al., *supra* note 170; Mehlman, *supra* note 170, at 292.

174. Victoria Pelham, *Medicaid Overhaul Could Imperil Rural Health, Analysts Warn*, BLOOMBERG L. (May 23, 2017), <https://www.bna.com/medicaid-overhaul-imperil-n73014451402>; see also *83 Rural Hospital Closures: January 2010 – Present*, UNC CECIL G. SHEPS CTR. FOR HEALTH SERVS. RES., <http://www.shepscenter.unc.edu/programs-projects/rural-health/rural-hospital-closures> (last visited Feb. 13, 2018).

175. See, e.g., Marianne Vanderschuren & Duncan McKune, *Emergency Care Facility Access in Rural Areas Within the Golden Hour?: Western Cape Case Study*, INT'L J. HEALTH GEOGRAPHICS (Jan. 16, 2015).

176. See, e.g., The Summit Daily, *New Leadville Hospital Dealt Major Setback After Feds Withhold Loan*, DENV. POST (May 23, 2017, 7:09 AM), <http://www.denverpost.com/2017/05/23/leadville-hospital-building-repairs-setback> (stating St. Vincent's Hospital, a Critical Access Hospital serving a mountainous rural area is the only hospital in Lake County and North America's highest city of Leadville, Colorado).

177. See, e.g., *id.*

For example, treatment for heart attacks and strokes must occur within the “golden hour”—the first hour—to avert permanent loss of heart muscle and brain tissue, and time is of the essence for mother and baby in pregnancies with complications.<sup>178</sup> In addition to undermining the health and wellness of local residents, closures of rural hospitals typically take away what is often a primary economic engine in proud communities.<sup>179</sup>

Rural communities find that the ACA and market forces challenge their stand-alone hospitals.<sup>180</sup> For states adopting the Medicaid expansion, opportunity offered by the ACA, while the uninsured population decreased, also created other challenges for rural facilities, such as decreased support for the uninsured; reduced reimbursement rates; increased compliance and electronic health records requirements; strict regulatory requirements; increased accountability to federal and state regulatory agencies; and tough penalties when patients return to the hospital after their release to be readmitted.<sup>181</sup> Together with lingering effects of the economic recession, tight state and local government budgets, and payors permitting fewer patients to stay overnight, rural hospitals often find themselves trapped in a perfect storm that could force many more closures in the years ahead.

Hospitals are now required to publish charges annually, creating greater transparency and empowering counterparties to negotiate.<sup>182</sup> Hospitals must find efficiencies as they compete against large health care systems in responding to the ACA’s demands for better coordinated high-quality care as well as reimbursement reductions under federal and state health care programs.<sup>183</sup> Pay-for-performance programs harshly impact facilities with high re-admission rates or clinical quality measures

178. See Vanderschuren & McKune, *supra* note 175.

179. Bram Sable-Smith, *Deep Cuts to Medicaid Put Rural Hospitals in the Crosshairs*, CNNMONEY (June 24, 2017, 9:30 AM), <http://money.cnn.com/2017/06/24/news/economy/medicaid-rural-hospitals/index.html> (“And a rural hospital closure goes beyond people losing health care. Jobs, property values and even schools can suffer. Pemiscot County already has the state’s highest unemployment rate. Losing the hospital would mean losing the county’s largest employer.”).

180. See Patient Protection and Affordable Care Act, 42 U.S.C. §§ 18001–18122 (2012); see also Julie Brill, Comm’r Fed. Trade Comm’n, Keynote Address at the 2013 National Summit Provider Market Power Catalyst for Payment Reform: Promoting Healthy Competition in Health Care Markets: Antitrust, the ACA, and ACOS 1–3 (June 11, 2013) (transcript available at [https://www.ftc.gov/sites/default/files/documents/public\\_statements/promoting-healthy-competition-health-care-markets-antitrust-aca-and-acos/130611cprspeech.pdf](https://www.ftc.gov/sites/default/files/documents/public_statements/promoting-healthy-competition-health-care-markets-antitrust-aca-and-acos/130611cprspeech.pdf)); Stephen Barlas, *Hospitals Struggle with ACA Challenges: More Regulatory Changes are in the Offing in 2015*, 39 PHARMACY & THERAPEUTICS 627, 627–29, 645 (2014).

181. See CRISTINA BOCCUTI & GISELLE CASILLAS, THE HENRY J. KAISER FAMILY FOUND., AIMING FOR FEWER HOSPITAL U-TURNS: THE MEDICARE HOSPITAL READMISSION REDUCTION PROGRAM 4, 8–9 (2017), <http://files.kff.org/attachment/Issue-Brief-Fewer-Hospital-U-turns-The-Medicare-Hospital-Readmission-Reduction-Program>.

182. See 42 U.S.C. § 1395w-4 (2012); see also Julie Brill, *supra* note 180; JESSICA CURTIS, COMMUNITY CATALYST: HOSPITAL ACCOUNTABILITY PROJECT, WHAT DOES THE AFFORDABLE CARE ACT SAY ABOUT HOSPITAL BILLS? 2, 4, 16, 17 (2015).

183. See Julie Brill, *supra* note 180, at 2–4.

that fall below national standards.<sup>184</sup> A Kaiser Family Foundation report on hospital readmissions noted that “lower-income communities and families may have limited resources for reliable transportation to take patients to follow-up medical appointments, assistance with patient mobility and daily living needs during recovery, and access to foods that meet patients’ special dietary needs.”<sup>185</sup> One way to mitigate patient and community challenges with transportation to follow-up appointments to achieve lower hospital readmissions in distant rural areas: greater access to telemedicine, either provided in the home, or in community-based clinics in closer proximity than the nearest hospital.

In the event that the rural hospital proves unsustainable, the next best alternative may be a free-standing emergency room with less bed space or a small urgent care clinic leveraging additional expertise and bandwidth through telemedicine programs and harnessing ambulance or helicopter support when absolutely necessary. Telemedicine may provide an opportunity to save rural health care, avoiding “selling out” via a sale, or, worse yet, closure. While funding challenges and competition will continue to plague rural hospitals, telemedicine provides rural facilities with the ability to leverage telemedicine in concert with regional partners to bring specialist care into the rural facility rather than allowing patients to drift to large hospitals in metro areas. Gary Capistrant, Chief Policy Officer of the American Telemedicine Association, said the following about the profound change telemedicine can bring:

Twelve states have less than 2,000 specialists, and [eleven] states have less than [eleven] specialists per 10,000 [people]. Would it be right to limit individuals in those states just to the provider pools within their own states? Three states are on both of these lists: Idaho, Montana, and Wyoming. This is especially a problem for people with special needs, such as in the care of rare diseases (diseases that affect less than 200,000 Americans). What kind of access does somebody with one of those diseases have in rural or underserved areas? Where would you go if you needed a pediatric cardiologist who spoke Spanish or knew sign language?<sup>186</sup>

If telemedicine expanded beyond current limits, a robust telemedicine program could retain patients and compliment on-site physicians. However, for telemedicine to alleviate the rural health crisis, payors—particularly the federal government—must greatly expand treatments eligible for reimbursement.<sup>187</sup> At present, without dramatic expansion of the type of permitted and recognized telemedicine services, community members will still need to travel significant distances for

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184. BOCCUTI & CASILLAS, *supra* note 181, at 7–9.

185. *Id.* at 8.

186. See Gary Capistrant, *Licensure*, in THE ROLE OF TELEMEDICINE IN AN EVOLVING HEALTH CARE ENVIRONMENT: WORKSHOP SUMMARY, *supra* note 36, at 20.

187. See *supra* Section IV.A.

many key aspects of their health care needs.<sup>188</sup> Leveraging telemedicine to preserve rural hospitals should be a priority to ensure that patients in rural areas have reasonable access to care, both through technology and in-person visits.

*B. Telemedicine Benefits for Skilled Nursing and Long-Term Care Facilities*

Telemedicine also offers substantial benefits to the long-term care industry.<sup>189</sup> Aging populations require significant medical attention, and skilled nursing and long-term care facilities face challenges in properly handling an aging patient's needs.<sup>190</sup> While a frail resident may not wish to be transported to a hospital, skilled nursing and long-term care facilities lack onsite resources and thus face legal liability if these facilities undertake medical efforts onsite that fall short of the standard of care.<sup>191</sup> Meanwhile, the ambulance transport and hospital in-patient-stay increase costs significantly, with skilled nursing and long-term care facilities losing reimbursements for each day the patient is offsite.<sup>192</sup> Having arrived at the hospital, the skilled nursing and long-term care populations, typically frail and elderly to begin with, are then exposed to potential hospital-acquired secondary infections.<sup>193</sup> Finally, these patients cannot simply checkout at their own convenience and obtain transportation from a friend or relative.<sup>194</sup> Once admitted to the hospital—out of protection for their own well-being and protection for hospital management—patients must navigate a legal and bureaucratic maze to return home.<sup>195</sup> The flurry of required paperwork may exceed the capacity of the ill patient, and some do not have access to assistance, such as a trusted friend, advisor, or attorney.

While treating marginal cases in less expensive settings than hospitals makes sense, the long-term care industry lacks engagement with telemedicine, as evinced by Medicare's scant reimbursements.<sup>196</sup> This conundrum drew the attention of the Medicare-Medicaid Coordination Office, which partnered with the Center for Medicare & Medicaid Innovation to establish "The Initiative to Reduce Avoidable Hospitalizations Among Nursing Facility Residents" to enhance the

188. INST. OF MED., *supra* note 36, at 6, 14, 20, 31–33, 35, 55, 102.

189. *See Initiative to Reduce Avoidable Hospitalizations Among Nursing Facility Residents*, CTRS. FOR MEDICARE & MEDICAID SERVS. (Oct. 20, 2017), <https://innovation.cms.gov/initiatives/rahnfr>.

190. *See id.*

191. *See id.*

192. *See id.*

193. *HAI Data and Statistics*, CTRS. FOR DISEASE CONTROL & PREVENTION (Oct. 25, 2016), <https://www.cdc.gov/hai/surveillance/index.html> ("On any given day, about one in 25 hospital patients has at least one healthcare-associated infection.").

194. *See Initiative to Reduce Avoidable Hospitalizations Among Nursing Facility Residents*, *supra* note 189.

195. *See id.*

196. *See supra* Section IV.A.

quality of care for people in long-term facilities, specifically focusing on avoiding unnecessary inpatient hospitalizations.<sup>197</sup> “CMS research on Medicare–Medicaid enrollees in [nursing] facilities found that approximately 45% of hospital admissions among individuals receiving either Medicare skilled nursing facility services or Medicaid nursing facility services could have been avoided, accounting for 314,000 potentially avoidable hospitalizations and \$2.6 billion in Medicare expenditures in 2005.”<sup>198</sup> Consider the benefits of remote patient monitoring: a proper on-site response when triggered by a patient’s vitals or other information could prevent deterioration in health among vulnerable populations by identifying problems earlier on and by avoiding hospital-acquired infections.<sup>199</sup> Further, telehealth can mitigate costly readmissions following discharge by increasing timely access to providers with a relationship with the patient.<sup>200</sup> With great potential for saving money and improved patient health, adopting telemedicine in skilled nursing and long-term care facilities is a solution benefiting all parties—keeping the resident-patient comfortable at home; avoiding losses in daily reimbursements for the care facility; reducing readmissions and associated penalties; and saving payors substantial amounts in ambulance transit and overnight stays at hospitals.<sup>201</sup>

#### V. PATHS TO MORE EFFICIENT USE OF TELEMEDICINE

Despite a myriad of obstacles of varying severity impeding the broader adoption of telemedicine, proposed solutions for many of those obstacles offer meaningful potential for the industry. Broad health care delivery and payment reforms, along with establishing common standards and implementing changes addressing its unique challenges, would pave the way for telemedicine to gain traction in the United States. Fully adopting telemedicine would require significant support and participation from payors and regulatory agencies alike. Even so, the potential benefits from improvements in access to, and quality of, care—at a significantly lower cost—suggest paving the way for the efficient use of telemedicine will be worth the effort.

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197. *Initiative to Reduce Avoidable Hospitalizations Among Nursing Facility Residents*, *supra* note 189.

198. *Id.*

199. Niall Brennan & Tim Engelhardt, *Data Brief: Sharp Reduction in Avoidable Hospitalizations Among Long-Term Care Facility Residents*, CMS BLOG (2017), <https://blog.cms.gov/2017/01/17/data-brief-sharp-reduction-in-avoidable-hospitalizations-among-long-term-care-facility-residents> (“In 2015 . . . Medicare beneficiaries eligible for full Medicaid benefits living in long-term care facilities . . . accounted for 270,000 hospitalizations. . . . [A]most a third . . . of these hospitalizations resulted from six potentially avoidable conditions: bacterial pneumonia, urinary tract infections, congestive heart failure, dehydration, chronic obstructive pulmonary disease or asthma, and skin ulcers.”).

200. Phil McNulty, *Achieving Meaningful ROI by Reducing Rehospitalizations*, MCKNIGHT’S LONG-TERM CARE NEWS (Sept. 21, 2015).

201. *See* Brennan & Engelhardt, *supra* note 199.

*A. System-Wide Transition from Fee-for-Service Medicine Towards Models Focused on Value and Population Health*

One major obstacle to the adoption of telemedicine is payors' fear that under a fee-for-service model, telemedicine will increase costs.<sup>202</sup> Policy experts have long expressed profound concerns with fee-for-service medicine, but longstanding health care regulatory laws prevent more innovative delivery systems from expanding beyond their current "experimental" status.<sup>203</sup> Meanwhile, the current debate on Capitol Hill continues to focus on "access" to health care—how patients obtain insurance coverage and how it is paid for—rather than focusing on reforms promoting alternatives to fee-for-service.<sup>204</sup> Unfortunately, even assuming politicians address comprehensive reform in access to health care, substantial legal obstacles remain.<sup>205</sup>

Fundamentally, the U.S. health care system is dysfunctional and in need of reform.<sup>206</sup> Telemedicine can provide core health care services in many areas and serve as a compliment to traditional in-person visits, which do not fit neatly within a fee-for-service system.<sup>207</sup> Patient compliance suffers in traditional fee-for-service medicine: the follow-up visit that is inconvenient for the patient, given the travel involved and time spent in a waiting room in exchange for a short follow-up.<sup>208</sup> Periodic check-ins could lead to successful health care reform, monitoring key patient vital signs and ensuring patient compliance with post-operative instructions, proper use of prescription drug treatments, and rehabilitation through correct physical therapy techniques. As long as fee-for-service medicine remains the baseline for delivery of care, the use of telemedicine for these smaller interactions will prove challenging. In a fee-for-service system, any interaction that lacks a reimbursement code is uncompensated.<sup>209</sup> While some physicians care about their patients and their profession, they cannot afford to be uncompensated for services they provide. The smaller interactions that telemedicine can

202. Linkous, *supra* note 115, at 17–18.

203. See discussion *infra* p. 49 and note 229; see, e.g., Stark Law, 42 U.S.C. § 1395nn (2012) (prohibiting physician referrals to entities in which they have any economic interest); 42 U.S.C. § 1320a-7b(b) (Anti-Kickback Statute).

204. See American Health Care Act of 2017, H.R. 1628, 115th Cong. (1st Sess. 2017).

205. See *supra* Part III.

206. See *supra* Section I.B.

207. See Beck & Margolin, *supra* note 17, at 10.

208. BOCCUTI & CASILLAS, *supra* note 181.

209. See David E. Beck & David A. Margolin, *Physician Coding and Reimbursement*, 7 Ochsner J., no. 1, Spring 2007, at 8–15 (“Physician reimbursement from Medicare is a three-step process: 1) appropriate coding of the service provided by utilizing current procedural terminology (CPT®); 2) appropriate coding of the diagnosis using ICD-9 code; and 3) the Centers for Medicare and Medicaid Services (CMS) determination of the appropriate fee based on the resources-based relative value scale (RBRVS). . . . For a new procedure or technology to receive a code, it must first meet criteria: It must be done by a reasonable number of the specialty that presents the code, be performed at reasonable frequency, be done throughout the country, and have peer-reviewed literature supporting its efficacy. . . . Once a procedure or service receives a code, it needs to be valued for reimbursement purposes.”).

support should not be relegated to “loss leader” status, dependent upon physician good will or willingness to “do the right thing” by giving away their services.

Some political leaders tout high-deductible insurance plans paired with health savings accounts as a path toward efficiency within the existing fee-for-service system, forcing patients to evaluate their own health care spending as market participants.<sup>210</sup> To some degree, this approach constitutes *de facto* self-rationing of health care, as health care consumers rein in their use of health care unless and until their annual deductible is met.<sup>211</sup> To the extent that health care consumers wish to allocate their own health care expenditures more efficiently, telemedicine can play a key role in empowering the patient as consumer, enabling patients to reduce spending by using it as part of careful management of their own care. Telemedicine can support keeping populations healthy by caring for a person in the most efficient time, manner, and setting; enhancing preventive medicine; supporting patient compliance with post-acute care treatment instructions; and reducing acute care episodes and readmissions to hospitals, creating efficiencies and cost savings.

#### *B. Recent Federal Legislation Proposed to Overcome Barriers to Telemedicine*

Even without progress toward reimbursement models focused on value-based health care and population health, simple legislative reforms offer great promise for broader adoption of telemedicine. With or without health care reform, incorporating telemedicine across a broad spectrum of payor and provider systems can change the health care world. In response to some obstacles inherent in broad adoption of telemedicine, congressional representatives introduced federal legislation addressing these challenges.<sup>212</sup> The Telehealth Modernization Act of 2015 establishes that if a state authorizes a health care professional to deliver health care services, the state should authorize delivery of those services via telemedicine modalities, subject to certain conditions.<sup>213</sup> Addressing concerns about telemedicine standard of care, the Act mandates a litany of best practices.<sup>214</sup> Additionally, the Act requires

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210. Jessie Hellmann, *GOP Healthcare Plans Push Health Savings Account Expansion*, HILL (Feb. 22, 2017, 1:22 PM), <http://thehill.com/policy/healthcare/320656-gop-healthcare-plans-push-health-savings-account-expansion> (“What if 30 percent of the public had health savings accounts?” Sen. Rand Paul (R-Ky.) asked. “What do you do when you use your own money? You call up doctors and ask the price. . . . If you create a real marketplace, you drive prices down.”).

211. Notably, the healthiest Americans who may self-ration are not those driving the costs in the system; the high-deductible insurance plans paired with health savings accounts do little to address the exorbitant cost of chronic conditions and end-of-life care, and instead leave these patients to annually burn through their personal savings until deductibles have been exceeded simply to meet basic health care needs.

212. *See, e.g.*, Telehealth Modernization Act of 2015, H.R. 691, 114th Cong. (1st Sess. 2015).

213. *Id.*

214. *Id.* § 3.

document sharing from the medical consultation, a best practice that can often prove difficult in a traditional setting.<sup>215</sup> Finally, acknowledging fears that telemedicine will provide easy access to controlled substances, the Act strictly bars physicians from prescribing certain drugs.<sup>216</sup>

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(1) ACCESSIBILITY AND REVIEW OF MEDICAL HISTORY.—The health care professional should have access to the medical history of the individual, and should review such medical history with the individual, to the same extent that the health care professional would have access to such medical history and would review such medical history if delivering the health care in person.

(2) IDENTIFICATION OF UNDERLYING CONDITIONS AND CONTRAINDICATIONS.—To the extent practicable, the health care professional should attempt to identify the conditions underlying the symptoms, if any, reported by the individual before such professional provides any diagnosis or treatment to the individual. In the case that the health care professional recommends a treatment to the individual, the health care professional should review with the individual the contraindications to the recommended treatment.

(3) DIAGNOSIS.—Subject to the professional discretion of the health care professional, such professional should have a conversation with the individual adequate to establish any diagnosis rendered.

*Id.*

215. *Id.*

(4) DOCUMENT EVALUATION, MEDICAL RECORDS, AND PROVISION OF MEDICAL INFORMATION.—The health care professional should document the evaluation and treatment delivered to the individual, if any, for the purpose of generating a medical record of the encounter. At the option of the individual, the health care professional should:

(A) provide the individual with medical information, in standard medical record format, about such evaluation and treatment; and

(B) send any documentation concerning such evaluation and treatment to one or more selected health care professionals responsible for the care of the individual.

The requirements go on to stipulate that health care professionals provide their credentials, and not make promises of outcomes in return for money or simply completing questionnaires:

(5) TRANSPARENCY REGARDING PROFESSIONAL CREDENTIALS.—At the option of the individual, the health care professional should provide to the individual, in electronic and paper format, information regarding the health care education, certification, and credentials of the health care professional.

(6) NO ASSURANCE CONCERNING ITEMS OR SERVICES.—The health care professional should offer no assurance to the individual that any item or service, including a prescription, will be issued or provided:

(A) in exchange for the payment of the consultation fee charged by the health care professional; or

(B) solely in response to the individual completing a form or questionnaire.

*Id.*

216. *Id.*

(7) PRESCRIPTION REQUIREMENTS.—Any prescription issued by the health care professional as part of the health care delivered to the individual should meet the following requirements:

(A) The prescription is issued for a legitimate medical purpose in the usual course of professional practice.

(B) The prescription is issued by a health care professional who has obtained a medical history and conducted an evaluation of the individual to whom such prescription is issued adequate to establish a diagnosis.

(C) The prescription is not for a drug or substance in schedule II, III, or IV of section 202(c) of the Controlled Substances Act (21 U.S.C. 812(c)).

(D) The prescription is filled by an appropriately licensed dispensing entity.

*Id.*

In addition to the Telehealth Modernization Act of 2015, the Telehealth Enhancement Act of 2015 promotes and expands the application of telemedicine under Medicare, Medicaid, and other federal health care programs, including ACOs and bundling.<sup>217</sup> The Act requires robust reporting on quality measures:

As a condition for receiving payment for health home services provided to an eligible individual with chronic conditions, a designated provider shall report, in accordance with such requirements as the Secretary shall specify, including a plan for the use of remote patient monitoring, on all applicable measures for determining the quality of such services. When appropriate and feasible, a designated provider shall use health information technology in providing the Secretary with such information.

Not later than [two] years after the date of the enactment of this Act, the Secretary of Health and Human Services shall survey States . . . on the nature, extent, and use of the option under such section particularly as it pertains to: (i) hospital admission rates; (ii) chronic disease management; (iii) coordination of care for individuals with chronic conditions; (iv) assessment of program implementation; (v) processes and lessons learned . . . ; (vi) assessment of quality improvements and clinical outcomes under such option; and (vii) estimates of cost savings.<sup>218</sup>

The proposed language regulates telemedicine providers more stringently than traditional in-person providers, as these reporting requirements and the Health and Human Services mandate to collect additional data represent additional burden on telemedicine.

Despite the proliferation of abuse of prescription drugs, several states recently reversed prior stringent restrictions on the prescription of controlled substances via telemedicine without an in-person examination.<sup>219</sup> These reversals indicate a growing trend acknowledging the increased role of telemedicine, and the clinical importance of controlled substances in numerous practices engaged in telemedicine, such as emergency medicine, hospitalists, telepsychiatry, and endocrinology.<sup>220</sup> These states recognize that the role of telemedicine, coupled with the ability to prescribe, outweighs incremental risk of proliferation of controlled substances with those states relying upon

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217. Telehealth Enhancement Act of 2015, H.R. 2066, 114th Cong. (1st Sess. 2015).

218. *Id.* § 102.

219. See, e.g., S.B. 213, 99 Leg. Reg. Sess. (Mich. 2017); S.B. 226, 120th Gen. Assemb., 1st Reg. Sess. (Ind. 2017) (reversing prior laws to now allow prescription of controlled substances via telemedicine without an in-person examination).

220. See, e.g., Nathaniel M. Lactman & Thomas B. Ferrante, *Michigan Telemedicine Prescribing and Controlled Substance Laws*, HEALTH CARE L. TODAY (June 22, 2017), <https://www.healthcarelawtoday.com/2017/06/22/michigan-telemedicine-prescribing-and-controlled-substance-laws-2/><https://www.healthlawyers.org/hlresources/Pages/archive.aspx>.

federal laws regulating the remote prescription of controlled substances once permissible under state law.<sup>221</sup>

A third telemedicine act, the Tele-Med Act of 2015, cuts the Gordian knot of state regulation that hinders the practice of telemedicine across state lines.<sup>222</sup> This Act permits certain Medicare providers, licensed in a state, to provide telemedicine services to certain Medicare beneficiaries in a different state, without requiring licensure in that state.<sup>223</sup> Unfortunately, all three of these legislative proposals did not pass in the 114th Congress and the future remains uncertain in the current Congress.<sup>224</sup>

On a positive note, several congressional representatives recently founded the bipartisan Congressional Telehealth Caucus, a growing group dedicated to reinvigorating telemedicine reform at the federal level.<sup>225</sup> The group promotes the Medicare Telehealth Parity Act of 2017.<sup>226</sup> The Act expands coverage of Medicare for telemedicine services over the course of three phases, eventually allowing originating sites to include home telemedicine sites, and expanding qualifying originating geographic locations to include counties in metropolitan statistical areas with populations above 100,000,<sup>227</sup> which would “modernize the way Medicare reimburses telehealth services.”<sup>228</sup>

In May 2017, the Senate Finance Committee moved forward with the Chronic Care Act, a bipartisan, limited expansion of telemedicine in Medicare for consultations for monthly clinical assessments for those on home dialysis and for patients with stroke complications.<sup>229</sup> Senator Roger Wicker stated that “Medicare is behind the curve—limiting access to millions of seniors. The Chronic Care Act is a step in the right direction.”<sup>230</sup> However, if anything, hospital leaders adamantly pushed for greater expansion of telemedicine than the Chronic Care Act

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221. See Ryan Haight Online Pharmacy Consumer Protection Act of 2008, 21 U.S.C. § 829(e) (2012) (governing remote prescription of controlled substances).

222. TELE-MED Act of 2015, H.R. 3018, 114th Cong. (2015).

223. *Id.*

224. See H.R.691 – Telehealth Modernization Act of 2015, CONGRESS.GOV, <https://www.congress.gov/bill/114th-congress/house-bill/691> (last visited Nov. 27, 2017); H.R.2066 – Telehealth Enhancement Act of 2015, CONGRESS.GOV, <https://www.congress.gov/bill/114th-congress/house-bill/2066> (last visited Nov. 27, 2017); S.1778 – TELE-MED Act of 2015, CONGRESS.GOV, <https://www.congress.gov/bill/114th-congress/senate-bill/1778> (last visited Nov. 27, 2017).

225. Nathaniel M. Lactman & Thomas B. Ferrante, *Is Telemedicine Change Coming to Congress? The Medicare Telehealth Parity Act of 2017 Among Several New Bills*, HEALTH CARE L. TODAY (July 20, 2017), <https://www.healthcarelawtoday.com/2017/07/10/is-telemedicine-change-coming-to-congress-the-medicare-telehealth-parity-act-of-2017-among-several-new-federal-bills>.

226. Medicare Telehealth Parity Act of 2017, H.R. 2550, 115th Cong. (2017).

227. *Id.*

228. Lactman & Ferrante, *supra* note 220.

229. Creating High-Quality Results and Outcomes Necessary to Improve Chronic (CHRONIC) Care Act of 2017, S. 870, 115th Cong. (2017).

230. Rich Daly, *Medicare Telehealth Set to Expand in Bipartisan Legislative Push*, HFMA (May 16, 2017), <https://www.hfma.org/Content.aspx?id=54165>.

presently offers.<sup>231</sup> With the Congressional Budget Office's report pending, John Lovelace, president of the University of Pittsburgh Medical Center Health Plan Insurance Services Division, refuted our expectations of increased spending and no savings in the long term.<sup>232</sup> Mr. Lovelace testified that the "evaluation of [proposals to expand access to telemedicine] to date indicate there is not an incremental cost to this, rather they replace services people would otherwise get in doctors' offices, urgent care centers, and emergency centers."<sup>233</sup>

Overall, while the Chronic Care Act and Medicare Telehealth Parity Act are encouraging, they hold an uncertain future in a Congress with a very full slate, and each Act takes only small steps towards expanding telemedicine. Even with federal legislation expanding access to reimbursement for telemedicine, entrepreneurs in the telemedicine space must navigate a thicket of general health care regulations that, while well-intentioned, nonetheless stifle innovation.<sup>234</sup> Several examples include the Stark Law, which prohibits physician referrals to entities in which they have any economic interest, as well as the Anti-Kickback Statute, which prohibits the offer, payment, solicitation or receipt of any form of remuneration in return for, or with the purpose to induce, the referral of Medicare, Medicaid or other federal health care program patients, and other fraud and abuse laws.<sup>235</sup> Moreover, while new businesses often offer incentives to first time visitors, any form of discount offered to new telemedicine subscribers could be viewed as an improper patient inducement under the Civil Monetary Penalties Law—which includes a prohibition against offering or paying remuneration to a patient who is a Medicare or Medicaid beneficiary with the purpose to encourage a beneficiary to select a particular provider.<sup>236</sup> Providers cannot offer remuneration to beneficiaries if they know or should know that the remuneration is likely to influence the beneficiary's decision to select a certain provider.<sup>237</sup> In this context, remuneration includes the transfer of items or services for free, or other than fair market value, effectively barring discounts for new adopters of telemedicine services.<sup>238</sup> Thus, despite the cost of hospital re-admissions, and telemedicine's potential to assist in maintaining healthy populations, Congress and the CMS show only limited interest in promoting

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231. *Id.*

232. *Id.*

233. *Id.*

234. See Michael King, *Achieving Health Care Efficiencies Through Consolidation and Alternative Models: Irreconcilable Differences?*, AM. J. LAW. & MED. (forthcoming 2017).

235. Stark Law, 42 U.S.C. § 1395nn (2012); 42 U.S.C. § 1320a-7b(b) (2012) (Anti-Kickback Statute); see *id.*

236. See 42 U.S.C. § 1320a-7a.

237. *Id.*

238. *Id.* § 1320a-7a. Providers who violate the prohibition on beneficiary inducements may face a civil fine of \$10,000 per item or service. *Id.* Additionally, the OIG may initiate proceedings to exclude the offending provider from participation in federal health care programs. *Id.*

reimbursement for telemedicine visits, and telemedicine continues to struggle to fit into the current fee-for-service driven health care world.

#### CONCLUSION: IMAGINE THE POSSIBILITIES

Disruptive technologies challenge the status quo by forcing us to think differently. However, fear of change does not justify unnecessary legal and bureaucratic obstacles to progress. Instead of preventing or undermining the implementation and use of telemedicine, leaders and regulators should focus on establishing standards, protocols, and technologies that promote safe and efficient use of this technology.

Despite spending eighteen percent of the GDP on health care, limited political will exists for fundamental health care payment and delivery reform at the federal level. Both the ACA and the AHCA created political wildfires, even though they primarily focused on how Americans receive health insurance coverage, rather than methods of delivery for health care treatment. While sweeping change may be politically and logistically difficult, with or without comprehensive federal health care delivery reform, full adoption of telemedicine will help wring significant efficiencies for health care in America. Unfortunately, substantial obstacles to full adoption of telemedicine will persist until politicians muster the will to tackle payment and delivery reforms. Concerns about telemedicine interactions occurring in addition to, rather than instead of, traditional health care foment fears of telemedicine as a “budget buster.” These fears are addressed through deployment of telemedicine in support of value-based initiatives, where providers collaborate across disciplines and maintain accountability for the ongoing health of the patient, such as bundled health care or population health management. At a minimum, the telemedicine provider can implement a plan of care in the event of inappropriate or excessive demands from a patient.

An increased movement away from conventional reimbursement models and fee-for-service medicine increases opportunities for logical deployment of telemedicine in support of overall patient health and well-being, as well as reduction in re-admissions. As health plans drive toward value-based health care and population health management, growing demand for telemedicine will follow. Meanwhile, to the extent that high deductible plans continue to play a prominent role, consumer demand for telemedicine services will grow in recognition of telemedicine as a less costly alternative to managing health care needs. Finally, to the extent that employer-based health care continues to dominate the private health insurance market, large employers will demand telemedicine services to more efficiently support the health and well-being of their workforce, thus facilitating leverage in negotiating for lower premiums and deductibles for a healthier, more efficient population. These incentives are greater for self-insured employers.

Rural as well as long-term care settings offer opportunities for telemedicine to immediately address pressing needs, but telemedicine's effectiveness transcends rural settings, and artificial limitations to rural localities foreclose beneficial expansion. Promising signs emerge at the state level, such as the Texas legislature effectively overruling its state medical board to enable telemedicine physician–patient relationships to proceed without an initial in person visit,<sup>239</sup> and the Michigan and Indiana legislatures reversing prior restrictions on the prescription of controlled substances via telemedicine without an in-person visit.<sup>240</sup> Even as the shift toward value-based reimbursement models move forward, federal legislation should be adopted to expedite the availability of treatment modalities and reimbursement for telemedicine, with expedited rules for telemedicine across state lines, which would consider the location of the physician to be the treatment jurisdiction, much like driving across state lines for care. The United States did not maintain artificial barriers to more efficient access to other goods and services revolutionized by the Internet, from music and video entertainment, to browsing for real estate, to shopping for all manner of consumer goods now delivered to our homes. With America obtaining such a poor return on its dollars invested in health care,<sup>241</sup> it should assume the risks associated with innovation to drive better results. Even modest legislative and regulatory reforms create the opportunity for telemedicine as the emerging standard of care for a variety of medical needs, with the right specialists able to serve patients in the right place at the right time, and at the right price—achieving long-term savings and health improvements for a system very much in need of both.

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239. S.B. 1107, 85th Leg., Reg. Sess. (Tex. 2017).

240. See S.B. 213, 99 Leg., Reg. Sess. (Mich. 2017); S.B. 226, 120th Gen. Assemb., 1st Reg. Sess. (Ind. 2017).

241. See *supra* Sections I.A. and I.B.