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Resident Physicians’ Perspectives on Health Care Reform

Paul C. Frake, MD1, Alex Y. Cheng, MD1, Rebecca J. Howell, MD1, and Nitin J. Patel, MD1

Abstract

Objective. To investigate the perspectives of resident physicians, in otolaryngology and other specialties, with respect to various health care reform proposals. Also, to determine if these opinions vary between residents training to become general medical doctors versus surgeons and specialists and between those with various levels of educational debt.

Study Design and Participants. Survey of resident physicians across the United States.

Methods. Opinions of participants were measured on a 5-point Likert scale.

Results. Of the 1576 respondents, the majority agreed that tort reform and electronic medical records would improve quality of care and help contain health care costs. However, few residents agreed that bundling of services (BOS), hospital-acquired conditions penalties (HACP), and quality-based reimbursement (QBR) would improve the quality of care. Specialists and surgeons, in comparison to generalists, were (1) less likely to agree that BOS, HACP, or QBR would improve the quality of care; (2) more likely to agree that tort reform would help contain health care costs; and (3) more likely to believe that BOS, HACP, or QBR would decrease physician compensation. Higher educational debt burden was also an independent predictor of increased skepticism about health care reforms effects on physician compensation.

Conclusions. Residents in general medicine and surgery/specialty training programs agreed that tort reform and electronic medical records would help improve the quality of health care and help contain costs. However, both groups expressed strong concern that certain elements of the Patient Protection and Affordable Care Act (PPACA) would not achieve these goals.

Keywords
health care, health care reform, resident physicians, perspectives, quality of care, health care cost, Patient Protection and Affordable Care Act (PPACA), quality-based reimbursement, electronic medical records, quality-based reimbursement, bundling of services

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On March 21, 2010, the United States House of Representatives passed the Patient Protection and Affordable Care Act (PPACA, previously bill H.R. 3590).1 This legislation contains many elements aimed at modernizing the American health care system. The overall objectives are to increase the number of Americans covered by health insurance, improve the quality and safety of health care, and help control the escalating cost of these vital services.

Many individual physicians have presented editorial commentary and opinions about various elements of health care reform, and a few survey studies have begun to explore some of the salient issues.2-4 Unfortunately, there are few objective data about the opinions of physicians with respect to specific elements of current health care legislation. The opinions of various medical societies have received mixed responses from lawmakers in Washington, DC. Although the American Medical Association and other groups support the legislation, a significant number of medical societies oppose it. Most notably, the American College of Surgeons and a coalition of surgical specialty societies (including the American Academy of Otolaryngology–Head and Neck Surgery AAO-HNS) expressed concerns about specific elements of PPACA, which they believed would “undermine quality and threaten patient access to surgical care.”5,6,8

Resident physicians are America’s next generation of doctors. In addition to developing clinical skills, residents are learning about the delivery of health care, and they stand to...
inherit the changes being laid down today. Facing large amounts of educational debt, young physicians are becoming increasingly aware of the economics of their future practices and its implications on their ability to provide medical care for the next several decades. The purpose of this study was to examine resident physicians’ views on the impending changes in our health care system. We hypothesized that residents would express concern about the ability of elements of the health care reform legislation to control cost and improve quality of care. We also hypothesized that residents training to become specialists and surgeons would be more critical of these proposals than generalists and primary care residents and that increasing educational debt may predispose individuals to be more critical of health care reform.

Methods

Health Care Reform Proposals

We selected 5 elements of PPACA (H.R. 3590) for this study. Section 3023 is titled “National Pilot Program on Payment Bundling.” This section describes combining payments for services into one lump sum, which will be divided among the involved parties as a cost-saving measure. In this survey, this is called bundling of services.

Section 3008 is titled “Payment Adjustment for Conditions Acquired in Hospitals.” This section imposes hospital-acquired conditions penalties by reducing (or eliminating) reimbursement if a patient develops any number of conditions in the inpatient setting. In this survey, this proposal is called the hospital-acquired conditions penalty.

Section 3007 is titled “Value-Based Payment Modifier under the Physician Fee Schedule.” This proposal imposes quality-of-care-based reimbursement, which is calculated using “quality” measures defined by lawmakers that physicians will be required to report. It remains to be determined what these specific quality indicators will be. In this survey, this proposal is called quality-based reimbursement.

In Section 10607, malpractice litigation reform (“tort reform”) is addressed in the form of state grants to explore alternatives to the current litigation system. Although this may be a step toward change, this section contains an “opt-out” clause that allows any plaintiff in a malpractice case to “opt out” of the proposed pilot program if he or she desires and have the case tried under the current tort system.

The final element studied was the utilization of the electronic medical record. Supporters of this technology believe electronic records prevent medical errors and provide greater access to patient information. Most resident physicians are familiar with these systems, as they are used at many academic medical centers throughout the country.

Survey Structure

A 5-point Likert scale was used to measure the responses to the survey. For example, respondents were asked “Tort Reform: This proposal will help contain healthcare costs. (a) Strongly agree, (b) Somewhat agree, (c) Uncertain, (d) Somewhat disagree, (e) Strongly disagree.” The responses for strongly agree and agree were condensed into a single category of “agree” for the purposes of data analysis. Similar grouping was done for the disagree and strongly disagree responses. This resulted in the final categories of agree, uncertain, and disagree. The entire survey is presented in the online Appendix.

Ethical Approval

This survey was reviewed by the institutional review board (IRB) of The George Washington University Medical Center and granted “IRB exempt” status because of its anonymity and minimal risk to participants.

Recruitment

Recruitment of participants was accomplished through e-mails sent to residency program directors in internal medicine, family medicine, general surgery, obstetrics and gynecology, otolaryngology, urology, anesthesiology, pediatrics, neurosurgery, and emergency medicine. The recruitment e-mail asked for the program director to distribute the link to the Web-based survey to their residents so they could participate.

Statistical Analysis

Chi-square 2-way contingency table analysis was used to evaluate the distribution of responses. P values of <.05 were considered statistically significant and indicate a contingency between the distribution of responses and the grouping variable—in the case of our study, generalist versus specialist training or educational debt burden.

Results

A total of 2350 e-mails were sent to program directors. The number of residents who received the survey is unknown; therefore, the true response rate to the survey cannot be determined. There were a total of 1677 respondents to the survey, of which 1576 were complete surveys (completion rate of 94%).

The 1576 respondents represent a sampling of residents from multiple specialties, including 520 (33.0%) from general medicine and primary care, 63 (4.0%) from medical specialties, 149 (9.5%) from emergency medicine, 173 (11.0%) from general surgery, 253 (16.1%) from surgical specialties (otolaryngology, urology, and neurosurgery), 166 (10.5%) from obstetrics and gynecology, and 252 (16.0%) who self-identified as “other.” Geographic distribution of respondents included 141 (8.9%) from New England, 279 (17.7%) from the Middle Atlantic, 361 (22.9%) from the South, 395 (25.1%) from the Midwest, 133 (8.4%) from the Southwest, and 267 (16.9%) from the Western states.

When asked to estimate the total amount of educational debt upon graduation from training, 21.8% of respondents said they would have less than $50,000; 23.7%, $50,000 to $150,000; 38.6%, $150,000 to $250,000; and 15.9%, more than $250,000.

Summary data for all respondents are shown in Figure 1. Figure 1A represents the opinions of respondents as to whether or not the health care proposal elements will help improve the quality of care. The majority of respondents agreed that tort
reform and electronic medical records would improve the quality of care. However, the majority disagreed that bundling of services, hospital-acquired conditions penalties, and quality-based reimbursement would improve quality.

Figure 1B represents the opinions with respect to the proposal elements’ ability to help contain health care costs. The majority agreed that tort reform and electronic medical records would help contain health care costs. Opinions regarding the ability of bundling of services, hospital-acquired conditions penalties, and quality-based reimbursement to help contain costs were not as clear. Of the residents, 33.2%, 47.0%, and 48.2% respectively disagreed that these proposals would help contain health care costs.

With respect to the effects of bundling of services, the hospital-acquired condition penalty, and quality-based reimbursement on physician compensation, 88.7%, 81.2%, and 71.6% respectively believed that these proposals would decrease physician compensation. The proportion of responses regarding physician compensation is shown in Figure 2.

Responses for each question were then reanalyzed and subdivided into groups based on the 4 categories of educational debt outlined in the demographic section (<$50,000 of debt, n = 343; $50,000-$150,000 of debt, n = 373; $150,000-$250,000 of debt, n = 609; and >$250,000 of debt, n = 251). Chi-square statistical analysis was performed to test whether responses varied based on the educational debt burden of respondents. These data are summarized in Table 2.

These data indicate that as educational debt load increases, a higher proportion of respondents expressed concern that bundling of services, hospital-acquired conditions penalties, and quality-based reimbursement would decrease physician compensation. These increases correspond with the statistically significant contingency based on the respondents’ debt burden.

Chi-square analysis also confirms, in the respondents to this survey, that specialist versus generalist training and the
The results of this study show that resident physicians tend to believe that tort reform and increased utilization of electronic medical records will help decrease the cost of health care and improve its quality. However, meaningful medical malpractice reform was omitted from the Patient Protection and Affordable Care Act of 2010. Residents expressed concern that the legislative proposals of bundling of services, hospital-acquired condition penalties, and quality-based reimbursement would not benefit the health care system and were concerned that these proposals would decrease physician compensation.

Table 1. Proportion of Generalists and Specialists Agreeing with Statements about Health Care Reform Proposals

<table>
<thead>
<tr>
<th>Proposal</th>
<th>Effect</th>
<th>Generalists % Agree (± 95% CI)</th>
<th>Specialists % Agree (± 95% CI)</th>
<th>PValue</th>
<th>Contingency</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOS</td>
<td>Will improve the quality of care</td>
<td>12.5 (2.8)</td>
<td>9.3 (2.0)</td>
<td>&lt;.001</td>
<td>a</td>
</tr>
<tr>
<td>HACP</td>
<td>Will improve the quality of care</td>
<td>41.9 (4.2)</td>
<td>32.3 (3.2)</td>
<td>&lt;.001</td>
<td>a</td>
</tr>
<tr>
<td>QBR</td>
<td>Will improve the quality of care</td>
<td>36.0 (4.1)</td>
<td>27.9 (3.1)</td>
<td>&lt;.001</td>
<td>a</td>
</tr>
<tr>
<td>Tort reform</td>
<td>Will improve the quality of care</td>
<td>57.1 (4.3)</td>
<td>62.2 (3.4)</td>
<td>.16</td>
<td></td>
</tr>
<tr>
<td>EMR</td>
<td>Will improve the quality of care</td>
<td>79.0 (3.5)</td>
<td>78.9 (2.8)</td>
<td>.99</td>
<td></td>
</tr>
<tr>
<td>BOS</td>
<td>Will help contain health care costs</td>
<td>40.4 (4.2)</td>
<td>38.2 (3.4)</td>
<td>.45</td>
<td></td>
</tr>
<tr>
<td>HACP</td>
<td>Will help contain health care costs</td>
<td>42.7 (4.3)</td>
<td>37.7 (3.3)</td>
<td>.08</td>
<td></td>
</tr>
<tr>
<td>QBR</td>
<td>Will help contain health care costs</td>
<td>28.3 (3.9)</td>
<td>24.8 (3.0)</td>
<td>.36</td>
<td></td>
</tr>
<tr>
<td>Tort reform</td>
<td>Will help contain health care costs</td>
<td>85.0 (3.1)</td>
<td>90.5 (2.0)</td>
<td>.006</td>
<td>a</td>
</tr>
<tr>
<td>EMR</td>
<td>Will help contain health care costs</td>
<td>65.2 (4.1)</td>
<td>56.3 (3.4)</td>
<td>.40</td>
<td></td>
</tr>
<tr>
<td>BOS</td>
<td>Will decrease physician compensation</td>
<td>85.2 (3.1)</td>
<td>90.2 (2.1)</td>
<td>.02</td>
<td>a</td>
</tr>
<tr>
<td>HACP</td>
<td>Will decrease physician compensation</td>
<td>77.7 (3.6)</td>
<td>81.5 (2.7)</td>
<td>.04</td>
<td>a</td>
</tr>
<tr>
<td>QBR</td>
<td>Will decrease physician compensation</td>
<td>65.6 (4.1)</td>
<td>74.0 (3.0)</td>
<td>&lt;.001</td>
<td>a</td>
</tr>
</tbody>
</table>

Percentages of respondents agreeing with the listed statements are presented along with their corresponding 95% confidence intervals (CIs). Generalists, n = 520; specialists, n = 804. BOS, bundling of services; EMR, electronic medical record; HACP, hospital-acquired conditions penalty; QBR, quality-based reimbursement.

Table 2. Stratification of Responses Based on Educational Debt Burden of the Participants

<table>
<thead>
<tr>
<th>Proposal</th>
<th>Effect</th>
<th>Debt &lt;$50,000, % Agree (± 95% CI)</th>
<th>Debt $50,000-$150,000, % Agree (± 95% CI)</th>
<th>Debt $150,000-$250,000, % Agree (± 95% CI)</th>
<th>Debt &gt;$250,000, % Agree (± 95% CI)</th>
<th>PValue</th>
<th>Contingency</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOS</td>
<td>Will improve the quality of care</td>
<td>13.7 (3.7)</td>
<td>9.4 (3.0)</td>
<td>9.2 (2.3)</td>
<td>7.2 (3.3)</td>
<td>.007</td>
<td>a</td>
</tr>
<tr>
<td>HACP</td>
<td>Will improve the quality of care</td>
<td>36.2 (5.2)</td>
<td>39.7 (5.1)</td>
<td>35.6 (3.9)</td>
<td>29.1 (5.7)</td>
<td>.204</td>
<td></td>
</tr>
<tr>
<td>QBR</td>
<td>Will improve the quality of care</td>
<td>30.0 (5.0)</td>
<td>34.6 (4.9)</td>
<td>28.4 (3.7)</td>
<td>27.9 (5.7)</td>
<td>.090</td>
<td></td>
</tr>
<tr>
<td>Tort reform</td>
<td>Will improve the quality of care</td>
<td>58.9 (5.3)</td>
<td>61.9 (5.0)</td>
<td>60.4 (4.0)</td>
<td>61.4 (6.1)</td>
<td>.632</td>
<td></td>
</tr>
<tr>
<td>EMR</td>
<td>Will improve the quality of care</td>
<td>77.3 (4.5)</td>
<td>79.4 (4.2)</td>
<td>81.0 (3.2)</td>
<td>75.7 (5.4)</td>
<td>.279</td>
<td></td>
</tr>
<tr>
<td>BOS</td>
<td>Will help contain health care costs</td>
<td>37.6 (5.2)</td>
<td>40.5 (5.1)</td>
<td>36.3 (3.9)</td>
<td>33.9 (6.0)</td>
<td>.233</td>
<td></td>
</tr>
<tr>
<td>HACP</td>
<td>Will help contain health care costs</td>
<td>35.3 (5.2)</td>
<td>45.0 (5.2)</td>
<td>37.1 (3.9)</td>
<td>32.7 (5.9)</td>
<td>.016</td>
<td>a</td>
</tr>
<tr>
<td>QBR</td>
<td>Will help contain health care costs</td>
<td>28.3 (4.9)</td>
<td>26.5 (4.6)</td>
<td>24.3 (3.5)</td>
<td>19.9 (5.0)</td>
<td>.182</td>
<td></td>
</tr>
<tr>
<td>Tort reform</td>
<td>Will help contain health care costs</td>
<td>85.1 (3.8)</td>
<td>89.8 (3.1)</td>
<td>90.6 (2.4)</td>
<td>86.9 (4.3)</td>
<td>.048</td>
<td>a</td>
</tr>
<tr>
<td>EMR</td>
<td>Will help contain health care costs</td>
<td>69.4 (5.0)</td>
<td>68.1 (4.8)</td>
<td>64.7 (3.9)</td>
<td>68.9 (5.8)</td>
<td>.506</td>
<td></td>
</tr>
<tr>
<td>BOS</td>
<td>Will decrease physician compensation</td>
<td>84.3 (3.9)</td>
<td>87.6 (3.4)</td>
<td>90.8 (3.3)</td>
<td>95.2 (2.7)</td>
<td>.039</td>
<td>a</td>
</tr>
<tr>
<td>HACP</td>
<td>Will decrease physician compensation</td>
<td>76.4 (4.6)</td>
<td>80.2 (4.1)</td>
<td>82.8 (3.1)</td>
<td>85.7 (4.4)</td>
<td>.003</td>
<td>a</td>
</tr>
<tr>
<td>QBR</td>
<td>Will decrease physician compensation</td>
<td>65.6 (5.1)</td>
<td>70.0 (4.7)</td>
<td>73.4 (3.6)</td>
<td>77.7 (5.3)</td>
<td>.035</td>
<td>a</td>
</tr>
</tbody>
</table>

Percentages of respondents agreeing with the listed statements are presented along with their corresponding 95% confidence intervals (CIs). Debt load of <$50,000, n = 343; $50,000 to $150,000, n = 373; $150,000 to $250,000, n = 609; >$250,000, n = 251. BOS, bundling of services; EMR, electronic medical record; HACP, hospital-acquired conditions penalty; QBR, quality-based reimbursement.

a P < .05 from chi-square contingency table indicating the distribution of responses is contingent on whether respondents were generalists or specialists.

b Original question format: “What effect will (proposal) have on physician compensation?” (increase, uncertain, or decrease).

amount of educational debt load are independent ($\chi^2 = 5.73$, df = 3, P = .125).

Discussion
The results of this study show that resident physicians tend to believe that tort reform and increased utilization of electronic medical records will help decrease the cost of health care and improve its quality. However, meaningful medical malpractice reform was omitted from the Patient Protection and Affordable Care Act of 2010. Residents expressed concern that the legislative proposals of bundling of services, hospital-acquired condition penalties, and quality-based reimbursement will not improve the quality of health care, will decrease physician compensation, and may or may not help contain overall health care costs. Significantly more specialists agreed that bundling of services, the hospital-acquired condition penalty, and quality-based reimbursement would not benefit the health care system and were concerned that these proposals would decrease physician compensation. The vast majority of generalists and specialists agreed that...
tort reform and electronic medical records would improve quality and help contain costs, with a greater proportion of specialists agreeing than generalists.

Furthermore, those residents with higher educational debt, independent of specialist versus generalist training, were more likely to be concerned that health care reform proposals would decrease physician compensation.

A potential limitation to this study is the inability to assess a survey response rate secondary to the method of recruitment. According to the Association of American Medical Colleges 2008 Physician Specialty Data, there are approximately 75,702 residents training in the specialties included in this survey. If we assume that all of these residents had access to the survey, the minimum response rate would be approximately 2.1%. This is likely a very low estimate of the actual response rate because some e-mails were returned, and many program directors may have simply deleted the original recruitment e-mail without forwarding it to any residents. Irrespective of this rate, respondents were from a broad range of geographic locations, specialties, and educational debt categories. The purpose of this study is not to establish the definitive numerical percentages of certain viewpoints but rather to demonstrate the trends in opinion based on relevant variables. Direct comparison of specialty to educational debt burden failed to show a statistical contingency, indicating that we are not observing a sampling error as the result of both demographics indicating the same differences in opinion on the issues.

This study provides objective evidence that resident physicians are skeptical of the ability of current health care reform legislation to control escalating costs and improve the quality of care. Financial concerns are even stronger among residents who are training to become specialists and those with higher educational debt burden independently. These sentiments echo the positions of specialty and surgical societies, including the AAO-HNS, that were largely ignored during the debate of health care reform, including the failure of PPACA to initiate “well-designed and tested” quality improvement measures and instead making changes that make the Physician Quality Reporting Initiative mandatory, punitive, transparent, and without a reasonable appeals process. In addition, the AAO-HNS expressed concern over PPACA’s failure to address the sustainable growth rate formula, meaningful malpractice liability reform, and “fair and appropriate” Medicaid reimbursement rates. It is clear that current resident physicians (including surgical specialty residents in otolaryngology, urology, and neurosurgery), in addition to many physician organizations, are concerned about the implications of legislation on the quality and finances of medicine.

Otolaryngologists should set the example for future changes in health care policy by studying the effects of PPACA once it is implemented and educating their patients, the public, and lawmakers about the potential implications of current and future reforms. Furthermore, all Americans should be concerned about the minimal input medical providers were permitted to have during this reform process. If negative quality and financial impacts are realized, it may deter the “best and the brightest” of the next generation of Americans from pursuing careers in medicine. Clearly, the newest generation of physicians has expressed significant concern through the results of this survey.

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Author Contributions

Paul C. Frake, concept and design, acquisition of data, analysis and interpretation, drafting and critical revision, final approval; Alex Y. Cheng, concept and design, acquisition of data, analysis and interpretation, drafting and critical revision, final approval; Rebecca J. Howell, concept and design, acquisition of data, analysis and interpretation, drafting and critical revision, final approval; Nitin J. Patel, concept and design, acquisition of data, analysis and interpretation, drafting and critical revision, final approval.

Disclosures

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Supplemental Material

Additional supporting information may be found at http://oto.sagepub.com/content/by/supplemental-data.

References