

# **An Overview of U.S. Healthcare Financial Models in the Context of Recent and Projected Economic Trends**

---

**Matthew Chase Lustig, MBA**

**Medical College of Georgia at the Augusta University  
University of Georgia Medical Partnership**

## Table of Contents

<b>Abstract</b> .....	<b>2</b>
<b>Introduction</b> .....	<b>3</b>
<b>Fee-For-Service (FFS) Payment Model</b> .....	<b>4</b>
<b>Capitation Payment Model</b> .....	<b>7</b>
<b>Salary Payment Model</b> .....	<b>9</b>
<b>Recent Trend: Value Based Systems</b> .....	<b>10</b>
<b>Problems with Recent Trend</b> .....	<b>10</b>
<b>Future Trend: Restructuring FFS</b> .....	<b>13</b>
<b>Conclusion</b> .....	<b>14</b>
<b>Works Cited</b> .....	<b>15</b>

## Abstract

Many different U.S. healthcare financial models have been implemented in search of a model that best serves U.S. patients and physicians. Amongst these, three models currently dominate within the United States: FFS (Fee-For-Service), Capitation, and Salary. Although no particular model has proven to be substantially better than the others, there are two major themes. The first theme is a recent trend away from the FFS model towards a model based on value. The second theme is a projected trend towards a restructured FFS model. Trial models fail to definitively predict one trend's success over the other; however, the large number of trials implies that change is, indeed, the overall trend. Consequently, there is a need for policy makers to better understand these models as well as to analyze these trends on a microeconomic and macroeconomic level.

## Introduction

Physician practices desire the financial model that will best maximize benefits for the physician and the patient. For the physician, the financial model would increase physician income, as well as afford the competence to the physician to practice medicine without financial burden. For the patient, the financial model would decrease out-of-pocket expenses as well as increase the quality of care the patient receives. As a result, many different healthcare financial models have emerged. Among these, three models currently dominate within the United States: FFS (Fee-For-Service), Capitation, and Salary. FFS encompasses 90% of primary care practice revenue within the United States<sup>1</sup>, and is the primary financial model for Medicare and Medicaid (which, combined, cover approximately 100 million Americans).

In FFS models, a physician performs a task and gets reimbursed for that task. In Capitation models, a practice receives a certain amount of money per patient, and the net income becomes the sum of money that remains after all healthcare expenditures are provided for that patient. In Salary models, a physician gets paid a pre-determined amount, usually annually. Certain relationships have developed among these three models to determine the physician's income. In a FFS model, income is directly related to the amount of patients seen and/or procedures performed. In a Capitation model, income is inversely related to the amount of procedures performed. In a Salary model, income is directly related to the number of hours worked. These relationships are not finite; however, their potentials for influencing the practice of healthcare within the United States are largely controversial, and thus, heavily studied.

Along the process, many trends have developed for structuring and/or restructuring U.S. healthcare financial models. These trends project in many different directions, but there are two major themes. The first theme is a trend away from the FFS model, towards models based on value. The second theme is a trend towards the FFS model, but a FFS model restructured in a way that it becomes less easily manipulated<sup>2</sup>. Trial models fail to clearly support one trend's success over the many others; however, the large number of trials implies that change is, indeed, the overall trend.

These changes are also necessary because many critics consider FFS to be the single largest contributor to NHE (National Health Expenditures)<sup>3</sup>. Additionally, while physicians' salaries and related expenses encompass 20% of NHE, many believe that physicians' decisions influence an additional 60% of NHE<sup>4</sup>. Consequently, there exists a great need to better understand these trends towards and away from FFS on a microeconomic and macroeconomic level.

## Fee-For-Service (FFS) Payment Model

### Advantages to Patient Health

FFS has remained the dominant financial healthcare model, both generally and within Medicare, because of the relatively clear dynamics of the system<sup>5</sup> as well as the many potential (and more easily manipulated) benefits. FFS benefits a patient's health in many ways. For one, it allows a patient to go to the physician of his/her choice as often as the patient wants or needs to attend an appointment. Because the physician's income is directly related to how many patients the physician sees, FFS creates an incentive for the patient's physician to remain accessible. This also encourages the doctor to work longer hours<sup>6</sup>. Consequently, FFS incentivizes accepting patients with higher risk (sicker patients) because the physician will potentially perform more tasks for that patient and see that patient more frequently<sup>7</sup>. As a result, FFS results in more primary care visits/contacts than Capitation as well as fewer hospital referrals<sup>8</sup>. FFS thus allows physicians the competence to follow-up with their patients.

Within a patient encounter, FFS models neither restrict physicians from performing tests nor from referring patients to specialists. As a result, patients often believe their physicians are acting in their best interests<sup>9</sup>. The FFS model also allows a patient to know precisely what he/she is buying, as a specific CPT (Current Procedural Terminology) code identifies each service. The coding system also has the benefit of persuading the physician from fraudulently misreporting CPT codes, since coded services are more easily audited. Because CPT codes may also identify preventative services (or other specific, aimed services), CPT codes further financially incentivize the doctor to provide these services, which many experts believe will prophylactically decrease future healthcare expenditures for both the physician and the patient.

### Disadvantages to Patient Finances

The FFS model also has many weaknesses. Critics argue that, because the physician's income is directly related to the number of patients seen and procedures performed, FFS incentivizes "over-providing" care to patients as well as providing inappropriate services. FFS thus encourages poor clinical behavior on the part of the physician at the expense of the patient. As evidence, physicians under FFS tend to order more consultations<sup>10</sup>, elective procedures<sup>11,12</sup>, hospitalizations<sup>13,14</sup>, and tests<sup>15,16</sup> than physicians in capitated or other environments. Additional studies show that when physicians have ownership of ancillary services, such as equipment used by the practice or ownership in labs utilized by the practice, their rates of utilization of those ancillary services are higher<sup>17,18</sup>. Not only may patient finances be in jeopardy, but patient health as well.

## Disadvantages to Patient Health

Per the increased patient load, the physician often has less time to care for each patient<sup>19</sup>. Moreover, the doctor has fewer incentives to provide well-coordinated care for those patients<sup>6</sup>. Well-coordinated care could include cooperation with other types of physicians involved in the care of the patient, which is not currently coded, and thus not a financially incentivized task. The lack of well-coordinated care may lead to the duplication of services and/or over-involvement of multiple physicians<sup>20</sup>. The FFS model also incentivizes the doctor to schedule more visits with a patient rather than educate that patient on lifestyles less dependent on seeing a physician. As a result, the physicians who are most financially able to encourage less physician-dependent lifestyles or to encourage collaboration among professionals involved in the care of the patient are those physicians who are involved in large, integrated networks. Thus, small providers, who care for approximately 90% of Americans, do not have the financial incentives to provide well-coordinated care<sup>21</sup>. Consequently, large, integrated networks of providers are beginning to govern provisions of health services.

## Evaluation and Management Code Disadvantages

E&M (Evaluation and Management) codes correspond to the services that most require well-coordinated care. An E&M code identifies a service that a physician provides that usually either manages a chronic disease, provides preventative health, or addresses new or undiagnosed problems<sup>9</sup>. Unfortunately, many physicians claim that E&M services are under-compensated, especially by Medicare. Thus, many physicians do not have the financial incentives to provide well-coordinated E&M services to patients with chronic disease. Because treatment of chronic disease accounts for approximately 78% of NHE<sup>22</sup>, there may be severe macroeconomic consequences for not incentivizing its prevention, diagnosis, management, and treatment. In fact, in 2010, while Medicare spent an annual average of \$9,738 per beneficiary, Medicare spent an annual average of \$32,658 per beneficiary diagnosed with six or more chronic conditions<sup>23</sup>. At the same time, over 67% of Medicare's expenditures were for beneficiaries with five or more chronic conditions<sup>24</sup>. Thus, Medicare's poor reimbursement of E&M codes creates a financial disincentive towards decreasing total expenditures, while inadvertently promoting future increases in total expenditures.

## RVU (Relative Value Units) Payment System

As already evident, the Medicare/Medicaid systems, themselves, have inherent flaws that keep FFS models from being a viable long-term option for many healthcare organizations. Many critics to Medicare/Medicaid believe the flaws to be related to the process by which a service is assigned a monetary value. To begin this process, the RBRVS (Resource-Based Relative Value Scale) permits indexing and conversion of CPT codes into dollar units. RVUs (Relative Value Units) are based on the RBRVS and were designed to further increase or decrease monetary return based on several factors, such as how much work is required by the physician, the expense to the practice, and the

practice's liability expenses. Many critics argue that the RVU Payment System values procedures requiring technology or surgery (such as interpreting CT scans or inserting a stent) more highly than procedures requiring evaluation and management (such as diabetes education for newly diagnosed diabetic patients). Thus, the RVU payment system has pushed physicians from evaluation/management towards high-cost/high-tech medicine, as the relative compensation is higher<sup>9</sup>.

### **RUC (Relative value scale Update Committee)**

To better address such problems, the American Medical Association and Medical Specialties Society established the RUC (Relative Value Scale Update Committee). The RUC advises the CMS (Centers for Medicare and Medicaid Services) on updates to RVUs. The RUC, too, has many critics. For one, critics contend that the RUC is mostly composed of specialists, which may be a reason E&M codes are undervalued<sup>25</sup>. Also, the RUC is a private organization, which means that the RUC is not required to disclose any content from the meetings. In fact, from 1994-2010, the CMS adopted 87.4% of the RUC's recommendations<sup>26</sup>, and, due to the privacy of these meetings, evaluators can neither determine how much fault the RUC owes to any failure of the CMS to adequately compensate physicians nor prevent future failures from occurring. Furthermore, the RUC only meets three times a year in order to establish and/or edit these financial projections. Because financial projections do not necessarily equal actual financial expenditures, Congress had to establish a mechanism for correction.

### **SGR (Sustainable Growth Rate)**

The 1997 Balanced Budget Act established the SGR (Sustainable Growth Rate) in order to allow Congress to control the growth of expenditures for physicians' services relative to the growth of GDP. SGR is also highly criticized as, every year since 2002, payments for physician services have exceeded the SGR. Thus, every year, Congress has to increase the budget in order to prevent payment cuts to physicians. Furthermore, from 2002-2013, while the consumer price index rose 20%, physicians' reimbursements from Medicare increased only 3%<sup>9</sup>. As a result of these under-payments, many physicians are less willing to accept any (or as many) Medicare patients. Consequently, the Medicare Payment Advisory Committee's 2014 report stated that the organization's highest priority with respect to physician reimbursement is the urgent removal of SGR<sup>23</sup>.

### **Site-of-Service Differential**

Medicare's systemic problems have not only led to problems with direct physician reimbursement, but also with the site-of-service differential, which indirectly influences compensation. The Medicare Payment Advisory Commission reported that in 2011, Medicare paid 80% more money for a 15-minute office visit in an outpatient department than it paid for that same visit in a freestanding clinic<sup>23</sup>. Concurrently, large hospital systems have been buying independent practices. In fact, from 2002 to 2008, the number of US physician practices owned by hospitals more than doubled<sup>27</sup>. As these physician groups gain market power, they are better able to provide the same services at either a reduced cost or a greater profit<sup>28</sup>. Historically, the larger groups have also used

medical specialists as leverage over independent physicians by refusing to allow referrals from competitors<sup>29</sup>. Furthermore, hospitals with higher market share can negotiate higher physician reimbursements from private insurance companies, and often do, with the increase in compensation rates ranging from less than 5% to 40%<sup>30</sup>.

## Capitation Payment Model

### Advantages to Patient Health/Finances

Capitation, a relatively newer model than FFS, succeeds in many ways where FFS fails. While FFS CPT codes often undervalue preventative services, Capitation places greater long-term emphasis on preventative services. Although preventative services are not directly financially incentivized, early preventative services may prevent predicted expenses from long-term, costly, sick patients (assuming a physician's patients do not change)<sup>31</sup>. Furthermore, as income is not directly related to office visits (as it is in FFS), physicians are free to provide care by phone call, email, home visits, or any other form of communication the physician finds most efficacious. Moreover, since patients' healthcare costs are inversely related to the physician's income, physicians become less incentivized to over-charge<sup>5</sup> and to order unnecessary services for their patients. Consequently, compared with FFS, Capitated patients are more likely to have fewer overall hospitalizations<sup>32</sup>, see specialists less often<sup>33</sup>, and under-utilize potentially harmful over-used procedures<sup>34</sup>. Global capitation thus has the potential to significantly decrease NHEs; however, decreasing the costs often correlates with decreasing the standard of care.

### Disadvantages to Patient Health

Since providing more care costs the physician more money, Capitation incentivizes withholding care from the patient. If the patient is in a Capitated HMO (Health Maintenance Organization) system, there could also be financial restriction of the patient's choice in physicians. Capitation also imposes financial restrictions on the physician. Critics argue that even well adjusted capitation payment methods will fail to compensate physicians for patients who are getting sicker. Thus, patients who are becoming sicker become financial burdens on the physician. Consequently, many physicians will refer these patients to specialists in order to decrease costs<sup>5</sup>. Unfortunately for the patient's finances, these specialists often do more and are paid more assuming the generalist performed the same procedures<sup>6</sup>. Thus, Capitation tends to over-compensate specialists and under-compensate generalists. Consequently, for the generalist, Capitation incentivizes lower risk acceptance (i.e. accepting only health patients). This means that for a Capitated practice to remain financially steady, the practice must balance risk acceptance with its budget.

## Costs of Balancing Risk for the Insurance Company

Risk adjustment is the scale used to address this difference in cost of care among a group of patients to calculate compensation per patient. Commonly used variables include age, gender, diagnosis, and health status information. As anticipated, the variations in healthcare expenditures for a given patient are often unpredictable<sup>35</sup>. For example, in 1992, the mean annual expenses for a Medicare patient with coronary artery disease varied from \$1702 to \$19,959 depending on the patient's additional comorbidity<sup>36</sup>. Cost of care for a given patient is thus based on the average "risk-adjusted" cost of care. This can be problematic when certain risks are either not accounted for, or are under-appreciated. For example, under FFS, an elderly Medicare beneficiary who reports poor health will have approximately five times the healthcare costs of a patient who reports excellent health. However, those two patients may have the same Capitated rate, assuming they were the same age and gender, had the same diagnosis, and lived in the same area<sup>36</sup>. Consequently, practices that care for sicker patients risk substantial losses. Thus, even if risk adjustments are made, practices still need protection from unpredictable and excessive risk.

## Costs of Balancing Risk for the Hospital/Practice

Three methods are currently used for protection from such risk: reinsurance, "stop-loss" clauses, and "risk corridors." Reinsurance covers individual and group expenses over the specified amount. Stop-loss clauses are incorporated into contracts and cover individual expenses over the specified amount. Risk corridors set a range of risk or gain for individual patients, such as covering expenses up to 5% above or below the total Capitated payments stated in the contract. Unfortunately, though, many Capitated physicians lack these loss limits<sup>37</sup>; however, other methods of limiting risk may suffice. Disease carve-outs, for example, limit risk by narrowing the range of services provided under the Capitated contract. Carve-outs could limit providers from specific services, such as mental health, or care for specific disease conditions, such as AIDS. Critics, though, argue that carve-outs undermine the physician-patient relationship by providing disincentives for general physicians to provide comprehensive care<sup>37</sup>. Furthermore, carve-outs may limit access to care, as the referrals are often described as inconvenient and awkward<sup>38</sup>.

Thus, for a capitated practice to succeed, the practice must strategically balance risk over its patient population in order to receive the largest amount of funding while, concurrently, spending as little of the money as possible. Essential to the strategy, determining the minimum number of patients required for net profit in accepting risk becomes particularly difficult. Consequently, many practices do not balance patients with high risk to those with low risk<sup>39</sup> or set the appropriate loss limits to manage excessive risk. Moreover, many smaller practices neither have the financial reserves nor the capital outside of the practice necessary to accurately track resource use<sup>31</sup>. As a result, the Capitation model involves many risks that may not be feasible to smaller or newer practices, and may further contribute to the landscaping of the healthcare market.



## Salary Payment Model

### Practicality

To further exemplify the recent trend away from FFS models, Salary models are increasingly being adopted, most likely due to the growth of physician employment in hospitals and physician groups. Some organizations, including Military and Veterans Affairs health systems, along with some group and staff HMOs, have long incorporated salary as a payment option<sup>5</sup>. However, most U.S. physicians are not contracted to an individual patient, but rather, to a group of patients. Also, because neither Medicare nor Medicaid hires individual physicians, neither system can feasibly pay physicians a salary<sup>40</sup>. Nevertheless, depending on how an organization incorporates salaries into its financial model, that organization can still offer incentives via the Capitation and FFS models. For example, in Capitated practices, salaried physicians may earn bonuses based on the practice's net revenue<sup>41</sup>. In FFS practices, salaried physicians may earn bonuses by meeting established patient quotas<sup>42</sup>. Nonetheless, the Salary model has inherent benefits over the FFS and Capitation models.

### Advantages

For one, there is no incentive for the physician to withhold care from the patient, (as exists with Capitation) and the physician may devote more time to doing what is in the best interests of the patient's health and finances. The salaried physician also lacks the financial incentive to "over-provide" care for his patients, which may have large financial implications for his patients. Moreover, the salaried physician can act in his patients' best interests without personal financial concern. Resultantly, when compared to FFS and Capitation, studies show that patients are more satisfied with access to their salaried physician<sup>8</sup>.

### Disadvantages

Although made accessible to their patients, many physicians in this environment also consider themselves primarily accountable to the organization rather than to the individual patient<sup>43</sup>. Because physician compensation from the Salary model is often directly related to the amount of time worked, work completed by the physician outside of contracted hours may not get reimbursed. Furthermore, seeing more complex patients may decrease the physician's available time to see other patients<sup>5</sup>. Thus, the Salary model neither rewards a physician for taking care of additional and/or more-complex patients (like FFS does) nor rewards the physician for decreasing his patients' total health care expenditures (like Capitation does). As a result, there is no incentive to increase productivity<sup>6</sup>, and these patients often get over-referred to other physicians<sup>9</sup>, potentially transferring a salaried physician's patient into a FFS physician's care.

## Recent Trend: Value Based Systems.

### System-Based Value

The recent trend appears to be towards utilizing models other than FFS to compensate physicians, as evident by the growing number of non-FFS practices. There is a related trend to not only switch to a new model, but to test new models<sup>9</sup>. Much of this trend relates to the desire to base financial systems on “value.” Value-based systems have the goal of disease prevention over disease treatment, and examination/diagnosis over procedures. Capitation is thus an example of a value-based system.

Similar to Capitation, Bundled payments and Episode-Based payments seek to decrease overall costs while increasing medical care. Bundling refers to combining all of the payments associated with an episode of care, and allowing the patient’s physicians’ departments to divide the costs among parties. An example would be if the Orthopedics, Emergency Medicine, and Radiology departments divided the costs associated with evaluating, diagnosing, treating, and managing a patient who visited the Emergency Room after fracturing a bone. Episode-Based payment refers to paying a single provider a set price after an event. Surgeons commonly utilize this method after major procedures by receiving a 90-day global payment period that includes the costs of necessary follow-ups<sup>5</sup>.

### Organization-Based Value

Another model, Accountable Care Organizations, are organizations of health care providers who voluntarily coordinate care in order to give higher quality care to their patient(s). Increasing coordination may increase cost savings for ACOs; however, fairly dividing the potential materialization of cost savings between poorly financially coordinated providers becomes problematic<sup>26</sup>.

Another value-based system, a Patient-Centered Medical Home (PCMH), addresses this weakness by integrating financial coordination among the team. The defining characteristic of a PCMH is patient access to a personal physician who then directs the medical practice’s care team. However, defining what constitutes an adequate medical home becomes problematic<sup>26</sup>. Furthermore, all of the value-based financial systems (i.e. Capitation, Bundled payments, Episode-Based payments, ACOs, and PCMHs) face the same difficulties when assessing a patient who has multiple diseases because value-based systems generally assume independence of these conditions<sup>44</sup>.

## Problems with Recent Trend

### Public vs. Private Insurance

On the other hand, many experts oppose shifting the trend away from FFS models, arguing that FFS is not the problem (i.e. the largest determinant of U.S. healthcare spending). Many argue that administrative costs are the highest financial burden. These costs account for approximately 26.9% of NHE<sup>45</sup> and are often

unnecessary and inflated<sup>46</sup>. Furthermore, many advocates of Medicare call attention to the statistics which reveal that the percentage of administrative costs for competing private health plans (14%-22%) are approximately six-times that of Medicare (3%-8%). However, overall administrative costs are often higher in Medicare patients<sup>47</sup> because these patients cost more overall money, and thus influence a deflation of the percentage of administrative costs. Furthermore, the private sector has to pay state health insurance premium taxes (averaging around 2% depending on the state) as well as the costs associated with non-claim health care expenses, such as having an on-call nurse consultation service<sup>47</sup>. When private insurance plans compete for the same population, the incentive is to avoid paying for care for sicker individuals in order to decrease financial risk. In contrast, Medicare patients are often costly because they are primarily over 65-years-old, disabled, and/or have end-stage renal disease; thus, these patients are neither typical nor wanted in private insurance companies.<sup>45</sup>

### Access to Care

All the while, many physicians currently refuse to accept patients with insurance plans that are difficult to work with and/or do not reimburse well. In a 2014 survey of approximately 24,000 US physicians in 25 different specialties, 5% of employed and 15% of self-employed physicians stated that they do not plan to take new Medicare or Medicaid patients, while 69% of employed physicians and 57% of self-employed physicians plan to both take new Medicare/Medicaid patients and continue seeing current Medicare/Medicaid patients<sup>48</sup>. Furthermore, the number of physicians who have opted out of Medicare tripled between 2009 (3,700 physicians) and 2012 (9,539 physicians); however, these numbers are relatively small<sup>48</sup>. Concurrently, the percentage of physicians who accept new privately insured patients has also decreased at approximately the same rate<sup>49</sup>. Thus, for both Medicare/Medicaid and privately insured patients in the U.S., access to care appears to be decreasing because of the inability of their insurance plans to compensate physicians. Accordingly, approximately 5-10% of NHE encompasses payment for expensive complications resulting from under-treatment related to lack of access to care<sup>45</sup>. However, the lack of access might also be due to the nationwide shortage of physicians, especially primary care physicians<sup>50</sup>, or the fact that many Americans either do not have insurance or do not have enough insurance<sup>51</sup>. Either way, if access to care continues to decrease, NHE may continue to increase.

Ironically, FFS models often increase access to care, as the FFS models incentivize physicians to have increased amounts of patient encounters and to take care of sicker patients. Thus, in order to solve the access problem, shifting the trend back towards the FFS payment model would be a feasible solution. However, there are many inherent flaws in the existing FFS models that indicate future FFS models should be restructured in a way in which FFS becomes more desirable to practices and patients. Although many experts appear to agree that FFS needs to be restructured<sup>9</sup>, they appear to disagree about what needs to be restructured, and how much it needs to be restructured.

## Overtreatment

For example, critics of the FFS model argue that FFS provides the incentive to overtreat. Overtreatment encompasses 10% of NHE<sup>45</sup>. However, critics fail to quantify the percentage of overtreatment expenditure that is the direct, or indirect, consequence of the FFS model. Accordingly, many argue that overtreatment is not a FFS issue, but rather, a cultural issue, arguing that most overtreatment is due to unreasonable demands by patients. In the latter situation, direct-to-consumer advertising for drugs, hospital advertisements, and doctor recommendations have all shown statistically significant evidence in regards to influencing increasingly unreasonable patient demands<sup>52</sup>. Interestingly, other countries with FFS incentives appear to have fewer problems with overtreatment<sup>53</sup>. Even within the United States, studies of regional variation in Medicare spending show that high and low-cost regions utilize FFS equally<sup>54</sup>. Thus, there may be combinations of factors (not only financial) that push physicians to overtreat. The removal of procedures whose benefits are unproven or unnecessary would be a partial solution to this problem. Consequently, in 2010 the ACA (Affordable Care Act) created the Patient-Centered Outcomes Research Institute (PCORI). The goal of the PCORI is to conduct research evaluating and comparing clinical outcomes and assessing the clinical effectiveness, risks, and benefits of medical treatments. However, PCORI's overall effectiveness and cost-effectiveness of these evaluations will have to be weighed against its estimated 10-year \$3.5 billion budget<sup>55</sup>.

## Care-Coordination

Critics pushing the trend away from FFS models also argue that FFS models increase costs by fostering a lack of care-coordination. To investigate this weakness, CMS funded 34 pilot care-coordination projects in order to discover which method(s) of care-coordination should be incorporated into future Medicare/Medicaid models. Interestingly, all 34 pilot programs, designed to increase care-coordination in order to decrease total costs, actually increased total costs. More specifically, each program either failed to reduce any Medicare spending costs, or if it did reduce spending costs, it increased administrative costs more than it decreased spending costs<sup>56</sup>. Thus, there is currently a lack of data that proves that increasing care-coordination will reduce total costs. Few US health reform projects have actually been able to reduce total costs in a manner that does not do so by limiting risk via "cherry-picking" healthier patients and avoiding sicker patients. Two successful programs have been Community Care of North Carolina<sup>57</sup> and Rocky Mountain Health Plans in Colorado<sup>58</sup>. These programs utilize the FFS model, but a restructured FFS model that better increases care-coordination. The two commonalities between these programs that may have led to their success were increasing physician leadership/participation and significantly improving sicker patients' access to outpatient care<sup>45</sup>. The success of these two models and the lack of success of the 34 models funded by CMS imply that restructuring efforts should neither reduce physician nor patient autonomy, but rather, should empower physicians, and afford increased access to care.

## Bundling

A 2012 report by the Department of Health and Human Services identified that Medicare did not properly allocate money to episode-based musculoskeletal surgical services. In fact, the report estimates that Medicare paid approximately \$49 million for E&M services that were not included in the global surgery periods in 2007.<sup>59</sup> Consequently, in November 2014, the CMS changed its policy regarding global surgery periods. By 2018, all 10- or 90-day global periods will change to a 0-day global period. This change is most expected to primarily affect surgeons, and may provide many new incentives for physicians who earn much of their revenue through global payment periods. Physicians may respond by seeing patients more frequently in order to receive similar E&M payments, a practice referred to as “unbundling.” Physicians may also respond by performing more procedures.<sup>60</sup> Thus, the CMS’s departure from bundling may incentivize FFS (with all of its advantages and disadvantages).

## Future Trend: Restructuring FFS.

### Pay-For-Performance (P4P)

Furthermore, experts believe the restructuring of FFS should involve shifting focus on ways to reward improving cost-effective quality of care while penalizing the opposite. Consequently, the ACA created a “value-based modifier” in Medicare physician reimbursement that went into effect in 2015<sup>2</sup>. A comparable program currently in existence is the P4P (Pay-For-Performance) program. The objective of P4P, and other value-based systems, is to financially reward (or penalize) physicians in any healthcare financial model for meeting (or not meeting) predetermined performance measures. For P4P, these measures typically include procedural outcome, physician spending, and/or patient satisfaction. Several companies have successfully designed P4P programs. One of such programs, UnitedHealthcare’s Premium Designation Program, evaluates approximately 250,000 physicians, who utilize multiple types of payment models. This program found significantly lower complication rates (than the nation-wide averages) for many procedures, such as arthroscopic knee surgery and stent placement, among physicians who met their value standards. Concurrently, procedures, on average, cost approximately 14% less from physicians who met their value standards than they did from specialists who did not<sup>61</sup>. However, current data on the effectiveness of P4P is mixed<sup>62</sup>. A 2007 systematic review found that P4P programs showed no statistically significant cost savings over other programs, theoretically because many other programs already utilize some form of incentive program<sup>63</sup>. The fundamental problem in P4P appears to be the inability to define relevant and specific standards of performance that would accurately compare physicians across the country<sup>5</sup>. Furthermore, P4P only addresses physicians, and physicians may not be the only problem. Insurers are being increasingly blamed for decreasing cost-effective quality of care.

## Medical Loss Ratio (MLR)

In 2011, the ACA created a law known as the MLR (Medical Loss Ratio) rule, also known as the 80/20 rule. The MLR rule requires insurers to spend at least 80% of a patient's premium on healthcare for that patient. The insurers are further required to refund any leftover money to the patient rather than collect the money as profit. As a result, the U.S. Department of Health and Human Services reported that, since adoption of the MLR rule in 2011, consumers have saved a total of \$9 billion on healthcare premiums, which is an average of \$80 per family per year.<sup>64</sup> Consequently, emphasis may need to shift away from correctly incentivizing physicians, and shift towards limiting unnecessary and/or substantial profits of healthcare insurance companies. Nevertheless, little data supports one target of healthcare reform over another or the efficacy of one financial healthcare model over another in terms of successfully pleasing all parties involved in healthcare.

## Conclusion

Among similar healthcare models, some practices and/or corporations succeed, while others fail. Michael Young, President and CEO of Grady Health Systems in Atlanta, characterized these points in a lecture to Emory's Goizueta Business School by saying, "We innovate by plagiarism... ..Go look at your competitors and see what works."<sup>65</sup> While the ACA shapes healthcare delivery in the U.S., practices, hospitals, and legislators should concurrently notate what variances of financial models do and do not work while keeping instated models subject to change. Recently, this trend is moving away from FFS models, as demonstrated by the rising percentages of Capitation, Salary, and other types of models. In the future, FFS will most likely be restructured in a way that makes it more successful than it currently is within the market. The recent pushes to fund PCORI, eliminate SGR, establish P4P, update CPT and E&M codes, and promote other efforts further imply that the FFS model's (or at least Medicare's) restructuring should be more expected than the FFS model's elimination. Nevertheless, the only guarantee for the future of U.S. healthcare financial models is change.

## Additional Author Information

Matthew Chase Lustig, MBA  
Medical College of Georgia at the Augusta University  
University of Georgia Medical Partnership  
Athens/Georgia/United States  
MCLustig@uga.edu, 678-414-7717

## Works Cited

---

- <sup>1</sup> Goodson JD, Bierman AS, Fein O, Rask K, Rich EC, Selker HP. The future of capitation the physician role in managing change in practice. *Journal of General Internal Medicine* [Internet]. 2001;16(4): 250-256. Available from: [Http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1495203/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1495203/)
- <sup>2</sup> Ginsburg PB. Fee-for-service will remain a feature of major payment reforms, requiring more changes in medicare physician payment. *Health Affairs* [Internet]. 2012 Sep 4 [cited 2014 Jul 22];31(9): 1977-1983. Cochrane Collection. Available from: [Http://www.ncbi.nlm.nih.gov/pubmed/22949446](http://www.ncbi.nlm.nih.gov/pubmed/22949446)
- <sup>3</sup> Orszag PR, Ellis P. The challenge of rising health care costs — a view from the congressional budget office. *New England Journal of Medicine* [Internet]. 2007 Nov 1 [cited 2014 Jul 22];357(18): 1793-1795. Cochrane Collection. Available from: [Http://www.nejm.org/doi/full/10.1056/NEJMp078190](http://www.nejm.org/doi/full/10.1056/NEJMp078190)
- <sup>4</sup> Kaiser Family Foundation. Health care costs- a primer: key information on health care costs and their impact. *Journal of General Internal Medicine* [Internet]. 2012 May;16(4): 250-256. Available from: [Http://kaiserfamilyfoundation.files.wordpress.com/2013/01/7670-03.pdf](http://kaiserfamilyfoundation.files.wordpress.com/2013/01/7670-03.pdf)
- <sup>5</sup> Berenson RA, Rich EC. US approaches to physician payment: the deconstruction of primary care. *Journal of General Internal Medicine* [Internet]. 2010 May 14 [cited 2014 Jul 22];25(6): 613-618. Cochrane Collection. Available from: [Http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2869428/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2869428/)
- <sup>6</sup> Robinson JC. Theory and practice in the design of physician payment incentives. *The Milbank Quarterly* [Internet]. 2001 Jun 20 [cited 2014 Jul 22];79(2): 149-177. Cochrane Collection. Available from: [Http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2751195/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2751195/)
- <sup>7</sup> Grant RW, Ashburner JM, Hong CS, Chang Y, Barry MJ, Atlas SJ. Defining patient complexity from the primary care physician's perspective. *Annals of Internal Medicine* [Internet]. 2011 Dec 20 [cited 2014 Jul 22];155(12): 797-852. Cochrane Collection. Available from: [Http://www.ncbi.nlm.nih.gov/pubmed/22184686](http://www.ncbi.nlm.nih.gov/pubmed/22184686)
- <sup>8</sup> Gosden T. Some evidence to suggest that the way in which primary care physicians are paid may affect their clinical behavior. *Journal of General Internal Medicine* [Internet]. 2011 Oct 5;16(4): 250-256. Cochrane Collection. Available from: [Http://summaries.cochrane.org/CD002215/some-evidence-to-suggest-that-the-way-in-which-primary-care-physicians-are-paid-may-affect-their-clinical-behaviour](http://summaries.cochrane.org/CD002215/some-evidence-to-suggest-that-the-way-in-which-primary-care-physicians-are-paid-may-affect-their-clinical-behaviour)

- 
- <sup>9</sup> Schroeder S. Report of the national commission on physician payment reform. *Journal of General Internal Medicine* [Internet]. 2013 Mar 20 [cited 2014 Jul 22];22(3): 410-415. Cochrane Collection. Available from: [Http://physicianpaymentcommission.org/wp-content/uploads/2013/03/physician\\_payment\\_report.pdf](http://physicianpaymentcommission.org/wp-content/uploads/2013/03/physician_payment_report.pdf)
- <sup>10</sup> Clement DG. Access and outcomes of elderly patients enrolled in managed care. *JAMA* [Internet]. 1994 Jul 27;16(4): 250-256. Cochrane Collection. Available from: [Http://www.ncbi.nlm.nih.gov/pubmed/8176827](http://www.ncbi.nlm.nih.gov/pubmed/8176827)
- <sup>11</sup> Ransom SB. The effect of capitated and fee-for-service remuneration on physician decision making in gynecology. *Obstetrics and Gynecology* [Internet]. 1996 May 24 [cited 2014 Jul 21];87(5): 707-710. Cochrane Collection. Available from: [Http://www.ncbi.nlm.nih.gov/pubmed/8677071](http://www.ncbi.nlm.nih.gov/pubmed/8677071)
- <sup>12</sup> Goldzweig CL. Variations in cataract extraction rates in medicare prepaid and fee-for-service settings. *JAMA* [Internet]. 1997 Jun 11 [cited 2014 Jul 21];277(22): 1765-1768. Cochrane Collection. Available from: [Http://www.ncbi.nlm.nih.gov/pubmed/9178788](http://www.ncbi.nlm.nih.gov/pubmed/9178788)
- <sup>13</sup> Greenfield S. Variations in resource utilization among medical specialties and systems of care. results from the medical outcomes study. *JAMA* [Internet]. 1992 Mar 25 [cited 2014 Jul 21];267(12): 1624-1630. Cochrane Collection. Available from: [Http://www.ncbi.nlm.nih.gov/pubmed/1542172](http://www.ncbi.nlm.nih.gov/pubmed/1542172)
- <sup>14</sup> Miller RH. Managed care plan performance since 1980. a literature analysis. *JAMA* [Internet]. 1994 May 18 [cited 2014 Jul 21];271(19): 1512-1519. Cochrane Collection. Available from: [Http://www.ncbi.nlm.nih.gov/pubmed/8176832](http://www.ncbi.nlm.nih.gov/pubmed/8176832)
- <sup>15</sup> Epstein AM, Begg CB, Mcneil BJ. The use of ambulatory testing in prepaid and fee-for-service group practices. *New England Journal of Medicine* [Internet]. 1986 Apr 24;314(17): 1089-1094. Cochrane Collection. Available from: [Http://www.nejm.org/doi/full/10.1056/NEJM198604243141706](http://www.nejm.org/doi/full/10.1056/NEJM198604243141706)
- <sup>16</sup> Murray JP. The use of ambulatory testing in prepaid and fee-for-service group practices. relation to perceived profitability. *Medical Care* [Internet]. 1992 Mar 24 [cited 2014 Jul 21];30(3): 1089-1094. Cochrane Collection. Available from: [Http://www.ncbi.nlm.nih.gov/pubmed/1538613](http://www.ncbi.nlm.nih.gov/pubmed/1538613)
- <sup>17</sup> Mitchell JM, Sunshine JH. Consequences of physicians' ownership of health care facilities — joint ventures in radiation therapy. *New England Journal of Medicine* [Internet]. 1992 Nov 19 [cited 2014 Jul 21];327(21): 1497-1501. Cochrane Collection. Available from: [Http://www.nejm.org/doi/full/10.1056/NEJM199211193272106](http://www.nejm.org/doi/full/10.1056/NEJM199211193272106)



- 
- <sup>18</sup> Swedlow A, Johnson G, Smithline N, Milstein A. Increased costs and rates of use in the california workers' compensation system as a result of self-referral by physicians. *New England Journal of Medicine* [Internet]. 1992 Nov 19 [cited 2014 Jul 21];327(21): 1502-1506. Cochrane Collection. Available from: [Http://www.nejm.org/doi/full/10.1056/NEJM199211193272107](http://www.nejm.org/doi/full/10.1056/NEJM199211193272107)
- <sup>19</sup> Yarnall KSH, Pollak KI, Østbye T, Krause KM, Michener JL. Primary care: is there enough time for prevention?. *American Journal of Public Health* [Internet]. 2003 Apr 14 [cited 2014 Jul 22];93(4): 635-641. Cochrane Collection. Available from: [Http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1447803/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1447803/)
- <sup>20</sup> Davis K. Paying for care episodes and care coordination. *New England Journal of Medicine* [Internet]. 2007 Mar 15 [cited 2014 Jul 22];356(11): 1166-1168. Cochrane Collection. Available from: [Http://www.nejm.org/doi/full/10.1056/NEJMe078007](http://www.nejm.org/doi/full/10.1056/NEJMe078007)
- <sup>21</sup> Isaacs SL, Jellinek PS, Ray WL. The independent physician — going, going . . . *New England Journal of Medicine* [Internet]. 2009 Feb 12 [cited 2014 Jul 22];360(7): 655-657. Cochrane Collection. Available from: [Http://www.nejm.org/doi/full/10.1056/NEJMp0808076](http://www.nejm.org/doi/full/10.1056/NEJMp0808076)
- <sup>22</sup> Bodenheimer T, Chen E, Bennett HD. Confronting the growing burden of chronic disease: can the us health care workforce do the job?. *Health Affairs* [Internet]. 2009 Mar 15 [cited 2014 Jul 22];28(1): 64-74. Cochrane Collection. Available from: [Http://www.ncbi.nlm.nih.gov/pubmed/19124856](http://www.ncbi.nlm.nih.gov/pubmed/19124856)
- <sup>23</sup> Hackbarth GM. Medicare payment policy: Report to congress. MedPAC; 2014 pp. 64-74. Cochrane Collection. Available from: [Http://www.medpac.gov/documents/mar14\\_entirereport.pdf](http://www.medpac.gov/documents/mar14_entirereport.pdf)
- <sup>24</sup> Anderson G. Chronic care: making the case for ongoing care. *Projecting the Supply and Demand for Primary Care Practitioners Through 2020* [Internet]. 2010 Nov 25 [cited 2014 Jul 22];32(8): 1426-1432. Cochrane Collection. Available from: [Http://www.rwjf.org/en/research-publications/find-rwjf-research/2010/01/chronic-care.html](http://www.rwjf.org/en/research-publications/find-rwjf-research/2010/01/chronic-care.html)
- <sup>25</sup> Nonnemaker KL, Thomas S, Dubow J. Physician payment: Current system and opportunities for reform. AARP Public Policy Institute; 2009 pp. 965-972. Cochrane Collection. Available from: [Http://assets.aarp.org/rgcenter/health/2009\\_09\\_payment.pdf](http://assets.aarp.org/rgcenter/health/2009_09_payment.pdf)
- <sup>26</sup> Laugesen MJ, Wada R, Chen EM. In setting doctors' medicare fees, cms almost always accepts the relative value update panel's advice on work values. *Health Affairs*

---

[Internet]. 2012 May 7 [cited 2014 Jul 22];31(5): 965-972. Cochrane Collection. Available from: [Http://www.ncbi.nlm.nih.gov/pubmed/22566435](http://www.ncbi.nlm.nih.gov/pubmed/22566435)

- <sup>27</sup> Kocher R, Sahni NR. Hospitals' race to employ physicians — the logic behind a money-losing proposition. *New England Journal of Medicine* [Internet]. 2011 May 12 [cited 2014 Jul 22];364(19): 1790-1793. Cochrane Collection. Available from: [Http://www.nejm.org/doi/full/10.1056/NEJMp1101959](http://www.nejm.org/doi/full/10.1056/NEJMp1101959)
- <sup>28</sup> Gal-Or E. The profitability of vertical mergers between hospitals and physician practices. *Journal of Health Economics* [Internet]. 1999 Oct 12 [cited 2014 Jul 22];18(5): 623-654. Cochrane Collection. Available from: [Http://www.ncbi.nlm.nih.gov/pubmed/10621368](http://www.ncbi.nlm.nih.gov/pubmed/10621368)
- <sup>29</sup> Bacher GE, Chernew ME, Kessler DP, Weiner SM. Regulatory neutrality is essential to establishing a level playing field for accountable care organizations. *Health Affairs* [Internet]. 2013 Aug 5 [cited 2014 Jul 22];32(8): 1426-1432. Cochrane Collection. Available from: [Http://www.ncbi.nlm.nih.gov/pubmed/23918487](http://www.ncbi.nlm.nih.gov/pubmed/23918487)
- <sup>30</sup> Mathews AW. Same doctor visit, double the cost. *The Wall Street Journal* [Internet]. 2012 Aug 27 [cited 2014 Jul 22];32(8): 1426-1432. Cochrane Collection. Available from: [Http://online.wsj.com/news/articles/SB10000872396390443713704577601113671007448](http://online.wsj.com/news/articles/SB10000872396390443713704577601113671007448)
- <sup>31</sup> Goodson JD, Bierman AS, Fein O, Rask K, Rich EC, Selker HP. The future of capitation the physician role in managing change in practice. *Journal of General Internal Medicine* [Internet]. 2001;16(4): 250-256. Available from: [Http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1495203/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1495203/)
- <sup>32</sup> Manning WG, Leibowitz A, Goldberg GA, Rogers WH, Newhouse JP. A controlled trial of the effect of a prepaid group practice on use of services. *New England Journal of Medicine* [Internet]. 1984 Jun 7 [cited 2014 Jul 22];310(23): 1505-1510. Cochrane Collection. Available from: [Http://www.nejm.org/doi/full/10.1056/NEJM198406073102305](http://www.nejm.org/doi/full/10.1056/NEJM198406073102305)
- <sup>33</sup> Cooper PF. Patient choice of physician: do health insurance and physician characteristics matter?. *Inquiry* [Internet]. 1996 Jun 7 [cited 2014 Jul 22];33(3): 237-246. Cochrane Collection. Available from: [Http://www.ncbi.nlm.nih.gov/pubmed/8883458](http://www.ncbi.nlm.nih.gov/pubmed/8883458)
- <sup>34</sup> Kerr EA, Mittman BS, Hays RD, Leake B, Brook RH. Quality assurance in capitated physician groups: where is the emphasis?. *JAMA: The Journal of the American Medical Association* [Internet]. 1996 Oct 16 [cited 2014 Jul 22];276(15): 1236-1239. Cochrane Collection. Available from: [Http://www.ncbi.nlm.nih.gov/pubmed/8849751](http://www.ncbi.nlm.nih.gov/pubmed/8849751)

- 
- <sup>35</sup> Ingber MJ. The current state of risk adjustment technology for capitation. *Journal of Ambulatory Care Management* [Internet]. 1998 Oct 21 [cited 2014 Jul 21];21(4): 1-28. Cochrane Collection. Available from: [Http://www.ncbi.nlm.nih.gov/pubmed/10387435](http://www.ncbi.nlm.nih.gov/pubmed/10387435)
- <sup>36</sup> Mcnamara RL, Powe NR, Shaffer T, Thiemann D, Weller W, Anderson G. Capitation for cardiologists: accepting risk for coronary artery disease under managed care. *The American Journal of Cardiology* [Internet]. 1998 Nov 15 [cited 2014 Jul 21];82(10): 1178-1182. Cochrane Collection. Available from: [Http://www.ncbi.nlm.nih.gov/pubmed/9832090](http://www.ncbi.nlm.nih.gov/pubmed/9832090)
- <sup>37</sup> Simon CJ, Emmons DW. Physician earnings at risk: an examination of capitated contracts. *Health Affairs* [Internet]. 1997 Nov 15 [cited 2014 Jul 21];16(3): 120-126. Cochrane Collection. Available from: [Http://www.ncbi.nlm.nih.gov/pubmed/9141328](http://www.ncbi.nlm.nih.gov/pubmed/9141328)
- <sup>38</sup> Jellinek MS. Two wrongs don't make a right. managed care, mental health, and the marketplace. *JAMA* [Internet]. 1993 Oct 13 [cited 2014 Jul 22];270(14): 1737-1739. Cochrane Collection. Available from: [Http://www.ncbi.nlm.nih.gov/pubmed/8411506](http://www.ncbi.nlm.nih.gov/pubmed/8411506)
- <sup>39</sup> Grumbach K, Osmond D, Vranizan K, Jaffe D, Bindman AB. Primary care physicians' experience of financial incentives in managed-care systems. *New England Journal of Medicine* [Internet]. 1998 Nov 19 [cited 2014 Jul 22];339(21): 1516-1521. Cochrane Collection. Available from: [Http://www.nejm.org/doi/full/10.1056/NEJM199811193392106](http://www.nejm.org/doi/full/10.1056/NEJM199811193392106)
- <sup>40</sup> Casalino LP, November EA, Berenson RA, Pham HH. Hospital-physician relations: two tracks and the decline of the voluntary medical staff model. *Health Affairs* [Internet]. 2008 Oct 14 [cited 2014 Jul 22];27(5): 1305-1314. Cochrane Collection. Available from: [Http://www.ncbi.nlm.nih.gov/pubmed/18780916](http://www.ncbi.nlm.nih.gov/pubmed/18780916)
- <sup>41</sup> Kralewski JE. The effects of medical group practice and physician payment methods on costs of care. *Health Services Research* [Internet]. 2000 Aug 14 [cited 2014 Jul 22];35(3): 591-613. Cochrane Collection. Available from: [Http://www.ncbi.nlm.nih.gov/pubmed/10966087/](http://www.ncbi.nlm.nih.gov/pubmed/10966087/)
- <sup>42</sup> Robinson JC, Shortell SM, Li R, Casalino LP, Rundall T. The alignment and blending of payment incentives within physician organizations. *Health Services Research* [Internet]. 2004 Oct 14 [cited 2014 Jul 22];39(5): 1589-1606. Cochrane Collection. Available from: [Http://www.ncbi.nlm.nih.gov/pubmed/15333124](http://www.ncbi.nlm.nih.gov/pubmed/15333124)

- 
- <sup>43</sup> Goroll AH, Berenson RA, Schoenbaum SC, Gardner LB. Fundamental reform of payment for adult primary care: comprehensive payment for comprehensive care. *Journal of General Internal Medicine* [Internet]. 2007 Mar 20 [cited 2014 Jul 22];22(3): 410-415. Cochrane Collection. Available from: [Http://www.ncbi.nlm.nih.gov/pubmed/17356977](http://www.ncbi.nlm.nih.gov/pubmed/17356977)
- <sup>44</sup> Wolff JL. Moving beyond round pegs and square holes: restructuring medicare to improve chronic care. *Annals of Internal Medicine* [Internet]. 2005 Sep 20 [cited 2014 Jul 22];143(6): 439-1314. Cochrane Collection. Available from: [Http://www.ncbi.nlm.nih.gov/pubmed/16172442](http://www.ncbi.nlm.nih.gov/pubmed/16172442)
- <sup>45</sup> Kemble S. Fee-for-service is not the problem. *Physicians for a National Health Program* [Internet]. 2012 Jul 14 [cited 2014 Jul 22];349(8): 768-775. Cochrane Collection. Available from: [Http://www.pnhp.org/news/2012/july/fee-for-service-is-not-the-problem](http://www.pnhp.org/news/2012/july/fee-for-service-is-not-the-problem)
- <sup>46</sup> Woolhandler S, Campbell T, Himmelstein DU. Costs of health care administration in the united states and canada. *New England Journal of Medicine* [Internet]. 2003 Aug 21 [cited 2014 Jul 22];349(8): 768-775. Cochrane Collection. Available from: [Http://www.nejm.org/doi/full/10.1056/NEJMsa022033#t=articleResults](http://www.nejm.org/doi/full/10.1056/NEJMsa022033#t=articleResults)
- <sup>47</sup> Book RA. Medicare administrative costs are higher, not lower, than for private insurance. *The Heritage Foundation* [Internet]. 2009 Jun 25 [cited 2014 Jul 22];32(8): 1426-1432. Cochrane Collection. Available from: [Http://www.heritage.org/research/reports/2009/06/medicare-administrative-costs-are-higher-not-lower-than-for-private-insurance#\\_ftn6](http://www.heritage.org/research/reports/2009/06/medicare-administrative-costs-are-higher-not-lower-than-for-private-insurance#_ftn6)
- <sup>48</sup> Kane L. Medscape physician compensation report 2014. *Medscape Physician Compensation Report 2014* [Internet]. 2014 Apr 15 [cited 2014 Jul 22];32(8): 1426-1432. Cochrane Collection. Available from: [Http://www.medscape.com/features/slideshow/compensation/2014/public/overview#12](http://www.medscape.com/features/slideshow/compensation/2014/public/overview#12)
- <sup>49</sup> Shartzter A. Access to physicians' services for medicare beneficiaries. *The Heritage Foundation* [Internet]. 2013 Aug 25 [cited 2014 Jul 22];32(8): 1426-1432. Cochrane Collection. Available from: [Http://aspe.hhs.gov/health/reports/2013/PhysicianMedicare/ib\\_physicianmedicare.cfm](http://aspe.hhs.gov/health/reports/2013/PhysicianMedicare/ib_physicianmedicare.cfm)
- <sup>50</sup> HRSA. Projecting the supply and demand for primary care practitioners through 2020. *Projecting the Supply and Demand for Primary Care Practitioners Through 2020* [Internet]. 2013 Nov 25 [cited 2014 Jul 22];32(8): 1426-1432. Cochrane Collection. Available from: [Http://bhpr.hrsa.gov/healthworkforce/supplydemand/usworkforce/primarycare/](http://bhpr.hrsa.gov/healthworkforce/supplydemand/usworkforce/primarycare/)

- 
- <sup>51</sup> DeNavas-Walt C, Proctor BD, Smith JC. Income, poverty, and health insurance coverage in the united states: 2012. Projecting the Supply and Demand for Primary Care Practitioners Through 2020 [Internet]. 2013 Sep 25 [cited 2014 Jul 22];32(8): 1426-1432. Cochrane Collection. Available from: <Http://www.census.gov/prod/2013pubs/p60-245.pdf>
- <sup>52</sup> Murray E, Lo B, Pollack L, Donelan K, Lee K. Direct-to-consumer advertising: physicians' views of its effects on quality of care and the doctor-patient relationship. *The Journal of the American Board of Family Medicine* [Internet]. 2003 May 14 [cited 2014 Jul 22];16(6): 513-524. Cochrane Collection. Available from: <Http://www.ncbi.nlm.nih.gov/pubmed/14963078>
- <sup>53</sup> Kumar AS. Overdiagnosis and overtreatment of breast cancer. *Breast Cancer Research* [Internet]. 2005 Nov 11 [cited 2014 Jul 22];7(6): 271-275. Cochrane Collection. Available from: <Http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1410763/>
- <sup>54</sup> Fisher ES, Bynum JP, Skinner JS. Slowing the growth of health care costs — lessons from regional variation. *New England Journal of Medicine* [Internet]. 2009 Feb 26 [cited 2014 Jul 22];360(9): 849-852. Cochrane Collection. Available from: <Http://www.nejm.org/doi/full/10.1056/NEJMp0809794>
- <sup>55</sup> PCORI. How we're funded. PatientCentered Outcomes Research Institute [Internet]. 2014 Nov 11 [cited 2014 Jul 22];7(6): 271-275. Cochrane Collection. Available from: <Http://www.pcori.org/about-us/how-were-funded/>
- <sup>56</sup> Nelson L. Lessons from medicare's demonstration projects on disease management, care coordination, and value-based payment. Congressional Budget Office; 2012 pp. 797-852. Cochrane Collection. Available from: <Http://www.cbo.gov/sites/default/files/cbofiles/attachments/01-18-12-MedicareDemoBrief.pdf>
- <sup>57</sup> Artiga S. Community care of north carolina: putting health reform ideas into practice in medicaid. Lessons from Medicare's Demonstration Projects on Disease Management, Care Coordination, and Value-based Payment [Internet]. 2009 May 20 [cited 2014 Jul 22];155(12): 797-852. Cochrane Collection. Available from: <Http://kaiserfamilyfoundation.files.wordpress.com/2013/01/7899.pdf>
- <sup>58</sup> Bodenheimer T, West D. Low-cost lessons from grand junction, colorado. *New England Journal of Medicine* [Internet]. 2010 Oct 7 [cited 2014 Jul 22];363(15): 1391-1393. Cochrane Collection. Available from: <http://www.nejm.org/doi/full/10.1056/NEJMp1008450>

- 
- <sup>59</sup> Levinson D. Musculoskeletal Global Surgery Fees Often Did Not Reflect The Number of Evaluation and Management Services Provided [Internet]. Washington DC: Department of Health and Human Services; c2012 [updated 2012 May 1]. Available from: <https://oig.hhs.gov/oas/reports/region5/50900053.pdf>
- <sup>60</sup> Mulcahy A. Medicare's Step Back from Global Payments — Unbundling Postoperative Care. *NEJM* [Internet]. 2015 Apr 9;(372):1385-1387. Available from: <http://www.nejm.org/doi/full/10.1056/NEJMp1415483>
- <sup>61</sup> Stevens S. Farewell to fee-for-service?: a “real world” strategy for health care payment reform. *Health Affairs* [Internet]. 2012 Dec 5 [cited 2014 Jul 22];32(8): 1426-1432. Cochrane Collection. Available from: [Http://www.uhc.com/live/uhc\\_com/Assets/Documents/HealthCarePaymentReform.pdf](Http://www.uhc.com/live/uhc_com/Assets/Documents/HealthCarePaymentReform.pdf)
- <sup>62</sup> Sorbero ME. Assessment of pay-for-performance options for medicare physician services: final report. *Physician Payment: Current System and Opportunities for Reform* [Internet]. 2006 May 7 [cited 2014 Jul 22];31(5): 965-972. Cochrane Collection. Available from: [Http://www.rand.org/content/dam/rand/pubs/working\\_papers/2010/RAND\\_WR391.pdf](Http://www.rand.org/content/dam/rand/pubs/working_papers/2010/RAND_WR391.pdf)
- <sup>63</sup> Christianson JB, Leatherman S, Sutherland K. Lessons from evaluations of purchaser pay-for-performance programs: a review of the evidence. *Medical Care Research and Review* [Internet]. 2008 Dec 1 [cited 2014 Jul 22];65(6 Suppl): 5S-35S. Cochrane Collection. Available from: <Http://www.ncbi.nlm.nih.gov/pubmed/19015377>
- <sup>64</sup> HHS. Consumers have saved a total of \$9 billion on premiums. [Internet]. 2014 Jul 24. Available from: <http://www.hhs.gov/news/press/2014pres/07/20140724a.html>
- <sup>65</sup> Young M. Goizueta business school healthcare forum. iTunes [Internet]. 2010 Nov 11 [cited 2014 Jul 22];7(6): 271-275. Cochrane Collection. Available from: <Https://itunes.apple.com/gb/podcast/goizueta-business-school-healthcare/id422854457?i=91634949&mt=2>