Analysis of Actual Versus Projected Medical Claims Under the First Year of ACA-Mandated Coverage

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Abstract
For the individual market, 2014 was the first year Affordable Care Act medical claims experience data were available to set 2016 rates. Accessing Centers for Medicare and Medicaid Services rate data for 175 state insurers, this study compares projected medical claims with actual medical claims of 2014, as well as the cost and utilization of benefit categories for inpatient, outpatient, professional, and prescription drug spending. Actual costs per member per month (pmpm) were greater than projected in 2014 for inpatient, outpatient, and prescription spending but not for professional care. Overall, actual median medical cost was $443 pmpm, which was significantly higher by $41 than projected cost. Greater utilization of health care was primarily responsible for higher realized medical claims. In terms of the specific benefit categories—inpatient, outpatient, and prescription—actual costs pmpm were significantly higher than projected values. In terms of the drivers of inpatient costs, on an admission basis, higher costs and greater utilization of admissions resulted in higher inpatient costs. For outpatient costs pmpm, higher utilization rather than unit cost per visit drove increased costs. Higher than expected prescription drug costs were driven by both greater utilization and cost per prescription.

Keywords
ACA, medical claims, benefits, health care utilization, individual market

Introduction
Implementation of the Affordable Care Act’s (ACA) reforms to make the individual health insurance market more accessible and affordable began January 1, 2014. In addition to preventing denial of coverage based on preexisting conditions, the ACA requires insurers base premiums for the individual market on a single risk profile of individuals within a state. The law prohibits medical underwriting of ACA-compliant individual policies but allows for limited variation in premiums based on age, family size, geographic location, and tobacco use.¹

For 2014 and 2015, the initial years for marketplace changes, insurers were obligated to set premiums without having a baseline of experience in medical spending for a single risk pool of individuals in each state.² There is evidence that, on the average, realized medical costs for 2014 were higher than what insurers projected, and there are indications that medical costs have been driving rate increases.³,⁴

This study aims to examine the underlying drivers of medical claims incurred on the individual market exchange during the first year of mandated coverage by assessing the cost and utilization of spending by benefit categories (inpatient, outpatient, professional, and prescription drugs). Projections for spending by benefit category in the 2014 rate review submissions by insurers are compared with actual experience for 2014 as reported in the 2016 rate review submissions to the Centers for Medicare and Medicaid Services (CMS). Cost and utilization of benefit categories for inpatient, outpatient, professional, and prescription drug spending are included. Results provide a more refined lens for greater understanding of the dynamics faced by insurers in 2014 and insight for managing costs and competing on value.

Study Data and Methods
The sample is collected by the Center for Consumer Information and Insurance Oversight (CCIIO) under CMS. CCIIO requires all individual plans that are compliant with the single risk pool requirement of the ACA to submit their

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rate filing data through the “unified rate review template” (URRT). Insurers use a single risk pool to set rates for individual markets, and issuers submit data for plans offered both “inside” or “on” public marketplace exchanges, as well as “outside” or “off” exchanges in the private marketplace. This study uses CCIO public use files, specifically Parts I and II of the unified rate review filings, for single risk pools for analysis of medical spending in individual insurance markets. The rate review data include a market experience section, which, for 336 state insurers, develops projected single risk pool rates from the prior experience of 2014.

Projections for spending by benefit category made by individual health insurers in the 2014 rate review submissions are compared with actual experience for 2014 as reported in the 2016 rate review submissions. Cost and utilization of benefit categories for inpatient, outpatient, professional, and prescription drug spending are included as well.

Inpatient services accounted for medical, surgical, maternity, mental health, and substance services occurring inside an inpatient setting. Outpatient services accounted for emergency room, laboratory, radiology, therapy, observation, and other services provided in an outpatient setting. Professional services accounted for claims from primary care, specialist, therapy, the professional component of laboratory and radiology, and other professional services, other than hospital-based professionals whose payments are included in facility fees. Prescriptions benefits accounted for claims from drugs dispensed by a pharmacy.

The initial reported sample of unique state insurers in the 2016 rate review data was 543, excluding 77 deactivated state insurers. We identified 339 state insurers that reported 2014 actual experience benefit category data in 2016 rate filings, as well as their projected rating filings for 2014. Insurers with less than 1000 members were excluded to improve actuarial credibility, leaving 250 issuers. To focus on the impact of single risk pool ACA claims, we also excluded state issuers that had more than 10% of their members in non-single risk pools and transitional plans, which resulted in a final sample of 175 state insurers. We matched the 175 state insurers’ actual experience in 2014 to their 2014 projected rate filing experience. We identified each state issuer’s total actual and projected costs per member per month (pmpm) and the specific benefit components of inpatient, outpatient, professional, and prescription drugs.

In addition to total costs per benefit, we also assessed its underlying drivers, specifically the cost per service and utilization per service per 1000 covered members. Unfortunately, not all state insurers applied the same utilization descriptions (inpatient days, admits, services, etc) for actual experience reported in 2016 rates to their projected data in 2014. For example, in the case of inpatient benefits, 40 insurers used admissions for a basis of measurement for both their actual and projected periods and 90 state insurers used inpatient days for both actual and projected periods. The remaining 45 issuers either used a different measurement basis from actual to projected periods or other basis of measurement. Therefore, the sample sizes for utilization and cost per benefit category are smaller than the final sample of total costs pmpm. Within the remaining benefit categories, there were other basis of measurements as well (ie, outpatient care was reported both as visits and as services). Comparing the differences of each state insurer’s claims from the actual experience period matched to its projected period provides a control for differences in utilization, case management (ie, prior authorization, discharge planning, onsite review, disease management, etc), and provider contracting across insurers.

Membership of our final sample of 175 ACA-compliant issuers reporting 2014 actual experience totaled 5.5 million members. The estimated total membership of all 543 issuers in 2014 was approximately 9.2 million members in ACA-compliant plans.5 As a result, our final sample represents almost 60% of the ACA individual market population. To control for membership size, differences, and the nonnormality of the data distribution, we computed median values of the cost for each benefit category. We applied the nonparametric signed-rank paired test to test for significant differences between projected and actual median values. Because we matched each pair, each insurer acted as its own control, which reduces statistical error and increases statistical power. The study compared the 2014 actual costs pmpm with the 2014 projected costs pmpm and differences in cost and utilization across the benefit categories of inpatient, outpatient, professional services, and prescription drugs.

**Results: Components of Medical Costs**

**Total pmpm Cost**

We examine components of 2014 medical costs to determine which aspects of medical care had the greatest impact in the ACA-compliant individual market. The median 2014 total actual cost was significantly higher by $41, or 10%, than costs projected for 2014 ($443 vs $402 pmpm). Figure 1 presents the actual versus projected costs pmpm for each benefit category. Except for professional costs, all of the findings are statistically significant at the .01 level. Actual inpatient and outpatient costs pmpm were higher by $16 pmpm, or 19%, and $22 pmpm, or 24%, respectively, than projected costs. Actual prescription drug costs were higher by $11 pmpm, or 19%, than projected costs. Actual professional costs exceed projected costs by only $6 pmpm, or 5%, and were not significantly different.

**Cost per Service**

Our next analysis assesses the cost per service and utilization per service that drive cost pmpm across the benefit categories. As previously mentioned, different bases of cost and utilization between actual versus projected data resulted in smaller sample sizes in some benefit categories. Figure 2
presents the cost per inpatient service and shows significantly higher cost per inpatient admission for actual experience in 2014 at $18,141 versus projected costs of $15,878, 14% higher than projected. There was no significant difference for inpatient cost per day.

Figure 3 presents cost per service for the remaining benefit categories. The actual cost per outpatient visit did not change significantly from expected cost. There were significant cost differences for professional visits and prescription drugs, with actual professional visit costs in 2014 exceeding projected costs by $41 per visit, or 23%, and actual prescription drug costs exceeding projected prescription drug costs by $3 per script, or 4%.

**Utilization of Service**

Figure 4 shows utilization of inpatient care by days and by admissions, and differences in both measures were significant. Actual inpatient days per 1000 were 302 compared with 233 projected inpatient days per 1000, or 30% greater. Actual hospital admissions were 75 per 1000 compared with projections of 71 admissions per 1000, or 6% greater.

Figure 5 shows utilization in the remaining benefit categories. There were significant differences in utilization projected and realized in outpatient visits and prescription drugs. Actual utilization of prescription drugs was 993 prescriptions per 1000, or 10% higher than projected; actual utilization of outpatient visits was 371 per 1000, or 40% higher than projected. Utilization of professional visits was not significantly higher than projected.

Finally, Figure 6 shows the percentage difference in projected and actual cost and utilization for each benefit category. For hospital costs, on an admission basis, cost and utilization may have contributed to higher costs. Actual costs per admission were 14.3% higher while the number of actual admissions was 5.6% higher than projected. Although the
cost of an inpatient day was not greater, utilization of inpatient days was 29.6% higher than projected. Higher costs per admission may stem from comorbidities and overall poor health status of the patient as well as greater intensity of hospital services (e.g., having a magnetic resonance imaging vs an x-ray) that may incur on inpatient versus outpatient basis.

In terms of the outpatient and prescription categories, higher utilization than expected by members was the primary driver behind their higher costs. A greater number of outpatient visits and prescription drugs may have been the underlying driver behind these higher costs within these 2 categories.

Conclusion

Realized total medical costs for 2014 were approximately 10% higher than projected medical costs ($443 vs $402 pmpm). Actual costs pmpm were greater than projected in 2014 for inpatient, outpatient, and prescription drug spending but not for professional care. Increased utilization of care was the primary driver of higher medical costs. Substantially, higher utilization of health care services than projected could result from a variety of factors. Subscribers in 2014 might have been sicker than insurers expected, or previously uninsured or underinsured subscribers could have had “pent-up demand,” that is, previously unmet needs that they sought care for soon after enrollment. Conversely, other factors could have contributed to higher actual costs. One factor may have been the lack of reliable historical claims data to project future claims that reflect the unique traits of the individual market risk pool. A second factor could have resulted from contracting with high-cost providers that were unable to manage and coordinate the health care costs of this unique population of first-time users within the health care system. Overall, our findings are similar to overall health spending trends in 2014.6

As noted above, some insurers underestimated medical claim costs as a good deal more than others. Moreover, reinsurance payments help offset these excess costs.4 Although reinsurance payments will be phased out by 2016, insurers will have a more accurate source of actuarial experience on which to base premium rates in future years. Due to financial losses, several national insurers, including Aetna, Humana, and UnitedHealth Group, exited the individual market.7 The potential fallout from this decision is that the remaining insurers may end up covering more members within their market, which, in turn, should improve their risk pool to include a broader range of both young and healthy and older and unhealthy members. In addition, these state health insurers that collected actual medical claims data for 2014 will now have 2015 claims data as well. Moreover, 2 consecutive years of claims data will enable them to improve their actuarial projections for 2017 medical claims data compared with insurers with just 1 year of actual claims data. This implication is further validated by a CMS study that found reduced growth in medical costs within the individual market may have resulted from increased enrollment from 2014 to 2015 as well as contributed to a more balanced risk pool.8

Going forward, future studies could assess how accurate health insurers are in consolidated markets relative to competitive markets in predicting future from actual medical claims.

Declaration of Conflicting Interests

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