

## HOSPITAL MERGERS IN AN ERA OF QUALITY IMPROVEMENT

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### ABSTRACT

*In 2005, an administrative law judge (ALJ) found that Evanston Northwestern Healthcare Corporation (ENH) had violated Section 7 of the Clayton Act by engaging in a hospital merger that substantially lessened competition. In doing so, the ALJ rejected an argument that hospital quality improvements should preclude this finding. Given increasing attempts to remedy health care quality deficiencies and increasing attention to quality measurement, similar arguments may arise more frequently in the future. This article uses the ENH case as a lens through which to examine the potential impact of the quality improvement movement on antitrust analysis as well as its broader impact on the delivery of health care services. The article begins by exploring mechanisms by which mergers might affect health care quality. It then shows how the quality-related analysis in the ENH initial decision and appeals briefs reflects simultaneously the promise of and the challenges facing the nascent quality improvement movement. After examining the quality movement's implications for analysis of hospital mergers, it then considers the implications of alternative approaches to antitrust analysis for efforts to improve health care quality.*

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I. INTRODUCTION

In 2004, the Federal Trade Commission (FTC) issued a complaint alleging that Evanston Northwestern Healthcare Corporation's (ENH's) merger with Highland Park Hospital substantially lessened competition in violation of Section 7 of the Clayton Act.<sup>1</sup> In the fall of 2005, an administrative law judge (ALJ) found that the post-merger ENH was able to increase its prices significantly through the exercise of market power and that its justifications and defenses were unpersuasive.<sup>2</sup> He concluded that ENH had violated Section 7 and ordered it to divest Highland Park,<sup>3</sup> an action that would unwind an acquisition that had occurred nearly five years before.<sup>4</sup> ENH appealed the decision to the FTC,<sup>5</sup> which will likely issue its decision in the near future.<sup>6</sup>

The ENH case may prove to be quite influential in shaping the direction of enforcement policy with respect to hospital mergers. Before ENH, federal and state enforcers had lost their last seven hospital merger cases.<sup>7</sup> After this string of losses, the FTC began a systematic retrospective review of hospital mergers to improve its

<sup>1</sup> *In re* Evanston Northwestern Healthcare Corporation, Complaint at 1, 5 (Feb. 10, 2004) (Docket No. 9315) [hereinafter *In re* Evanston], available at <http://www.ftc.gov/os/caselist/0110234/040210emhcomplaint.pdf>.

<sup>2</sup> *In re* Evanston, Initial Decision, at Part I.A (2005) [hereinafter ENH Initial Decision], available at <http://www.ftc.gov/os/adjpro/d9315/051021idtextversion.pdf>.

<sup>3</sup> *Id.*

<sup>4</sup> See Press Release, FTC, FTC Challenges Hospital Merger That Allegedly Led to Anticompetitive Price Increases (Feb. 10, 2004), available at <http://www.ftc.gov/opa/2004/02/enh.htm> (explaining that ENH-Highland Park merger occurred in 2000).

<sup>5</sup> See *In re* Evanston, Respondent's Corrected Appeal Brief (Jan. 12, 2006), available at <http://www.ftc.gov/os/adjpro/d9315/060112enhappealbriefcorrected.pdf>.

<sup>6</sup> The FTC issued its decision just as this article was going to press. The FTC affirmed the ALJ's finding that the acquisition was anticompetitive, but required the use of independent negotiating teams rather than ordering a divestiture; see *In re* Evanston, Opinion of the Commission (2007) [hereinafter Commission's Opinion], available at <http://www.ftc.gov/os/adjpro/d9315/070806opinion.pdf>.

<sup>7</sup> See FTC & DEP'T OF JUSTICE, IMPROVING HEALTH CARE: A DOSE OF COMPETITION Ch. 4 at 1 n.7 (listing cases); Timothy Muris, *Everything Old Is New Again: Health Care and Competition in the 21st Century*, Prepared Remarks, 7th Annual Health Care Forum, Chicago, Illinois, 19 (Nov. 7, 2002), available at <http://www.ftc.gov/speeches/muris/murishealthcare-speech0211.pdf> (discussing hospital antitrust enforcement); see also Toby G. Singer, *FTC*

understanding of mergers' consequences for health care competition.<sup>8</sup> It was thought that the information produced by such a review could help the FTC determine the effect of consummated mergers on competition<sup>9</sup> and provide a stronger evidence base for enforcement actions.<sup>10</sup> A successful suit against ENH would demonstrate that the FTC's efforts had been fruitful and potentially provide a framework for analyzing and litigating future hospital mergers. On the other hand, an unsuccessful suit would lengthen the string of enforcement agencies' losses, raising concern about their ability to challenge future mergers successfully.<sup>11</sup>

The ENH case raises numerous fascinating antitrust issues. It offers an opportunity to re-examine the Elzinga-Hogarty test used in previous merger cases to help define hospital markets; the ALJ rejected the test's use in the ENH analysis.<sup>12</sup> The case also provides an opportunity to weigh in on the debate over the appropriate role of hospitals' not-for-profit status in merger analysis;<sup>13</sup> while some

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*Administrative Proceedings and the Evanston Northwestern Case*, 20 ANTITRUST 29, 29 (Spring 2006) (describing recent history of FTC challenges to hospital mergers).

<sup>8</sup> See *Muris*, *supra* note 7, at 19-20.

<sup>9</sup> See *id.* at 19.

<sup>10</sup> A former chairman of the FTC observed that the data collected might "bolster the Commission's position the next time it seeks a preliminary injunction against a proposed merger in federal district court." *Id.* at 20.

<sup>11</sup> See, e.g., Michael R. Bissegger, *FTC ALJ Finds That Evanston Hospital Merger Violated Antitrust Law and Orders Divestiture* (Oct. 28, 2005), available at [http://65.220.192.51/article\\_1198.html](http://65.220.192.51/article_1198.html) ("[T]his case . . . is likely to become a bellwether of future government antitrust enforcement in hospital mergers.").

<sup>12</sup> In the hospital context, the Elzinga-Hogarty test for defining markets involves the analysis of patient flows to and from geographic areas surrounding the hospital; see, e.g., *FTC v. Tenet Health Care Corp.*, 186 F.3d 1045, 1050 (8th Cir. 1999) (describing FTC expert's testimony on Elzinga-Hogarty test); *FTC v. Freeman Hospital*, 69 F.3d 260, 264-65 (8th Cir. 1995) (explaining steps in two experts' applications of Elzinga-Hogarty test). The ALJ's rejection of the application of the Elzinga-Hogarty test was based in part on Professor Elzinga's testimony; see ENH Initial Decision, *supra* note 2, at Part II.C.2.a (findings of fact based on Elzinga's testimony); *id.* at Part III.B.2.d (analysis and conclusions of law concerning Elzinga-Hogarty test); see also Michael R. Bissegger, *The Evanston Initial Decision: Is There a Future for Patient Flow Analysis?*, 39 J. HEALTH L. 143 (2006) (discussing Elzinga-Hogarty test and its rejection in ENH case).

<sup>13</sup> For a discussion of the relationship between nonprofit status and hospital competition, see generally Thomas L. Greaney, *Antitrust and Hospital Mergers: Does the Nonprofit Form Affect Competitive Substance?*, 31 J. HEALTH POL. POL'Y & L. 511 (2006); Barak Richman, *Antitrust and Nonprofit Hospital Mergers: A Return to Basics* (Duke Law Legal Studies Working Paper No. 156, March 2007), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=975152](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=975152).

courts have taken this status into consideration,<sup>14</sup> the ALJ refused to do so.<sup>15</sup> In addition, the case raises the difficult question of what might constitute an appropriate remedy when a merger has already been consummated;<sup>16</sup> the ALJ ordered a divestiture, a remedy that ENH has argued would harm patients.<sup>17</sup>

This article will not focus, however, on the parties' disputes over market definition or remedies or the implications of ENH's not-for-profit status; nor will it speculate on the case's ultimate outcome or its impact on the likelihood of success of future merger challenges. It will instead focus on a broader issue that is as much on the minds of medical professionals, health care scholars, policy makers, and patients as it is on the minds of antitrust scholars: health care quality.

While quality is an important benefit of competition—the Supreme Court, for example, has said that the Sherman Antitrust Act “rests on the premise that the unrestrained interaction of competitive forces will yield the best allocation of our economic resources, the lowest prices, the highest quality and the greatest material progress”<sup>18</sup>—it has historically played a limited role in health care antitrust litigation. After an exhaustive study of the role of health care quality in antitrust litigation between 1985 and 1999, Professors Peter Hammer and William Sage concluded in part that “historical factors and legislative interventions often cause courts to divorce quality from competition rather than factoring it into a competitive mix.”<sup>19</sup> They found that only about a third of health care antitrust

<sup>14</sup> See, e.g., *FTC v. Butterworth Health Corp.*, 946 F. Supp. 1285, 1296–97 (W.D. Mich. 1996); see also Greaney, *supra* note 13, 516–19 (explaining role of non-profit status in merger litigation).

<sup>15</sup> See ENH Initial Decision, *supra* note 2, at Part II.D.2.c.

<sup>16</sup> On consummated mergers, see J. Robert Robertson, *FTC Part III Litigation: Lessons from Chicago Bridge and Evanston Northwestern Healthcare*, 20 *ANTITRUST* 12 (Spring 2006) (discussing recent FTC challenges to consummated mergers); Scott A. Sher, *Closed But Not Forgotten: Government Review of Consummated Mergers Under Section 7 of the Clayton Act*, 45 *SANTA CLARA L. REV.* 41 (2004) (analyzing numerous cases involving retrospective merger challenges). On the difficulty of “unscrambling the eggs” of a consummated merger, see, for example, *In re Evanston*, Brief Amicus Curiae of the Business Roundtable in Support of Evanston Northwestern Healthcare Corp. (Dec. 16, 2005), available at <http://www.ftc.gov/os/adjpro/d9315/051216mobusinroundtblfileamicus.pdf> (referring to scrambled eggs problem).

<sup>17</sup> See *In re Evanston*, Respondent's Corrected Appeal Brief, *supra* note 5, at Part III.

<sup>18</sup> *Northern Pacific R. Co. v. United States*, 356 U.S. 1, 4 (1958).

<sup>19</sup> Peter J. Hammer & William M. Sage, *Antitrust, Health Care Quality, and the Courts*, 102 *COLUM. L. REV.* 545, 636 (2002). The study includes litigation involving pharmaceuticals, medical devices, and medical professionals, not just hospitals, and anticompetitive behavior other than that associated with mergers; see *id.* at 553–54.

cases mentioned quality as an attribute of competition.<sup>20</sup> Of those opinions that did mention quality, many mentioned it generally, rather than referring to specific kinds of quality, such as the quality associated with “staffing, facilities, or technology.”<sup>21</sup> Hammer and Sage suggested that the opinions’ lack of discussion about quality resulted partly from litigation strategy; litigants tended to dispute product and geographic market definitions rather than focusing on quality-related arguments.<sup>22</sup>

The subset of health care antitrust opinions that address hospital mergers often use the term “quality,” but rarely analyze it.<sup>23</sup> Opinions issued since the mid-1990s have referred to hospital amenities,<sup>24</sup> the qualifications of physicians post-merger,<sup>25</sup> the scope of services offered,<sup>26</sup> the desire of merging hospitals to improve the quality of care,<sup>27</sup> and quality improvement efforts.<sup>28</sup> The discussions of these issues, however, are often quite brief. The opinions may describe hospitals as high quality<sup>29</sup> or cite experts who testify that a hospital offers high-quality services or that a merged entity would

<sup>20</sup> See *id.* at 589 (“Quality was discussed by courts as an attribute of competition in 436 passages, appearing in 194 different opinions (36%).”).

<sup>21</sup> *Id.*

<sup>22</sup> See *id.* at 615–16 (discussing likely reasons for limited discussion of quality issues in health care antitrust opinions).

<sup>23</sup> For a brief description of the quality arguments and findings in five recent antitrust cases, see Warren Greenberg, *The Quality Variable in Hospital Merger Analysis*, 19 *THE HEALTH LAWYER* 34, 35–37 (2006).

<sup>24</sup> See, e.g., *United States v. Mercy Health Servs.*, 902 F. Supp. 968, 986 (N.D. Iowa 1995), *vacated as moot*, 107 F.3d 632 (8th Cir. 1997) (rejecting government’s arguments that merged entity would reduce quality of care by reducing amenities).

<sup>25</sup> See, e.g., *In re Adventist Health Sys.*, 117 F.T.C. 224, 314 (1994) (“[S]everal quality of care benefits may have already resulted from the acquisition. Ukiah Valley has been able to attract more highly qualified management, more qualified physicians and nurses, and more medical specialists . . .”).

<sup>26</sup> See, e.g., *United States v. Long Island Jewish Med. Ctr.*, 983 F. Supp. 121, 131 (E.D.N.Y. 1997) (describing testimony linking breadth and depth of clinical services at a facility to quality).

<sup>27</sup> See, e.g., *FTC v. Butterworth Health Corp.*, 946 F. Supp. 1285, 1297 (W.D. Mich. 1996) (The chairmen of the boards of the two hospitals involved “testified convincingly that the proposed merger is motivated by a common desire to lower health care costs and improve the quality of care.”).

<sup>28</sup> See, e.g., *Long Island Jewish Med. Ctr.*, 983 F. Supp. at 134 (“The ongoing efforts for quality improvement by both institutions will create the potential for achievement in this important area of health care.”) (citing letter by New York State Department of Health); *id.* at 142 (“[T]he principal reasons for this merger are to continue and advance the high quality of treatment of the hospitals’ patients”).

<sup>29</sup> See, e.g., *California v. Sutter Health System*, 130 F. Supp. 2d 1109, 1112 (N.D. Cal. 2001) (“Alta Bates . . . enjoys a reputation for quality health care services.”).

offer high-quality services,<sup>30</sup> but they generally do not offer any insight into how quality is defined or assessed. Nor do they systematically examine the mechanisms by which a particular hospital merger is likely to result in higher quality.

The ALJ's ENH opinion, however, is different.<sup>31</sup> It presents and evaluates multiple types of quality-related evidence and discusses how quality-related findings ought to be incorporated into the competitive analysis. The prominent role of health care quality in the opinion undoubtedly stems in part from its prominence in the litigation itself: ENH argued that the merger was procompetitive because it resulted in higher quality of care. The retrospective nature of the case, which permitted ENH to support its claim with evidence generated after the merger, also likely contributed to the prominence of quality of care arguments.

The opinion's discussion of hospital quality is fascinating for three main reasons. First, the opinion illustrates several different routes by which mergers may improve the quality of care. Much of the conventional economic analysis of mergers focuses on how they can help reap economies of scale or scope; much less has been written on how mergers improve quality, particularly the quality of health care services. The opinion provides a specific hospital's perspective on how its merger may have improved its own quality.

Second, the opinion provides a lens through which to view the nascent health care quality improvement movement. Health care quality has always been a central concern of health care providers, but the movement to assess quality systematically and to address its deficiencies is of more recent origin. Many modern commentators, for example, rely on the tripartite quality assessment framework developed by Avedis Donabedian in the 1960s. He suggested that health care quality could be measured according to structural, process, or outcome-based criteria.<sup>32</sup> More recently, two Institute of Medicine reports, *To Err is Human*<sup>33</sup> and *Crossing the Quality*

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<sup>30</sup> See, e.g., *In re Adventist Health Sys.*, 117 F.T.C. 224, 273–74 (1994) (“A single emergency room would increase the quality of emergency care.”).

<sup>31</sup> The ENH opinion is not the first hospital merger opinion to discuss quality issues in detail. A 1985 FTC final order requiring a divestiture by the Hospital Corporation of America hospital chain, for example, contains extensive discussion of quality issues. See FTC, *In re Hospital Corp. of America*, Opinion of the Commission, 106 F.T.C. 361, sec. E (1985).

<sup>32</sup> See Avedis Donabedian, *Evaluating the Quality of Medical Care*, 44 MILBANK MEMORIAL FUND Q. 3, 166, 167–69 (1966).

<sup>33</sup> INST. OF MED., *TO ERR IS HUMAN: BUILDING A SAFER HEALTH SYSTEM* (2000).

Chasm,<sup>34</sup> have significantly increased awareness of quality problems. At the same time, technological development has facilitated the measurement of quality and the dissemination of information about quality to health care providers, health care regulators, and the marketplace.<sup>35</sup> Many providers have turned their attention to quality improvement activities, and a variety of entities have begun to study and track quality improvement.<sup>36</sup> The discussion of health care quality in the ENH case provides a lens through which to examine the promise of and challenges facing what this article refers to as the “quality improvement movement,” the amalgamation of approaches taken in recent years to try to improve health care quality.

Third, the opinion raises the challenging question of how to incorporate quality into merger analysis. Improved abilities to assess quality, enhanced awareness of quality deficiencies, and greater dissemination of information about quality could magnify the role of health care quality in provider competition and increase the urgency of efforts to determine how health care quality arguments should be incorporated into merger analysis. The ENH opinion asks, for example, whether quality should be considered as part of the competitive effects analysis, as part of the efficiencies analysis, or as an affirmative defense.<sup>37</sup> In addition, the appeals briefs of the parties and the briefs of the amicus curiae dispute the role that merger-specificity should play in the antitrust analysis.<sup>38</sup> If health

<sup>34</sup> INST. OF MED., *CROSSING THE QUALITY CHASM: A NEW HEALTH SYSTEM FOR THE 21ST CENTURY* (2001).

<sup>35</sup> See Kristin Madison, *Regulating Health Care Quality in an Information Age*, 40 U.C. DAVIS L. REV. 1577, 1579–81 (2007).

<sup>36</sup> See, e.g., THE JOINT COMMISSION, *IMPROVING AMERICA’S HOSPITALS: A REPORT ON QUALITY AND SAFETY*, Executive Summary (2007), available at <http://www.jointcommissionreport.org/print.aspx?print=1> (reporting that hospitals improved on a variety of health care quality measures between 2002 and 2005).

<sup>37</sup> See ENH Initial Decision, *supra* note 2, at Part III.C.2.b(1). For the purposes of its analysis, the court accepted ENH’s argument that quality should be considered in the competitive effects analysis. *Id.* (“Respondent, however, argues that the quality of care should be analyzed as a procompetitive justification under the competitive effects analysis, RB 71-72, and the Court will treat it as such.”).

<sup>38</sup> See *In re* Evanston, Respondent’s Brief in Reply and Opposition to Cross-Appeal (March 22, 2006) [hereinafter Respondent’s Brief], at Introduction and Summary, 7, available at <http://www.ftc.gov/os/adjpro/d9315/060322respbrieffoppccrossappl.pdf>. (“Complaint Counsel, like the ALJ, attempts to place on Respondent the burden of proving a negative, namely, that the many quality improvements that ENH implemented and financed at HPH would not have occurred absent the merger. But Complaint Counsel cites no legal authority requiring that a defendant prove a negative to establish that quality improvements implemented and financed by the acquiring company were merger-specific.”); *In re*

care quality becomes easier to measure, health care quality-related arguments are likely to appear more often in merger litigation, and courts will have to confront these questions more frequently.

This article will explore each of these three dimensions of the opinion. It begins by considering why quality is a relevant consideration in merger cases. Drawing upon both the general antitrust literature and the health care services literature, Part II catalogs mechanisms by which hospital mergers might affect health care quality and describes the extent to which empirical evidence has demonstrated such effects. Part III then takes a look at some of the specific quality arguments in the ALJ's ENH opinion and subsequent briefs, not to evaluate their merits, but instead to demonstrate how these arguments illustrate the promise and challenges of the quality improvement movement. Part IV builds on Part III by examining how the quality movement might affect antitrust analysis of hospital mergers. Finally, Part V describes the role of health care quality in the ENH opinion's antitrust analysis and briefly discusses the implications of alternative analytical approaches for encouraging further advances in quality improvement.

## II. HOSPITAL MERGERS AND HEALTH CARE QUALITY

Competition produces many benefits for consumers. In their efforts to attract customers, firms may reduce their prices. All else equal, the more competitors that exist in the market, the less likely that a firm will be able to avoid this competitive dynamic; firms facing numerous competitors will find it difficult to unilaterally increase prices or maintain an agreement with other firms to increase prices.<sup>39</sup> As competition drives prices lower, firms must find ways to produce their goods or services more efficiently or they will sacrifice profits. As the Department of Justice and Federal Trade Commission explain in their Horizontal Merger Guidelines ("Merger Guide-

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Evanston, Brief of American Hospital Association in Support of Evanston Northwestern Healthcare Corporation 21 (Dec. 16, 2005), *available at* <http://www.ftc.gov/os/adjpro/d9315/051216moahfileamicus.pdf> ("[C]ontrary to the ALJ's conclusion, the analysis of competitive effects under Section 7 does not mandate that quality improvements be merger-specific . . .").

<sup>39</sup> Cf. 4 PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶ 910 (2d ed. 2006) (explaining how mergers lessen competition).

lines”), “Competition usually spurs firms to achieve efficiencies internally.”<sup>40</sup>

Mergers can interfere with this competitive process by facilitating both unilateral and coordinated exercises of market power,<sup>41</sup> increasing consumer prices and reducing pressure on managers to find more efficient methods of production. Thus, by prohibiting acquisitions “where the effect of such acquisition may be substantially to lessen competition, or tend to create a monopoly,” Section 7 of the Clayton Act can limit the most problematic mergers, preserving the benefits of competition. But neither it nor other antitrust statutes prohibit all mergers, and with good reason: Mergers can help to increase productive efficiency and, ultimately, the vitality of market competition. An evaluation of the net impact of mergers must weigh the dangers of merger-related market power against the benefits of merger-related efficiency gains.

What form do efficiency gains take? As the Merger Guidelines acknowledge, mergers can allow firms to produce goods or services at lower cost than either participating firm could individually.<sup>42</sup> The lower the total costs of production, the more benefit to society. In their treatise, Phillip Areeda and Herbert Hovenkamp catalog many of the mechanisms by which mergers can help achieve efficiencies. For example, by combining production, two firms may be able to manufacture each unit more cheaply<sup>43</sup> or make more productive use of research and development spending.<sup>44</sup> Mergers could also reduce the cost of acquiring capital,<sup>45</sup> reduce duplicative overhead spending on services such as management and accounting,<sup>46</sup> or permit each firm to take advantage of the superior resources available at the other, such as better management or superior production facilities.<sup>47</sup> As Areeda and Hovenkamp argue, some of these benefits may

<sup>40</sup> See Dep’t of Just. & Fed. Trade Comm’n, Horizontal Merger Guidelines § 4 (rev. ed. 1997), available at [http://www.usdoj.gov/atr/public/guidelines/horiz\\_book/hmg1.html](http://www.usdoj.gov/atr/public/guidelines/horiz_book/hmg1.html) [hereinafter *Merger Guidelines*].

<sup>41</sup> See AREEDA & HOVENKAMP, *supra* note 39, ¶ 910 (explaining how mergers lessen competition).

<sup>42</sup> See *Merger Guidelines*, *supra* note 40, § 1.5.

<sup>43</sup> See 4A PHILLIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW* ¶ 975b (2d ed. 2006) (“Plant size economies”).

<sup>44</sup> See *id.* ¶ 975g (“Economies in research and development”).

<sup>45</sup> See *id.* ¶ 975h (“Access to capital; risk reduction”).

<sup>46</sup> See *id.* ¶ 975j (“‘Overhead’ economies”).

<sup>47</sup> See *id.* ¶ 975k (“Complementary resources”).

offer better justifications for mergers than others.<sup>48</sup> Their magnitude may vary, and they sometimes may be achieved through purchase in the marketplace (such as by contracting with an accounting firm or hiring a better manager), thus avoiding the competitive downsides of mergers. Nevertheless, they are all still examples of ways that mergers could increase efficiency and contribute to a competitive marketplace.

While the discussion so far has focused on mergers' impact on prices and production costs, mergers can affect quality too. One way to think about quality is as a sort of counterpart to price. Firms could seek to out-compete one another by selling a higher-quality product at the same price as its competitors, rather than by selling the same product at a lower price. More competition might lead to higher quality; mergers that impede competition might reduce it.

Mergers can drive quality higher through the efficiencies they achieve. Merger-related efficiencies can enable a firm to produce the same product at a lower cost, or to produce a better-quality product at lower cost than would be possible without the merger. A merger may result in a more efficient research and development process that promotes the development of higher-quality products, reduce the cost of capital needed to create more technologically sophisticated products, or offer each firm better access to the skills, knowledge, or other resources that facilitate the delivery of high-quality goods or services. As the Merger Guidelines explain, "Efficiencies generated through merger can enhance the merged firm's ability and incentive to compete, which may result in lower prices, improved quality, enhanced service, or new products."<sup>49</sup>

In theory, a merger that generates efficiencies could have just one of these results, or all of these results. Whether a procompetitive merger results in lower prices, higher quality, or both, depends on the nature of the efficiencies and of the market, including the nature of consumer demand. Efficiencies may reduce the cost of manufacturing the previous product, thus enabling a post-merger firm to sell the same product for less, or reduce the manufacturing cost of a higher-quality product so that it is no more costly than the previous product, enabling the firm to sell a better product for the same price.

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<sup>48</sup> See *id.* ¶ 975. They suggest that the latter group of efficiencies should not support an efficiency defense in antitrust cases. See *id.*

<sup>49</sup> *Merger Guidelines*, *supra* note 40, § 4. For a discussion of the role of efficiency arguments in antitrust analyses, see Peter J. Hammer, *Questioning Traditional Antitrust Presumptions: Price and Nonprice Competition in Hospital Markets*, 32 U. MICH. J.L. REFORM 727, 747-753, 780 (1999).

Either result would benefit society more than the alternative of two independent firms selling the previous product at the previous price. But efficiencies might also make possible the production of a new, higher-quality product that consumers would prefer to the previous product (and competitors' products) even if higher production costs meant that it had to be sold at a higher price. Mergers could, therefore, result in products that are higher-priced, but, nevertheless, benefit society because of their higher quality. In the context of health care, while some purchasers might prefer to obtain the previous quality of care at a lower price, it certainly would not be surprising if many purchasers would prefer higher-quality services,<sup>50</sup> even if obtaining them required paying more.

Hospitals are no different from other types of service providers in that mergers could potentially lead to provision of higher-quality services. The potential mechanisms for quality increases are many.<sup>51</sup> Acquiring hospitals, for example, may bring both financial resources and management expertise to the hospitals they acquire, permitting an expansion of service offerings.<sup>52</sup> Expansions increase quality in the sense that patients gain access to a broader array of services.

Mergers may also alter the average quality of care received by patients by redirecting patient flows. A merged hospital organization could choose to concentrate service offerings in the higher-quality of its facilities, increasing quality for patients of the merged organization.<sup>53</sup> In addition, some studies have found a relationship between procedure volumes and patient outcomes; if the merger ex-

<sup>50</sup> This is particularly true, of course, if a patient selecting the service is covered by insurance that insulates that patient from the service's cost. This article sets aside many of the complexities introduced by third-party insurance and other market failures for the sake of brevity. For discussions of health care market failures and their implications for antitrust analysis, see generally Thomas L. Greaney, *Quality of Care and Market Failure Defenses in Antitrust Health Care Litigation*, 21 CONN. L. REV. 605 (1989); Peter J. Hammer, *Antitrust Beyond Competition: Market Failures, Total Welfare, and the Challenge of Intramarket Second-Best Tradeoffs*, 98 MICH. L. REV. 849 (2000).

<sup>51</sup> For a brief discussion of potential effects of hospital affiliations on patient treatment, see Kristin Madison, *Multihospital System Membership and Patient Treatments, Expenditures, and Outcomes*, 39 HEALTH SERVICES RES. 749, 750–53 (2004).

<sup>52</sup> Cf. Michele Bitoun Blecher, *Wall Street Start, Main Street Savvy*, 72 HOSPS. & HEALTH NETWORKS 38, 40 (1998) (describing improvements made by major hospital chain in hospitals it acquires).

<sup>53</sup> See Madison, *supra* note 51, at 750–53 (describing ways that affiliations can affect quality). Cf. Robert S. Huckman, *Hospital Integration and Vertical Consolidation: An Analysis of Acquisitions in New York State*, 25 J. HEALTH ECON. 58, 61 (2006) (suggesting that in a market characterized by mergers, there may be business stealing that “results in the movement of patients between hospitals with different levels of underlying quality or cost . . . .

pands patient volumes for hospital providers, and higher volumes contribute to improved quality of care, then the merger will result in higher-quality care.<sup>54</sup> On the other hand, this same reasoning suggests that if mergers expand service offerings, they might reduce the quality of care by dispersing patients across facilities.

A merger might also increase quality by facilitating sharing of experience and expertise among hospital managers and hospital medical staffs, both in the provision of medical care and in quality improvement techniques. Research has demonstrated that one way to speed the adoption of beneficial therapies is through peer influence. For example, one study showed that the involvement of hospital “opinion leaders” in promoting therapies increased their rate of adoption.<sup>55</sup> If so, a merger that increases the influence of existing opinion leaders by expanding the size of hospital staff could increase the quality of medical care delivered. Similarly, if one of the participating hospitals has developed effective quality improvement mechanisms, a merger might facilitate their implementation in partner hospitals. While it is certainly possible to work internally to improve quality or to hire outside consultants to offer guidance, the closer relationships that mergers bring may allow information and management systems to transfer more easily than they otherwise would.

Another way in which mergers might improve hospital quality is by accelerating adoption of information technologies. Electronic medical records, computerized provider order entry, and other electronic systems can improve the safety and quality of medical care through a variety of mechanisms, including faster access to patients’ medical histories, clinical decision support systems, and alerts to po-

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[P]atients may move from hospitals that have highly skilled cardiac surgeons to those that have less-skilled surgeons.”)

<sup>54</sup> See Huckman, *supra* note 53, at 61, and sources cited therein (describing the volume-outcome relationship); see also Madison, *supra* note 51, at 750–53 (same). A recent article notes that if higher volumes lead to better outcomes, “Antitrust analysis of hospital mergers should probably consider any improved outcomes when evaluating the impact of the merger.” Martin Gaynor et al., *The Volume-Outcome Effect, Scale Economies, and Learning-by-Doing*, 95 AM. ECON. REV. 243, 243 (2005). Using California data on bypass surgery, the study shows that higher hospital volumes do generate better outcomes. *Id.* at 246.

<sup>55</sup> See Stephen B. Soumerai et al., *Effect of Local Medical Opinion Leaders on Quality of Care for Acute Myocardial Infarction*, 279 JAMA 1358, 1358 (1998) (Based on a randomized controlled trial, “Working with opinion leaders and providing performance feedback can accelerate adoption of some beneficial AMI therapies.”).

tentially dangerous drug interactions.<sup>56</sup> Despite these potential benefits, hospitals have not been quick to implement new information systems. Implementing such systems can be both very costly and very complex, given concerns about privacy, the possibility of introducing new errors, difficulties in achieving interoperability among information systems, and other issues.<sup>57</sup> While empirical evidence of adoption rates of electronic health records and other systems in hospitals is limited,<sup>58</sup> recent studies have put the prevalence of such systems at around twenty percent.<sup>59</sup>

Mergers cannot help surmount all of the potential barriers to information technology adoption, but they may help with some of them. Some systems may be characterized by economies of scale; the marginal costs of providing information services may decline as more physicians and patients are served by the system, a likely result of hospital mergers. Hospital information systems may also be subject to network effects.<sup>60</sup> Particularly for electronic medical records, each additional physician that uses a particular system increases its value to other physicians and to patients because information can be more easily shared among providers.

Mergers are certainly not the only way for hospitals or their staff physicians to take advantage of electronic systems. For example, providers could rely on Internet-based systems or other technology supplied and maintained by outside vendors. The Bush administration has supported the development of regional health information organizations through which providers would be able to share medical record information even if they maintained their

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<sup>56</sup> See, e.g., Richard Hillestad et al., *Can Electronic Medical Record Systems Transform Health Care? Potential Health Benefits, Savings, and Costs*, 24 HEALTH AFF. 1103, 1108–14 (2005) (discussing benefits of electronic medical record systems).

<sup>57</sup> See, e.g., *id.* at 1104 (“Barriers to adoption include high costs, lack of certification and standardization, concerns about privacy, and a disconnect between who pays for EMR systems and who profits from them.”).

<sup>58</sup> See Ashish K. Jha, *How Common Are Electronic Health Records in the United States? A Summary of the Evidence*, 25 HEALTH AFF. w496, w502–w503 (2006) (describing limitations of survey data about adoption of electronic health records).

<sup>59</sup> See *id.* at w503 (“The Healthcare Information and Management Systems Society (HIMSS) 2005 survey found that 17 percent of hospitals have a fully integrated EHR.”); Hillestad et al., *supra* note 56, at 1104 (reporting that twenty to twenty-five percent of hospitals have adopted electronic medical systems).

<sup>60</sup> See, e.g., Brett M. Frischmann & Mark A. Lemley, *Spillovers*, 107 COLUM. L. REV. 257, 261 (2007) (defining markets subject to network effects as “markets in which the value the consumer places on the good increases as others use the good” and providing references to useful discussions of network effects).

own separate systems.<sup>61</sup> However, a recent study suggests that the competitive environment surrounding hospitals, physicians, and health plans significantly impedes the cooperation necessary to develop regional health information organizations.<sup>62</sup> Given these factors, hospital mergers may be a more effective route to electronic medical records development.

Only a few empirical studies have systematically examined the link between hospital competition and health care quality.<sup>63</sup> These studies do not generally attempt to discern the mechanisms by which individual mergers affect the delivery of health care services; they instead examine the relationship between hospital concentration or hospital mergers in general and selected measures of health care quality. For example, one study found that in the early to mid-1990s, mortality rates for Medicare beneficiaries with acute myocardial infarctions were higher in areas characterized by less hospital competition.<sup>64</sup> Although the focus of this study was levels of market

<sup>61</sup> See Joy M. Grossman et al., *Hospital-Physician Portals: The Role of Competition in Driving Clinical Data Exchange*, 25 HEALTH AFF. 1629, 1629 (2006) (describing the Bush administration's health information technology initiatives). See generally Nicolas P. Terry & Leslie P. Francis, *Ensuring the Privacy and Confidentiality of Electronic Health Records*, 2007 U. ILL. L. REV. 681 (2007) (describing recent electronic health record initiatives).

<sup>62</sup> See Grossman et al., *supra* note 61, at 1634–35 (describing barriers to regional information exchange).

<sup>63</sup> For summaries of some of these studies, see Greenberg, *supra* note 23, at 34–35. See generally Martin Gaynor, *What Do We Know About Competition and Quality in Health Care Markets?* (Nat'l Bureau of Econ. Research, Working Paper No. 12301, 2006). For summaries of studies on the effects of hospital mergers on costs and prices, see Martin Gaynor & Deborah Haas-Wilson, *Change, Consolidation, and Competition in Health Care Markets*, 13 J. ECON. PERSPECTIVES 141, 152 (1999) (discussing efficiencies hospitals can gain from consolidation); Robert Town et al., *The Welfare Consequences of Hospital Mergers* 7–8 (Nat'l Bureau of Econ. Research, Working Paper No. 12244, 2006) (concluding that “[r]esearch on the relationship between hospital concentration and prices generally finds that an increase in hospital concentration is correlated with higher prices for inpatient care, and many interpret this correlation as a causal relationship”). In their own study, Town et al. conclude that hospital mergers between 1990 and 2001 reduced consumer surplus by \$42.2 billion, mostly through a transfer from consumers to hospitals; as a result, mergers caused little loss in total net welfare. See *id.* at 33–34.

<sup>64</sup> Daniel P. Kessler & Mark B. McClellan, *Is Hospital Competition Socially Wasteful?*, 115 Q. J. ECON. 577, 601–02 (2000). Another study finds that competition has little impact on the health outcomes of less severely ill patients, but improves outcomes for the more severely ill; after evaluating its results for both health outcomes and expenditures, it concludes that competition is welfare-enhancing. Daniel P. Kessler & Jeffrey J. Geppert, *The Effects of Competition on Variation in the Quality and Cost of Medical Care*, 14 J. ECON. & MGMT. STRATEGY 575, 575 (2005). A third study links higher hospital market share and market concentration with lower quality, as measured by quality variables such as adverse complications and wound infections. See Nazmi Sari, *Do Competition and Managed Care Improve Quality?*, 11 HEALTH ECON. 571, 580 (2002) (“For wound infections, the impact of a hypothetical merger is even higher [than for adverse effects and iatrogenic complications]: 10% increase in mar-

competition rather than the impact of mergers, these results suggest that mergers might worsen health outcomes for patients served by hospitals in the merging hospitals' market area. One of the few studies that specifically examined the impact of hospital mergers concluded based on California hospital data from the early to mid-1990s that mergers had little impact on inpatient mortality, but that some types of consolidation were associated with higher cardiac patient hospital readmission rates.<sup>65</sup> A group of prominent researchers summarized the existing literature on hospital consolidation as follows: "While the evidence is limited and mixed, the majority of studies find that hospital consolidation lowers hospital quality."<sup>66</sup> On the whole, these studies suggest that there is reason to doubt that hospital mergers will increase the quality of care delivered to patients. In other words, while theory points to numerous ways in which mergers could improve quality, the evidence shows that they have so far failed to improve quality much in practice.

If the evidence that mergers improve quality is limited, then it seems that consideration of quality issues should be correspondingly circumscribed in antitrust analyses. And yet quality arguments played a significant role in the ENH case, and, as Part IV explains, may play an even more important role in future merger cases. There are several reasons why the limited evidence of mergers' benefits did not and should not preclude careful analysis of quality issues in individual cases. First, an observation that hospital mergers in general fail to improve quality does not imply that mergers never improve quality. Some mergers may very well increase hospital quality, even if the majority of mergers do not. Second, the studies of the effects of hospital competition are generally quite limited, examining only a few measures of health care quality for a narrow range of conditions.<sup>67</sup> Broader studies might show different

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ket share increases wound infections by 8.3%."). The studies are not unanimous, however, in finding that competition is associated with better outcomes. For example, one study of California mortality rates for pneumonia and acute myocardial infarction finds that competition for HMO patients reduces mortality but competition for Medicare patients increases mortality. Gautam Gowrisankaran & Robert J. Town, *Competition, Payers and Hospital Quality*, 38 HEALTH SERVICES RES. 1403, 1403 (2003).

<sup>65</sup> Vivian Ho & Barton H. Hamilton, *Hospital Mergers and Acquisitions: Does Market Consolidation Harm Patients?*, 19 J. HEALTH ECON. 767, 787-88 (2000).

<sup>66</sup> Claudia H. Williams, William B. Vogt & Robert Town, *How Has Hospital Consolidation Affected the Price and Quality of Hospital Care?*, Robert Wood Johnson Foundation Policy Brief No. 9 (Feb. 2006), available at [http://www.rwjf.org/publications/synthesis/reports\\_and\\_briefs/pdf/no9\\_policybrief.pdf](http://www.rwjf.org/publications/synthesis/reports_and_briefs/pdf/no9_policybrief.pdf).

<sup>67</sup> See, e.g., Kessler & McClellan, *supra* note 64 (focusing on mortality and hospital readmission rates of elderly patients with acute myocardial infarction).

results. Finally, most of the studies examining the effects of concentration predate the recent industry-wide focus on improving health care quality. As a result, the mechanisms by which mergers could improve quality in the 21st century differ from those that could have improved quality in the 20th century. For all of these reasons, it remains worthwhile to take a closer look at quality improvement arguments in hospital merger cases, including the ENH case.

### III. ENH AS A LENS FOR EXAMINING QUALITY IMPROVEMENT

The ALJ in the ENH case concluded that “[c]ontemporaneous evidence demonstrates that ENH sought and achieved substantial price increases as a result of the merger”<sup>68</sup> and that “ENH significantly increased prices relative to other hospitals’ price increases.”<sup>69</sup> But merger-related price increases do not necessarily imply that the merger was anticompetitive. Increased market power is only one of several factors that might lead a merged entity to increase prices;<sup>70</sup> an alternative explanation for an increase in price is an increase in quality.<sup>71</sup> As explained in Part II, mergers could promote competition by lowering prices, but they could also benefit consumers by leading to the provision of higher-quality services at higher prices.

ENH in fact argued that “the quality improvements at Highland Park justify ENH’s increased prices and outweigh any anticompetitive effects of the merger.”<sup>72</sup> The ALJ’s opinion and subsequent briefs provide a sketch of these quality-related arguments. This Part explores these arguments and the insights they offer into the current state of the quality improvement movement. While it does not attempt to be comprehensive in its coverage, subpart A highlights a number of the quality-related arguments in the case. Subpart B shows how these arguments demonstrate the pro-

<sup>68</sup> ENH Initial Decision, *supra* note 2, at Part III.C.1.b(2).

<sup>69</sup> *Id.* at Part III.C.1.b(3).

<sup>70</sup> For example, the opinion noted that an expert in the case had ruled out six possible explanations for price increases: “increases in cost, changes in regulation, increases in demand, changes in patient mix, changes in customer mix, and changes in teaching intensity.” *Id.* at Part III.C.1.b(4).

<sup>71</sup> The ALJ considered both the higher-quality explanation and a “learning-about-demand” explanation; under the latter theory, Evanston learned that its pre-merger prices had been below the competitive level, and therefore raised prices post-merger. The ALJ rejected both theories. *See id.* at III.C.2.a (exploring the learning-about-demand explanation in detail); *id.* at Part III.C.1.b(4) (rejecting quality and learning-about-demand explanations).

<sup>72</sup> *Id.* at Part III.C.2.b.

gress of the quality improvement movement, while subpart C examines how these arguments and the responses they elicited demonstrate the challenges that remain in achieving quality improvement goals.

#### A. ENH's Quality Improvement Efforts

The ALJ's opinion and the subsequent briefs in the ENH case discuss a variety of ENH actions that could potentially have improved quality. Some contributed to the infrastructure necessary to support efforts to improve and expand hospital services, while others were directed specifically toward improving the delivery of care.

One action belonging in the former category was ENH's substantial financial investment in Highland Park and its services. As described in Part II, a merger may benefit merging parties by facilitating access to capital needed to improve efficiency; in its appeal brief, ENH argued that Highland Park lacked the financial strength to engage in quality improvement activities.<sup>73</sup> In its brief supporting ENH, the Advisory Board similarly suggested that Highland Park had "too little operating income to fund the capital and skilled staffing investments required to provide the high-quality acute care services vital to the surrounding community," and that a merger with a better-capitalized hospital could address the problem.<sup>74</sup> The ALJ's opinion found that ENH indeed invested \$120 million in Highland Park after the merger.<sup>75</sup> Such an investment could support a variety of ENH efforts to increase quality.

The ALJ's opinion devoted a significant amount of its analysis to the most visible of the quality improvements presumably purchased with this investment: facility and equipment upgrades and the introduction of new services.<sup>76</sup> For example, ENH created new interventional cardiology and cardiac surgery programs.<sup>77</sup> ENH has described these programs as the first of their kind in the hospital's

<sup>73</sup> *In re* Evanston, Respondent's Corrected Appeal Brief, *supra* note 5, at Statement of Facts, 8-9; *id.* at Part II.B.

<sup>74</sup> *In re* Evanston, Brief of Amicus Curiae, The Advisory Board Company in Support of Evanston Northwestern Healthcare Corp. 1-2 (Dec. 16, 2005), available at <http://www.ftc.gov/os/adjpro/d9315/051216moadvisoryboardfileamicus.pdf>.

<sup>75</sup> ENH Initial Decision, *supra* note 2, at Part III.C.2.b(2)(a).

<sup>76</sup> *Id.* at Part III.C.2.b(2)(d).

<sup>77</sup> *Id.* at Part III.C.2.b(2)(d)(xi)-(xii).

area,<sup>78</sup> and noted that interventional cardiology programs are rarely offered by community hospitals.<sup>79</sup> The introduction of new or expanded services promotes competition by giving patients more choices. A new service will put competitive pressure on other providers of similar services and enable some patients to receive services closer to home, a convenience that could be considered a dimension of quality. In theory, this expansion of services could also improve patient health outcomes. ENH's appeal brief argues that "[p]re-merger, half of all patients initially admitted to HPH with a heart attack were transferred to another hospital—a process that put their lives at risk."<sup>80</sup>

Another ENH post-merger infrastructure improvement was the installation of a software system with computerized physician order entry (CPOE) capabilities.<sup>81</sup> ENH adopted the Epic system "in order to integrate records from health care providers who practiced at all three ENH hospitals, at the faculty practice medical group, and at all the affiliated physician practices that were willing to participate."<sup>82</sup> In addition to integrating records and supporting CPOE, it also offered clinical decision support systems.<sup>83</sup> As described in Part II, these sorts of computer systems have the potential to improve quality. Mergers can help merging entities take maximum advantage of such systems because they allow more providers to exchange information more easily. ENH has incorporated arguments about beneficial network effects into its appeal brief: "By bringing HPH physicians and patients into the Epic system, the merger thus enhanced Epic's value to the entire ENH community and raised the quality of care throughout the system."<sup>84</sup>

ENH argued that it had improved quality through its changes in staffing, in addition to its upgrades to facilities, technology, and equipment. For example, the post-merger Highland Park adopted

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<sup>78</sup> Evanston Northwestern Healthcare, *Keeping the Promise*, available at <http://www.enh.org/uploadedfiles/promise.pdf> (stating that it had established "the first cardiac surgery program and interventional cardiology program in Lake County") (last visited Sept. 3, 2007).

<sup>79</sup> *In re* Evanston, Respondent's Corrected Appeal Brief, *supra* note 5, at Statement of Facts, 15.

<sup>80</sup> *Id.*

<sup>81</sup> See The Leapfrog Group, Factsheet, Computer Physician Order Entry, available at [http://www.leapfroggroup.org/media/file/Leapfrog-Computer\\_Physician\\_Order\\_Entry\\_Fact\\_Sheet.pdf](http://www.leapfroggroup.org/media/file/Leapfrog-Computer_Physician_Order_Entry_Fact_Sheet.pdf) (last visited Sept. 3, 2007).

<sup>82</sup> ENH Initial Decision, *supra* note 2, at Part III.C.2.b(2)(e)(i).

<sup>83</sup> *Id.*

<sup>84</sup> *In re* Evanston, Respondent's Corrected Appeal Brief, *supra* note 5, at Part II.B.2.

an intensivist program,<sup>85</sup> which usually involves placing board-certified physicians trained in critical care medicine in hospital intensive care units.<sup>86</sup> Studies have demonstrated an association between the use of intensivists and lower mortality rates.<sup>87</sup>

ENH's changes in staffing and management practices may have also created an environment more conducive to quality improvement. ENH alleged that the pre-merger Highland Park had already identified certain quality deficiencies<sup>88</sup> but that it was "unwilling to address substantial quality problems in key clinical areas as a stand-alone hospital"<sup>89</sup> and faced "significant structural and organizational barriers" to quality improvement.<sup>90</sup> It argued that "[m]oney alone was insufficient to transform" Highland Park, and that "[c]linical integration and a more collaborative culture were necessary to achieve" the quality improvements allegedly associated with the merger.<sup>91</sup>

ENH responded to these problems by, among other things, "overhaul[ing] the system of physician governance by integrating the medical staffs and replacing part-time, private-practice physicians with full-time clinical chairmen" and "terminat[ing] inappropriate practices and procedures."<sup>92</sup> It also "initiated physician discipline proceedings."<sup>93</sup> After the merger, physicians in some departments began to rotate through all three ENH campuses, and "about sixty Highland Park physicians obtained appointments at Northwestern medical school."<sup>94</sup> These arguments are consistent with the theory discussed in Part II that suggests that mergers can influence the quality of care by altering physician leadership and encouraging interaction among physicians.

ENH also took a more direct approach to improving quality: issuing guidelines for the provision of care. Specifically, ENH states

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<sup>85</sup> ENH Initial Decision, *supra* note 2, at Part III.C.2.b(2)(c)(xiv).

<sup>86</sup> See The Leapfrog Group, Factsheet, ICU Physician Staffing (IPS), available at [http://www.leapfroggroup.org/media/file/Leapfrog-ICU\\_Physician\\_Staffing\\_Fact\\_Sheet.pdf](http://www.leapfroggroup.org/media/file/Leapfrog-ICU_Physician_Staffing_Fact_Sheet.pdf) (describing role of intensivists) (last visited Sept. 3, 2007).

<sup>87</sup> See *id.* (describing relevant studies).

<sup>88</sup> ENH Initial Decision, *supra* note 2, at Part III.C.2.b(2)(d)(ii).

<sup>89</sup> *In re* Evanston, Respondent's Brief, *supra* note 38, at Part III.B.3.a.

<sup>90</sup> *In re* Evanston, Respondent's Corrected Appeal Brief, *supra* note 5, at Part II.B.3.

<sup>91</sup> *Id.*

<sup>92</sup> *Id.* at Statement of Facts, 12; see also ENH Initial Decision, *supra* note 2, at Part III.C.2.b(2)(d)(ii) (describing ENH's post-merger actions).

<sup>93</sup> ENH Initial Decision, *supra* note 2, at Part III.C.2.b(2)(d)(i).

<sup>94</sup> *Id.* at Part III.C.2.b(2)(e)(ii).

that after the merger, it implemented new “multi-disciplinary clinical pathways – data-driven treatment plans aimed at improving patient care.”<sup>95</sup>

In short, the ENH case presents many possible routes to quality improvement potentially relevant to an antitrust analysis: the provision of financial resources, the expansion of offered services, the implementation of computer systems that could support improved delivery of care, the alteration of staffing patterns and management practices to promote higher-quality care, and the development of new protocols for delivering care. At the same time, these examples of quality improvement and the discussion they provoked provide insight into the quality improvement movement in general.

## B. The Promise of the Quality Movement

The ENH case illustrates the promise of the quality improvement movement in two main ways. The first is through the kinds of steps that ENH took to improve quality. While some of ENH’s quality arguments involve traditional, structural approaches to improving quality—hospitals have long tried to attract patients or physicians by increasing quality in the form of upgraded facilities or equipment or new services, for example<sup>96</sup>—other reforms exemplify more innovative approaches to improving the delivery of health care. The development of clinical pathways is an early example of such an approach. The creation and adoption of evidence-based practice guidelines as a mechanism for improving health care quality began to accelerate in the 1980s and 1990s and continues today.<sup>97</sup> The implementation of an intensivist program is a step encouraged by the Leapfrog Group, a national leader in the quality improve-

<sup>95</sup> *In re* Evanston, Respondent’s Corrected Appeal Brief, *supra* note 5, at Statement of Facts, 14. On clinical pathways and practice guidelines, see, for example, Lars Noah, *Medicine’s Epistemology: Mapping the Haphazard Diffusion of Knowledge in the Biomedical Community*, 44 ARIZ. L. REV. 373, 416–429 (2002) (discussing practice guidelines); Nicolas P. Terry, *An EHealth Diptych: The Impact of Privacy Regulation on Medical Errors and Malpractice Litigation*, 27 AM. J.L. & MED. 361, 386 (2007) (“In many cases, institutions will take the initiative and convert such data into explicit norms by adopting clinical pathways.”).

<sup>96</sup> This sort of competition has sometimes been criticized as a “medical arms race” that reduces welfare. See Hammer, *supra* note 50, at 864 (“Nonprice competition has been condemned by some as a medical arms race, and praised by others for creating incentives to improve quality and provide better care to patients, for example, new technology, better doctors, improved facilities.”).

<sup>97</sup> See David M. Eddy, *Evidence-Based Medicine: A Unified Approach*, 24 HEALTH AFF. 9, 11–13 (2005) (describing development of practice guidelines).

ment movement.<sup>98</sup> So is the adoption of CPOE.<sup>99</sup> In the last few years, countless academic, policy, and professional articles have described the potential safety and quality benefits associated with adoption of various types of electronic information systems.<sup>100</sup> The argument that CPOE advances health care quality is very much in step with today's quality improvement movement.<sup>101</sup>

The second way in which the ENH case illustrates the promise of the quality improvement movement is through the sorts of evidence the parties discuss in trying to establish whether ENH's actions in fact improved quality. As described in Part I,<sup>102</sup> many previous hospital merger opinions contained very circumscribed discussions of quality. Professors Hammer and Sage found that health care outcome statistics appeared in the antitrust opinions they reviewed only once as a measure of quality<sup>103</sup> and that courts using "firm-specific criteria take clinical structure into account far more often than clinical process or outcomes."<sup>104</sup> Arguments about structural quality indicators such as the nature of equipment or facilities are more common than those about other kinds of indicators, perhaps in part because of the difference in ease of proof of their existence.<sup>105</sup> Many courts have considered experts' opinions of health care quality; numerous antitrust opinions have cited physicians' assessments of the quality of care delivered post-merger.<sup>106</sup> One court even relied on its own quality assessment based on a facility tour.<sup>107</sup>

<sup>98</sup> See The LeapFrog Group, Fact Sheet, available at [http://www.leapfroggroup.org/media/file/leapfrog\\_factsheet.pdf](http://www.leapfroggroup.org/media/file/leapfrog_factsheet.pdf) (describing LeapFrog's patient safety initiatives, including intensivist programs) (last visited Sept. 3, 2007).

<sup>99</sup> See *id.*

<sup>100</sup> See, e.g., Richard Hillestad et al., *supra* note 56, at 1107–14 (describing benefits of various electronic systems, including CPOE).

<sup>101</sup> But see *infra* Part III.C (acknowledging that many actions thought to potentially improve quality ultimately may fail to do so).

<sup>102</sup> See *supra* text accompanying notes 23–30.

<sup>103</sup> Hammer & Sage, *supra* note 19, at 590.

<sup>104</sup> *Id.* at 623.

<sup>105</sup> See *id.* (The authors find that a number of health care antitrust opinions had discussed adequacy of physical facilities and that "bias in favor of structural concerns is not surprising because such characteristics are easier to detect and verify.").

<sup>106</sup> See, e.g., *In re Adventist Health Sys.*, 117 F.T.C. 224, Findings of Fact 139, 151 (1994); see also Hammer & Sage, *supra* note 19, at 610 n.164 (In one case, "the court relied heavily on aspirational statements by physicians associated with the defendant hospitals that post-merger recruitment of specialists would decrease morbidity and mortality rates.").

<sup>107</sup> See Hammer & Sage, *supra* note 19, at 610 n.164 ("[T]he court relied upon its own impressions obtained from a personal tour of the defendant hospital facilities. While not provid-

By contrast, the ALJ's opinion noted that the parties presented "extensive data on outcomes, structure, process measures, and patient satisfaction,"<sup>108</sup> and attempted to incorporate these measures into its analysis. Unfortunately, many of the references to specific quality measures have been redacted in the public versions of the opinion and subsequent filings, but the evidence included measures such as the provision of aspirin and beta-blockers to patients upon hospital admission and discharge.<sup>109</sup> The development and dissemination of such measures has been a very important feature of the quality improvement movement,<sup>110</sup> and health care quality advocacy organizations continue to develop these measures.<sup>111</sup> The use of such measures in the ENH case is a sign of their increasing role in hospital operations and, more generally, the success of advocacy for such measures as a mechanism for improving quality.

### C. The Challenges Facing the Quality Movement

While in many ways the ALJ's opinion and the parties' subsequent briefs illustrate the progress and promise of the quality improvement movement, in other ways their discussion of quality issues illustrates just how much progress remains to be made. This subpart focuses on three challenges facing those trying to improve health care quality: the limitations of quantitative measures of quality, the lack of financial incentives to improve health care quality, and, finally, the sometimes loose connections between quality improvement mechanisms and increases in health care quality.

#### 1. *Limitations on Quality Measures*

While the use of quantitative measures to assess quality is a sign of progress, much work remains to be done before such measures reach their full potential as tools for quality measurement, improvement, and oversight. For example, one of the measures that

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ing much specific analysis, the judge was confident that he knew quality when he saw it.").

<sup>108</sup> ENH Initial Decision, *supra* note 2, at Part III.C.2.b(2)(c).

<sup>109</sup> See *In re Evanston*, Respondent's Brief, *supra* note 38, at Part III.B.2.c (referring to use of heart attack medication); Brief of American Hospital Association, *supra* note 38, at 28 (referring specifically to aspirin and beta-blockers).

<sup>110</sup> See Madison, *supra* note 35, at 1603–13 (describing increasing availability of information about health care quality).

<sup>111</sup> See, e.g., National Quality Forum, <http://www.qualityforum.org> (describing recent activities of organization "created to develop and implement a national strategy for healthcare quality") (last visited Sept. 3, 2007).

the ALJ's opinion relied on was a numeric score calculated by a private accreditation organization, the Joint Commission. The Joint Commission has long played an important role in hospital quality oversight. Most hospitals are Joint Commission-accredited, and Medicare deems Joint Commission-accredited hospitals as complying with its participation requirements.<sup>112</sup> The Joint Commission conducts a regular survey process, including a site visit, which provides a foundation for its accreditation activities.<sup>113</sup> The opinion explained that based on a scoring formula incorporating 1200 elements of hospital performance, the Joint Commission granted Highland Park a score of 96 in 1999 and a score of 94 in 2002.<sup>114</sup> The ALJ concluded that Highland Park did not improve its quality of care during this period, but instead offered excellent care before the merger and maintained its reputation for quality after the merger.<sup>115</sup>

In a brief in support of ENH, the Joint Commission responded to this conclusion as follows: "Different scores in the 90s of two different hospitals or of one hospital over a period of time . . . do not lend themselves to help determine whether one hospital is substantially better or worse or the same than the other or whether the one hospital has become substantially better or worse . . ." <sup>116</sup> Accreditation may ensure that a hospital meets minimum standards, but the process is not designed to distinguish small differences in levels of aggregate quality across time or hospitals. Traditional regulatory and quality monitoring regimes designed to ensure that quality meets a particular standard, such as accreditation or licensure, provide little information about incremental improvements in quality beyond that standard. Those seeking to track quality improvements, whether they are administrators or providers or others assessing hospital quality, or antitrust analysts, must turn to alternative tools for assessing quality.<sup>117</sup> The controversy over the use of Joint Com-

<sup>112</sup> See BARRY R. FURROW ET AL., HEALTH LAW § 1-4 (2d ed. 2000) (describing Joint Commission accreditation process).

<sup>113</sup> See The Joint Commission, Accreditation Process: Facts About the On-Site Survey Process, [http://www.jointcommission.org/AccreditationPrograms/Hospitals/AccreditationProcess/onsite\\_qa.htm](http://www.jointcommission.org/AccreditationPrograms/Hospitals/AccreditationProcess/onsite_qa.htm) (last visited Sept. 3, 2007).

<sup>114</sup> ENH Initial Decision, *supra* note 2, at Part III.C.2.b(2)(c).

<sup>115</sup> *Id.*

<sup>116</sup> *In re Evanston*, Brief of Amicus Curiae Joint Commission on Accreditation of Health Care Organizations in Support of Evanston Northwestern Hospital 7 (Dec. 16, 2005).

<sup>117</sup> The Joint Commission has been a leader in developing such tools. See The Joint Commission, Performance Measurement, <http://www.jointcommission.org/PerformanceMeasurement/> (describing Joint Commission's quality measurement-related activities) (last visited Sept. 3, 2007). It now incorporates these measures into the accreditation process.

mission scores, therefore, illustrates both the limitations of traditional quality assessment tools in modern efforts to improve quality, and the ways in which quantitative measures of quality can sometimes be misleading.

Newly-developed, detailed quantitative measures of quality can be much more helpful in assessing differences in quality, both over time and between hospitals. The outcomes, process, and patient satisfaction measures described in subpart B as demonstrating the promise of the quality movement have the potential to serve this purpose. Ultimately, however, these quality measures played quite a limited role in shaping the ALJ's antitrust analysis, in part because these quantitative measures also can be misleading.

For example, the ALJ noted that complaint counsel relied on Press Ganey patient satisfaction measures but then cited evidence suggesting that the underlying survey response rate was low, that "the experts were not aware of the survey methodology used, so that the survey's trustworthiness could not be determined," and that none of the other patient satisfaction data was "scientifically valid, comprehensive, and reliable."<sup>118</sup> The opinion also explained that complaint counsel used some health care quality measures developed by the Agency for Healthcare Research and Quality ("AHRQ") and other measures developed by the Joint Commission, but then observed that the findings were conflicting and/or not statistically significant.<sup>119</sup> The opinion then suggested that the differences in findings might have arisen as a result of different risk adjustment methodologies,<sup>120</sup> a problem particularly likely to arise when quality measures are based on health outcomes. The ALJ concluded that "[t]his quality of care evidence . . . is inconclusive in many instances."<sup>121</sup>

In an appeal brief, ENH challenged the evidence that complaint counsel had presented, including, presumably, some of the evidence that the ALJ had commented upon. It called the quantitative measures that complaint counsel's expert had used "narrow

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See The Joint Commission, Oryx, [http://www.jointcommission.org/AccreditationPrograms/Hospitals/ORYX/oryx\\_facts.htm](http://www.jointcommission.org/AccreditationPrograms/Hospitals/ORYX/oryx_facts.htm) ("Introduced in February 1997, The Joint Commission's ORYX initiative integrates outcomes and other performance measurement data into the accreditation process . . . . In 2002, accredited hospitals began collecting data on standardized—or 'core'—performance measures.") (last visited Sept. 3, 2007).

<sup>118</sup> ENH Initial Decision, *supra* note 2, at Part III.C.2.b(2)(c).

<sup>119</sup> *Id.*

<sup>120</sup> *Id.*

<sup>121</sup> *Id.*

outcome indicators utilizing unreliable administrative data that lacked clinical validity,” noting that the expert had “conceded that the administrative data he used suffered from numerous deficiencies that limited its utility in measuring quality.”<sup>122</sup> It added that “reliance on these administrative data was improper because they were designed as a first-round quality screen, not as definitive measures, a fact candidly recognized by AHRQ.”<sup>123</sup> It suggested that complaint counsel’s expert’s analysis was based on a measure “the results of which were contradicted by another, superior measure.”<sup>124</sup>

One natural response of a judge, provider, payer, or patient to these sorts of criticism is to conclude that the data are untrustworthy or inconclusive and should, therefore, be ignored or significantly discounted. Another potential response is to revert to evidence of quality based on the views expressed by physicians, friends, internet commentators, or others, in the case of medical treatment, or evidence of quality based on expert testimony, site visits, and interviews, in the case of legal proceedings. ENH, for example, contrasted complaint counsel’s “superficial analysis” with the work of its expert, who had “conducted two site visits and formally interviewed 34 key physicians, nurses and administrative leaders,”<sup>125</sup> an approach incorporating a quite different, less quantitative, and more traditional mechanism for assessing quality. These mechanisms have the advantage of providing more nuanced and fully-rounded qualitative assessments of quality, but have the disadvantage of being anecdotal rather than systematic and, therefore, potentially less likely to provide useful information about the level of quality a particular caregiver has been able to achieve.

The arguments in these documents highlight the challenge of developing the quantitative assessments of quality that provide the foundation for many quality improvement efforts. They reflect the difficulty of developing accurate and reliable measures of quality, or, alternatively, the difficulty in establishing conclusively that accurate and reliable measures are in fact accurate and reliable. Different methodologies for constructing quantitative measures can generate different results, fueling debates over providers’ quality. Measures using easily available, inexpensive data such as administrative data

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<sup>122</sup> *In re* Evanston, Respondent’s Brief, *supra* note 38, at Part III.B.2.b.

<sup>123</sup> *Id.*

<sup>124</sup> *Id.* at Part III.B.2.c.

<sup>125</sup> *Id.* at Part III.B.2.b.

are criticized as being subject to “deficiencies” or not “definitive.”<sup>126</sup> If such measures are not in fact deficient, then such criticism demonstrates the difficulty of convincing skeptical stakeholders to make use of the measures; if they are deficient, then such criticism implies that developing reliable quality measurements for use in quality improvement activities might be prohibitively expensive. In short, these documents point to both the pitfalls of current approaches to quality measurement and the challenges facing the quality improvement movement. Quality measurement advocates must develop reliable measures and then convince relevant decisionmakers of their reliability in order to shape future quality improvement efforts.

## 2. *The Lack of Incentives for Quality Improvement*

A second insight that the ENH opinion and subsequent briefs offer about the challenges facing quality improvement efforts concerns financial incentives. Hospitals might try to increase the attractiveness of their facilities to entice patients who might otherwise choose another facility. They might similarly increase the attractiveness of their facilities or the sophistication of their equipment to entice physicians, given physicians' considerable influence over patients' choices.<sup>127</sup> To the extent that providing patient services is profitable, the more patients hospitals serve, the more profit they will make. Providers are often rewarded for increasing the quantity of services they provide.

Rewards for increasing quality are much more limited. To the extent that physicians make hospital recommendations to patients based on the clinical quality of their facilities, hospitals may receive some financial benefit from improving clinical quality. But clinical quality can be difficult to judge, especially for patients. Patients may, therefore, choose hospitals based on other criteria. Even if hospitals did not receive more admissions as a result of their quality, they could be rewarded for higher quality through higher payments; historically, however, health care plans have not tied their payments to hospital performance.<sup>128</sup> The evidence offered in the

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<sup>126</sup> *Id.*

<sup>127</sup> See, e.g., Chad T. Wilson et al., *Choosing Where to Have Major Surgery: Who Makes the Decision?*, 142 ARCHIVES OF SURGERY 242, 242 (2007) (reporting that of surveyed Medicare patients, 31% said their physicians made decision about where to have surgery, 42% said they decided equally with their physician, and 22% said that they were main decisionmaker).

<sup>128</sup> See, e.g., INST. OF MED., PERFORMANCE MEASUREMENT: ACCELERATING IMPROVEMENT 28 (noting historical lack of reward for delivery of highest-quality care); Meredith B. Rosenthal et

ENH case illustrates payers' lack of attention to quality issues quite starkly: "Managed care representatives testified that during contract negotiations, the topic of quality improvements never came up. ENH's COO admitted that he did not tell managed care representatives that the higher prices were justified by quality changes to Highland Park."<sup>129</sup> Furthermore, "[e]ven after these changes, ENH never advertised them to managed care organizations."<sup>130</sup> In addition, "the managed care representatives testified that the value of ENH to their networks was principally due to the hospital's geography, not quality."<sup>131</sup>

The ENH experience provides just one example of negotiations between payers and providers, and the example is now quite dated. But it does point to a significant challenge facing the quality improvement movement: historical inattention to quality issues, especially among those purchasing care. In such an environment, refocusing providers', payers', and patients' attention on quality issues, particularly measures of relative quality, will be a difficult task. After all, such a focus makes sense only after one has accepted the possibility of significant variation in quality, over time or across providers.

It is a task, however, that some groups have begun to take on. Payers, including both health plans and employers, have been an important force behind health care quality reforms. Many have begun to implement pay-for-performance initiatives, rewarding prov-

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al., *Paying for Quality: Providers' Incentives for Quality Improvement*, HEALTH AFF., Mar.-Apr. 2004, at 127-28 (describing advent of pay-for-performance initiatives).

<sup>129</sup> ENH Initial Decision, *supra* note 2, at Part III.C.2.b(2)(b).

<sup>130</sup> *Id.*

<sup>131</sup> *Id.* In the ENH case, this evidence was important because it undermined arguments that higher quality would explain or justify the higher negotiated prices. But the evidence also raises bigger questions about the role of quality in merger analysis more generally: Are we too quick to assume that better quality would be a procompetitive benefit, or, for that matter, reflect an efficiency? A lack of discussion about quality during price negotiations could reflect a lack of any quality improvement, a lack of verifiable quality improvement, or a lack of payer interest in quality improvement. The first possibility implies that quality arguments should be ignored in the antitrust analysis, because there is no basis for them; the second, that quality arguments should have no impact on the antitrust analysis, because of a lack of evidence; the third, that quality arguments should be irrelevant to the antitrust analysis, because higher quality offers no benefit. The typical antitrust analysis, however, treats quality as beneficial. See, e.g., *Merger Guidelines*, *supra* note 40, § 4 (listing improved quality along with lower prices as potential consequence of efficiency-enhanced ability to compete). It is possible that while payers fail to contract over quality, patients prefer higher quality, consistent with the standard antitrust treatment. The disconnect could be due to information or agency failures that limit patients' pressure on payers to seek higher quality.

iders that deliver services the payer has defined as high quality.<sup>132</sup> Hospitals participating in a Medicare demonstration project, for example, receive a bonus if their performance measures place them in the top twenty percent of hospitals.<sup>133</sup> While limited financial rewards for higher quality have traditionally presented a challenge to efforts to improve quality, either by muting incentives or by depriving providers of the means to finance necessary investments, this challenge is one that the quality improvement movement has begun to address.

### 3. *The Difficulty of Achieving Quality Improvement*

A third type of quality-related challenge the ALJ's opinion illustrates is the sometimes weak connection between quality improvement efforts and quality improvement results. In some cases, quality improvement efforts fail because they are less than fully implemented. Managers may seek to encourage change but may ultimately fail. The ENH opinion illustrates this difficulty through its discussion of post-merger clinical protocols. While ENH presented evidence of the adoption of critical pathways to support its quality-related arguments, the ALJ noted that "the evidence does not clearly show whether the critical pathways are always being followed."<sup>134</sup> If the ALJ's conclusion is correct, it is possible that the evidence was simply lacking, but it is also possible that the creation of protocols failed to significantly change providers' behavior.

Even when quality improvement initiatives are properly implemented, they may not prove effective in increasing clinical quality of care, or, ultimately, improving patient outcomes. Consistent with the theory outlined in Part II, the ALJ acknowledged that ENH's post-merger affiliations with Northwestern University's medical school could generate merger-specific benefits.<sup>135</sup> He also found, however, that the "evidence does not establish . . . that the

<sup>132</sup> See *Examining Pay-for-Performance Measures and Other Trends in Employer-Sponsored Health Care: Hearing Before the H. Comm. on Education and the Workforce, Subcomm. on Employer-Employee Relations*, 109th Cong. 2 (2005) (statement of Meredith B. Rosenthal, Assistant Professor of Health Economics and Policy, Harvard School of Public Health), available at <http://edworkforce.house.gov/hearings/109th/ee/health051705/rosenthal.pdf> (discussing proliferation of pay-for-performance programs); Madison, *supra* note 35, at 1606–07 (describing pay-for-performance programs).

<sup>133</sup> See Premier Hospital Quality Incentive Demonstration, Fact Sheet, Jan. 2007, available at <http://www.cms.hhs.gov/HospitalQualityInits/downloads/HospitalPremierFS200602.pdf>.

<sup>134</sup> ENH Initial Decision, *supra* note 2, at Part III.C.2.b(2)(d)(iii).

<sup>135</sup> *Id.* at Part III.C.2.b(2)(e)(ii).

relationship with Northwestern Medical School had a noticeable impact on quality of care of patients, patient satisfaction, or improved structure, process, or outcomes.”<sup>136</sup> Again, it is possible that this conclusion simply reflects the difficulty of demonstrating increases in quality, or the difficulty of establishing the relationship between particular types of activities and their impacts. On the other hand, it could demonstrate that the organizational change thought to influence quality in theory does not necessarily influence quality in practice.

While the ALJ’s opinion did not express similar doubts with respect to the impact on quality of ENH’s adoption of CPOE and other electronic systems, researchers have raised such doubts. Many providers, researchers, and others tout the potential benefits of health information technologies, but studies showing that they have actually improved patient health outcomes are limited,<sup>137</sup> and some studies have found that they can introduce errors.<sup>138</sup> One of the biggest challenges facing efforts to improve quality today is to identify and fully implement steps that will ultimately prove successful in increasing quality, particularly quality as measured by health outcomes.

After examining the evidence of quality improvement occurring post-merger, the ALJ ultimately concluded that the impact of the medical records system (along with the impacts of clinical affiliations and integration) did not “sufficiently outweigh the merger’s harm to competition and ultimately to consumers.”<sup>139</sup> For antitrust analysis, as for quality improvement initiatives more generally, it is important to be able to establish that the actions taken in furtherance of quality actually improve it.

While it can be difficult to implement quality improvement programs, even more difficult to actually improve quality, and more

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<sup>136</sup> *Id.*

<sup>137</sup> See, e.g., Basit Chaudhry et al., *Systematic Review: Impact of Health Information Technology on Quality, Efficiency, and Costs of Medical Care*, 144 *ANNALS INTERNAL MED.* 742, 742 (“Four benchmark institutions have demonstrated the efficacy of health information technologies in improving quality and efficiency. Whether and how other institutions can achieve similar benefits, and at what costs, are unclear.”).

<sup>138</sup> See, e.g., Ross Koppel et al., *Role of Computerized Order Entry Systems in Facilitating Medication Errors*, 293 *JAMA* 1197, 1197 (2005) (concluding that “a leading CPOE system often facilitated medication error risks, with many reported to occur frequently”); see also Robert M. Wachter, *Expected and Unexpected Consequences of the Quality and Information Technology Revolutions*, 295 *JAMA* 2780, 2781–82 (2006) (commenting on problems and benefits of information technologies in medicine).

<sup>139</sup> ENH Initial Decision, *supra* note 2, at Part III.C.2.b(3).

difficult still to demonstrate that quality has improved, the most difficult challenge of all may be to demonstrate the link between mergers and quality improvements. As Part II explains, mergers could increase quality by facilitating changes in financing, management, culture, or the economics of the production process that lead to higher quality. However, the fact that mergers could do so does not mean that they actually will do so. Mergers may lower the transaction costs of coordination, thus facilitating higher quality care, but they may also fail to produce the integration that makes this chain of events possible.<sup>140</sup> Or, as previously explained, mergers may lead to changes, but the changes may not increase quality. Or mergers may precipitate changes that increase quality, but alternative approaches could have achieved similar results at similar cost, so that mergers offer no marginal benefits for quality while increasing the risk of anticompetitive behavior. A richer understanding of the role of mergers in accelerating quality improvements is important both to antitrust policy analysts, who try to understand the impact of mergers on competition, and to quality advocates who try to understand the mechanisms of quality improvement.

The ENH case illustrates how one merger may (or may not) have influenced quality. While the ALJ viewed many of ENH's structural improvements as enhancing quality, he refused to recognize them on the grounds that they were not merger-specific.<sup>141</sup> The Merger Guidelines define merger-specific efficiencies as "those efficiencies likely to be accomplished with the proposed merger and unlikely to be accomplished in the absence of either the proposed merger or another means having comparable anticompetitive effects."<sup>142</sup> While ENH emphasized the size of their post-merger financial investment in Highland Park, the ALJ found that Highland Park had budgeted for future improvements and that they had the economic ability to make them.<sup>143</sup> While ENH emphasized the post-merger addition of services, the ALJ suggested that Highland Park could have established such programs through collaborations with

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<sup>140</sup> Hospital mergers often fail to produce meaningful integration. *See, e.g.*, David Balto, *Feds Need to Get Back in the Game*, MODERN HEALTHCARE, Apr. 29, 2002, at 25 ("often the merged hospitals remain basically unintegrated and the merger exists mainly on paper"); Sabin Russell, *News Analysis: No Love Lost in Split of Health Care Giants: UCSF, Stanford Are Opposites That Didn't Attract*, S.F. CHRON. A1 (Oct. 30, 1999) (describing failure of UCSF and Stanford hospitals to integrate their programs).

<sup>141</sup> ENH Initial Decision, *supra* note 2, at Part III.C.2.b(2)(d).

<sup>142</sup> *See Merger Guidelines*, *supra* note 40, § 4.

<sup>143</sup> ENH Initial Decision, *supra* note 2, at Part III.C.2.b(2)(d).

other facilities.<sup>144</sup> Thus, while claims about equipment and facilities played a prominent role in the merger litigation, this evidence ultimately fell short because of the difficulty of establishing that the merger played a special role in creating the structural changes, a role that could not have been played by other actions.<sup>145</sup>

Merger specificity arguments also arose in connection with reforms associated with the modern quality movement. While the ALJ accepted the argument that the electronic medical records system was a merger-specific improvement,<sup>146</sup> he found that the new critical pathways and intensivist programs could have been created by Highland Park without the merger.<sup>147</sup> In an environment in which numerous hospitals are beginning to adopt various reforms intended to improve quality, it becomes especially difficult to prove that the merger generated or accelerated these reforms.<sup>148</sup>

The ALJ's opinion also discounted the claim that the merger had resulted in cultural changes within the hospital organization. The opinion noted that with respect to certain quality issues, the pre-merger "Highland Park was aware of and actively taking steps to change the culture, but that such changes take time."<sup>149</sup> It suggested that the cultural changes that ENH tried to link to the merger could have been achieved through the actions of newly-hired managers or the recommendations of outsiders.<sup>150</sup> It also said that ENH's changes to the quality assurance process may simply have reflected industry-wide changes, which again demonstrates the dif-

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<sup>144</sup> See, e.g., *id.* at Part III.C.2.b(2)(d)(xi).

<sup>145</sup> In its appeal brief, ENH claimed that it "improved care at all three ENH hospitals through the 'rationalization' of clinical services, i.e., enhancing quality and cost efficiency by determining at what location in a hospital system particular clinical services can best be rendered." *In re Evanston*, Respondent's Corrected Appeal Brief, *supra* note 5, at Part II.B.2. This sort of improvement could arguably be merger-specific, but it was not a point that the ALJ discussed when evaluating merger specificity in his opinion.

<sup>146</sup> ENH Initial Decision, *supra* note 2, at Part III.C.2.b(2)(e)(i). The Federal Trade Commission subsequently rejected this argument. It found that the installation of the system was not a merger-specific improvement, because if it had remained independent, Highland Park "likely would have continued to improve its operations by investing in current information technology." Commission's Opinion, *supra* note 6, at Part VI.B.1.

<sup>147</sup> ENH Initial Decision, *supra* note 2, at Part III.C.2.b(2)(d)(iii) (critical pathways); *id.* at Part III.C.2.b(2)(d)(xiv) (intensivist program).

<sup>148</sup> ENH confronted this problem by arguing that the post-merger Highland Park was an early adopter of both the intensivist program and the medical records system. See *In re Evanston*, Respondent's Brief, *supra* note 38, at Part III.B.3.c.

<sup>149</sup> ENH Initial Decision, *supra* note 2, at Part III.C.2.b(2)(d)(i).

<sup>150</sup> *Id.* at Part III.C.2.b(2)(d).

faculty of showing merger-specific quality improvement activities in an era of quality improvement.<sup>151</sup>

It is certainly possible to institute full-time department chairmen or upgrade quality assurance programs as an independent hospital. As the quality movement progresses, it is becoming increasingly clear that there are many steps that independent hospitals can take to improve quality. The real question in this case, as in the field of health care services generally, is how best to achieve implementation of reforms that we believe will improve quality. The ALJ was correct to observe that “changes take time,” but the longer changes take, the more potential for harm to patients.

Improving the quality of hospital care is not easy. If mechanisms for improving quality and patient safety were obvious, cheap, and easy for managers to implement, then it is unlikely that quality and safety deficiencies of the types identified in the Institute of Medicine reports<sup>152</sup> would persist for long. But hospitals are complex institutions in which hospital administrators and a medical staff traditionally comprised of independent physicians must work together to ensure the quality of services provided. Given this environment, improving quality is a difficult process, probably more difficult than it would be for other kinds of providers of goods or services. In addition, as ENH points out in its reply brief, high quality cannot be maintained by government agencies and third parties, which often focus only on minimum quality requirements in any event.<sup>153</sup> Outside bodies that are interested in quality improvement may be able to offer guidance about how to improve quality, but have “no direct authority to effectuate change.”<sup>154</sup> As discussed in Part III.C.2 above, quality has not yet fully been incorporated into hospitals’ competitive process either, so a significant amount of the pressure for quality improvement will continue to come internally, from providers themselves. For this reason, management and culture are especially important in a hospital setting, and we cannot assume that changes would inevitably occur on their own.

Mergers may accelerate the rate of change, both by allowing for the easier transfer of managerial knowledge and expertise and by promoting the kind of integration and information exchange that can lead to faster adoption of measures that will ultimately improve

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<sup>151</sup> *Id.*

<sup>152</sup> See *supra* notes 33 and 34.

<sup>153</sup> *In re* Evanston, Respondent’s Brief, *supra* note 38, at Part IV.C.

<sup>154</sup> *Id.*

patient care. The challenge, for both competition and health policy analysts, is to determine whether mergers really do have a special role to play in generating these changes in a hospital setting as opposed to other environments. More research on the effects of mergers on culture, on the relationship between mergers and quality improvement activities, and on the relationship between mergers and health care quality would facilitate the work of both types of analysts.

#### IV. MERGER ANALYSIS IN AN ERA OF QUALITY IMPROVEMENT

While Part III examined the insights the ENH case offered with respect to the quality improvement movement, this Part focuses on the implications of the quality improvement movement for merger analysis. It argues that as the quality movement begins to build on the achievements and address some of the challenges identified in Part III, the nature of hospital competition and merger analysis will change. Ultimately, the quality movement will improve the quality of both prospective and retrospective merger analysis, and help to shape future enforcement policy.

Part III.B explained that ENH illustrated two central achievements of the quality movement: the introduction of new approaches for improving quality, and the development of new methods for measuring quality. Both of these achievements could have far-reaching implications for merger analysis. The movement's introduction of new approaches to quality improvement, combined with its success in focusing attention on quality issues, increases the likelihood that hospitals will engage in quality-improving activities. At the same time, the movement's focus on measuring quality facilitates efforts to track success in improving quality. Organizations continue to work to overcome the obstacles to quality measurement identified in Part III. In a recent report, the Institute of Medicine advocated research to develop more accurate and meaningful risk-adjusted performance measures,<sup>155</sup> and a number of organizations have taken on this task.<sup>156</sup> In addition, the Institute of Medicine has

<sup>155</sup> See INST. OF MED., *supra* note 128, at 14 (describing research agenda for performance measurement and reporting).

<sup>156</sup> See *id.* at 134–43 (describing various organizations involved in performance measurement and their activities). For a discussion of health care quality measures and potential ways to improve them, see Madison, *supra* note 35, at 1603–13, 1646–51.

promoted efforts to standardize performance measures,<sup>157</sup> which might speed adoption of the measures and address at least some of the disputes over conflicting measures that arose in the ENH litigation.

Increased quality improvement efforts, particularly when combined with increased quality measurement capabilities, will likely increase the role of quality in future merger analyses. At the most basic level, the proliferation of quality improvement activities in hospital settings means that more merging hospitals are likely to engage in them, which means that quality arguments are more likely to appear in litigation, all else equal. But the nature of the change may be even more fundamental: these two trends may increase the role of quality in the competitive process itself. If quality is measurable, providers can more easily create and monitor internal quality improvement processes and then advertise their quality achievements in the hope of attracting more patients. If quality is measurable, payers can more easily make quality a criterion in developing provider networks or setting payment rates. If quality is measurable, patients can begin to select providers on the basis of quality or put pressure on payers to do so. In short, the development of quality measures can help to resolve information problems that impede competition in health care markets. The more closely that health care markets resemble conventional markets, the more straightforward antitrust analysis will become.

In addition, if quality is measurable, antitrust litigants can more easily use quality measures to support their arguments about the impact of mergers, particularly in cases involving retrospective analyses. Defendants in merger cases could more easily show that their efforts had improved quality. In criticizing ENH arguments, complaint counsel stated that ENH relied on intangibles such as governance, teamwork, staffing, and culture<sup>158</sup> rather than presenting “reasonably verifiable data showing how the alleged quality improvements improved patient outcomes or patient satisfaction.”<sup>159</sup> Better quality measures can help fulfill the need for such data. At the same time, those investigating or challenging mergers could more easily determine whether a particular merger was anticompe-

<sup>157</sup> See, e.g., INST. OF MED., *supra* note 128, at 12 (recommending endorsement of “national standards performance measures currently approved through ongoing consensus processes led by major stakeholder groups”).

<sup>158</sup> *In re* Evanston, Answering and Cross-Appeal Brief of Complaint Counsel, at IV.B.2, available at <http://www.ftc.gov/os/adjpro/d9315/060210ccattachmntpursuantrule.pdf>.

<sup>159</sup> *Id.*

titive. The link between a particular merger and quality improvement may still be harder to demonstrate than the mere existence of quality improvement, but the better the data available, the more we will understand about the nature of the link.

Better quality measures can also improve general research on the links between mergers, organizational changes, structural changes, health care processes, and health care outcomes, which could shape future enforcement policy, particularly in the context of prospective merger challenges. While improved quality measurement might not answer questions about how best to weigh or aggregate different types of quality evidence, it would facilitate assessment of the impact of hospital mergers.

## V. MERGER ANALYSIS AND THE FUTURE OF QUALITY IMPROVEMENT

This article has not provided a detailed legal analysis of the ENH case; indeed, such an analysis is beyond the article's scope.<sup>160</sup> The article would be incomplete, however, if it did not comment on the relationship between questions raised in the case about the proper way to incorporate quality-of-care claims in a Section 7 analysis and broader efforts to promote health care quality. Specifically, this Part argues that from a health care policy perspective, it may be beneficial to impose a high burden on merging parties seeking to defend mergers on the basis of quality improvement.

In the ENH initial decision, the ALJ raised the question of whether quality of care should be considered as part of the competitive effects analysis, as part of an efficiencies analysis, or as an affirmative defense, but ultimately accepted ENH's argument that quality should be treated as a "procompetitive justification under the competitive effects analysis" for the purposes of the initial decision.<sup>161</sup> After evaluating the evidence, the ALJ found that although ENH made quality improvements post-merger, most were not merger-specific, and those that were, did not "justify increased prices or outweigh the probable anticompetitive effects of the merger."<sup>162</sup>

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<sup>160</sup> For a discussion of Clayton Act Section 7 as applied to hospital mergers in general, see Thomas L. Greaney, *Night Landings on an Aircraft Carrier: Hospital Mergers and Antitrust Law*, 23 AM. J.L. & MED. 191 (1997).

<sup>161</sup> See ENH Initial Decision, *supra* note 2, at Part III.C.2.b(1).

<sup>162</sup> *Id.* at Part IV, Conclusion 20.

ENH argued that “enhanced quality, quite aside from its role as a potential efficiency defense, is a cognizable procompetitive effect that must be considered in a Clayton Act Section 7 merger analysis because quality improvements are a substantial benefit to consumers and, ultimately, reflect a form of improved competition,”<sup>163</sup> and that complaint counsel had the burden of proving that the net effect of the merger would be to harm competition.<sup>164</sup> ENH further argued that the ALJ erred by imposing “heightened merger-specificity requirements on Respondent,”<sup>165</sup> and that “[b]y requiring ENH to provide additional evidence that quality enhancements directly resulted from the merger, the ALJ erroneously shifted the burden of persuasion to ENH.”<sup>166</sup>

The antitrust inquiry under the language of Section 7 is whether the effect of the challenged acquisition “may be substantially to lessen competition,”<sup>167</sup> language that provides courts little guidance about the potential role of quality or efficiencies in a merger analysis. Taken together, the opinion and subsequent briefs demonstrate considerable confusion and disagreement about how quality and merger specificity should factor into merger analysis, including assignments of the burden of proof. Confusion and disagreement about such issues is by no means a new phenomenon. Many similar discussions preceded the 1997 creation<sup>168</sup> of the efficiencies portion of the Merger Guidelines.<sup>169</sup> For example, the FTC sponsored a series of hearings about the proper role of efficiencies in merger analysis.<sup>170</sup> FTC staff summarized the testimony at the hearings in part as follows:

A large portion of testimony supported the idea that efficiencies should be evaluated as part of the analysis of a merger’s likely competitive effects rather than as an absolute defense . . . . There was some disagreement about whether efficiencies should be

<sup>163</sup> *In re Evanston*, Respondent’s Brief, *supra* note 38, at Part III.B.1.

<sup>164</sup> *Id.*

<sup>165</sup> *In re Evanston*, Respondent’s Corrected Appeal Brief, *supra* note 5, at Part II.B. In an amicus brief, the American Hospital Association made the further assertion that “the analysis of competitive effects under Section 7 does not mandate that quality improvements be merger-specific.” Brief of American Hospital Association, *supra* note 38, at 21.

<sup>166</sup> *In re Evanston*, Respondent’s Corrected Appeal Brief, *supra* note 5, at Part II.B.3.

<sup>167</sup> 15 U.S.C. § 18 (2000).

<sup>168</sup> See *Merger Guidelines*, *supra* note 40 (describing history of revisions to guidelines).

<sup>169</sup> See also *FTC v. University Health, Inc.*, 938 F.2d 1206, 1222–24 (11th Cir. 1991) (describing debate over appropriate treatment of efficiencies in merger cases).

<sup>170</sup> See generally FTC STAFF, ANTICIPATING THE 21ST CENTURY: COMPETITION POLICY IN THE NEW HIGH-TECH, GLOBAL MARKETPLACE, Chapter 2 (May 1996), available at [http://www.ftc.gov/opp/global/report/gc\\_v1.pdf](http://www.ftc.gov/opp/global/report/gc_v1.pdf) (discussing efficiencies).

“merger-specific” when evaluated as part of a transaction’s overall competitive effects . . . . Others argued that efficiencies be placed in an affirmative defense framework in order to avoid in routine cases the evidentiary difficulties associated with evaluating efficiencies claims . . . . [V]irtually everyone believed that the burden of production regarding efficiencies should be on the merging parties. Regarding the burden of persuasion, some thought that the government should bear the ultimate burden of proof when efficiencies were considered as part of the competitive effects of a transaction. When efficiencies were asserted as an affirmative defense, some thought that the merging parties should bear the burden of persuasion . . . .<sup>171</sup>

The FTC staff responded to these hearings by recommending that efficiencies be considered as part of the competitive effects analysis and constitute a rebuttal, not a defense,<sup>172</sup> that the “agency need not consider procompetitive efficiencies that likely would occur absent the proposed merger,”<sup>173</sup> that “the parties bear the burden of producing evidence of competitively relevant efficiencies,”<sup>174</sup> but that there “is no question that the burden of persuasion as to whether a transaction is likely to lessen competition substantially remains with the government.”<sup>175</sup> Consistent with these recommendations, the 1997 Merger Guidelines treat quality as a potential competitive effect of merger-related efficiencies.<sup>176</sup> This approach reflects the kind of reasoning illustrated in Part II above. Mergers facilitate the production of quality, which increases the likelihood that the quality of hospital services improves and that hospitals compete on this basis. The Merger Guidelines explain that in analyzing mergers, antitrust agencies consider first whether a merger might have adverse competitive effects, and later whether there are “efficiency gains that reasonably cannot be achieved by the parties through other means.”<sup>177</sup> They state that “merging firms must substantiate efficiency claims so that the Agency can verify” the efficiency’s magnitude, effect on competition, merger specificity, and other characteristics.<sup>178</sup>

<sup>171</sup> See *id.* at 14–18.

<sup>172</sup> See *id.* at 25.

<sup>173</sup> See *id.* at 30.

<sup>174</sup> See *id.* at 37.

<sup>175</sup> See *id.* at 38.

<sup>176</sup> *Merger Guidelines*, *supra* note 40, § 4 (listing improved quality along with lower prices, enhanced service, and new products as potentially resulting from efficiencies).

<sup>177</sup> See *id.* § 0.2 (providing overview of merger analysis). In addition to being merger-specific, the efficiencies should be “verified” and “not arise from anticompetitive reductions in output or service.” See *id.*

<sup>178</sup> *Id.*

The issue of who must show what matters to litigants, of course, because it affects the likelihood that they will prevail. From a competition policy perspective, assignments of burdens of production and persuasion can affect the likelihood that the outcome of a case is “correct” in its ultimate assessment of a merger’s competitive effects, as well as affecting the relative magnitude of errors favoring merging parties versus errors favoring those challenging mergers. Placing higher burdens on parties that have better access to information will help to ensure that that information is revealed during litigation, but imposing burdens that are simply too difficult to meet will be outcome-determinative.<sup>179</sup>

From a health care quality perspective, who must show what in merger cases matters in two respects. First, to the extent that merging parties bear higher burdens, they will be less likely to merge. If mergers do improve quality, then approaches to antitrust analysis imposing high burdens on merging parties could worsen care for everyone. Second, an obligation to demonstrate quality improvement may affect the likelihood that evidence substantiating quality will be systematically gathered and analyzed by the parties. If the burden imposed on merging parties to establish quality is high, hospitals that anticipate future mergers will be more proactive in finding ways to assess quality and to establish the connections between mergers and quality. And, if they do merge, they will be more likely to create systems that document quality improvements that actually occur. Of course, hospitals may be concerned that increased documentation will reveal that mergers do not in fact improve quality, but if the litigation burdens they face are sufficiently high, such fears will not be enough to suppress measurement efforts.

As Part II showed, the limited evidence that does exist on the impact of mergers on quality suggests that the link is weak. The potential benefits of more systematic documentation of quality, however, are significant, particularly given the decreasing costs of data collection and analysis.<sup>180</sup> In addition to permitting more thorough evaluations of competitive effects of a particular merger or mergers in general, an increase in reliable, systematic, and meaningful measures of quality can promote quality improvement efforts

<sup>179</sup> See generally Dennis A. Yao & Thomas N. Dahdoub, *Information Problems in Merger Decisionmaking and Their Impact on Development of an Efficiencies Defense*, 62 ANTITRUST L.J. 23 (1993) (exploring how information deficiencies might affect merger analysis).

<sup>180</sup> See Madison, *supra* note 35, at 1595–97 (discussing decreasing costs of data collection and analysis).

throughout the hospital industry. As Parts III and IV suggested, increased attention to quality measurement can simultaneously advance internal quality improvement efforts and encourage hospital competition on the basis of quality. In other words, it is possible that merger analysis will affect competition and quality not just by influencing mergers, but also by spurring innovation in quality improvement and measurement techniques that may diffuse across the industry, altering the nature of competition in the long run.

Together, these arguments suggest that imposing relatively high burdens on parties seeking to defend mergers on the basis of potential or actual quality improvements could help reinforce the quality movement in the long run.<sup>181</sup> Professor Jonathan Baker has argued that in the context of prospective merger challenges, if “efficiencies were offered as evidence that would excuse higher prices . . . the defendants would have to satisfy both a burden of production and the burden of persuasion.”<sup>182</sup> This approach has considerable appeal in the context of both prospective and retrospective hospital merger challenges involving parties that point to quality-enhancing efficiencies as justifications for higher prices. Even if quality increases are analyzed solely as competitive effects for which the enforcement agency has the ultimate burden of persuasion, carefully scrutinizing defendants’ evidence of quality increases and requiring defendants to produce evidence tracing the connection between the merger and quality increases could advance current efforts to remedy deficiencies in the quality of medical care.<sup>183</sup>

<sup>181</sup> In their analysis of the impact of information deficiencies on merger analysis, Yao and Dahdouh conclude that evidentiary standards should be less daunting when there are uncertainties and gaps in information, as opposed to mere asymmetries in information (where parties hold information that enforcement authorities do not). See Yao & Dahdouh, *supra* note 179, at 44–45. By contrast, this article argues that if the goal is to improve quality, evidentiary standards should be more daunting because they will encourage providers to fill information gaps.

<sup>182</sup> See *Hearing Before the Antitrust Modernization Commission on Efficiencies in Merger Enforcement* 22 (2005) (testimony of Jonathan B. Baker), available at [http://www.amc.gov/commission\\_hearings/pdf/Baker\\_Statement.pdf](http://www.amc.gov/commission_hearings/pdf/Baker_Statement.pdf); *id.* at 1 n.2 (limiting testimony to prospective mergers). This testimony contains an excellent discussion of allocations of burdens of production and persuasion in merger cases involving efficiencies.

<sup>183</sup> In the decision issued just before this article went to press, the FTC considered ENH’s quality of care arguments both in the context of competitive effects and as a “justification.” See Commission’s Opinion, *supra* note 6, at 3. The Commission noted that because complaint counsel attempted to show market power by demonstrating price increases not attributable to benign factors, ENH’s quality evidence was relevant to showing that the price increased as a result of higher demand tied to improved quality rather than other factors. *Id.* at 71. The Commission found that the record did not support the argument that

## VI. CONCLUSION

This article has not attempted to analyze all of the quality-related evidence and arguments presented in the ENH case, much less other legal arguments that may play a central role when the full FTC considers the case. Instead, it has used some of the evidence and arguments presented in the case to analyze the relationship between mergers and quality against the backdrop of the quality improvement movement. The ALJ's opinion and the subsequent briefs illustrate both recent advances in the quality movement and impediments to further advancement. They also reveal how two aspects of the quality improvement movement, the introduction of new quality improvement approaches and the development of quality measures, could influence merger litigation.

While some scholars have discussed the possibility of abandoning quality-of-care defenses because they are too difficult or complex to prove,<sup>184</sup> advances in quality measurement make such defenses potentially viable. At the same time, imposing burdens on parties seeking to defend mergers on the basis of quality improvement may promote further advances in quality measurement and, ultimately, in the quality of care.

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higher quality led to higher prices, however. *Id.* With respect to the quality justification, the Commission noted that ENH did not argue that quality improvements resulted from efficiencies, but instead that the quality improvements were "benefits . . . that offset any adverse competitive effects produced by the merger." *Id.* at 82. The Commission then acknowledged that case law was unclear about the role of qualitative benefits in a competitive effects analysis, but concluded that "it is clear that quality improvements must be subject to the same 'rigorous analysis' that applies to all claims of procompetitive efficiencies," including that they be "verifiable," "merger-specific," and "greater than the transaction's substantial anticompetitive effects." *Id.* The Commission then found that the "evidence presented by ENH fails to rebut complaint counsel's showing of anticompetitive effects" because evidence of merger-specificity and verifiable evidence of quality improvements were both lacking. *Id.* at 83. While the Commission refers multiple times to the fact that ENH tracked quality indicators but did not use them to support its case, *id.* at 84, 85, an observation that could dampen merging parties' incentives to collect indicators that they fear may not show improvement, the Commission's overall analysis puts considerable pressure on merging hospitals to use quantitative evidence to demonstrate quality improvement, an approach that reinforces the efforts of the quality movement.

<sup>184</sup> See, e.g., Thomas E. Kauper, *The Role of Quality of Health Care Considerations in Antitrust Analysis*, 51 LAW & CONTEMP. PROBS. 273, 278-79 (Spring 1988); cf. Yao & Dahdouh, *supra* note 179, at 28 & n.14 (noting some commentators' opposition to efficiency defenses).