Changes in Payer Mix and Physician Reimbursement After the Affordable Care Act and Medicaid Expansion

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Abstract
Although uncompensated care for hospital-based care has fallen dramatically since the implementation of the Affordable Care Act and Medicaid expansion, the changes in hospital physician reimbursement are not known. We evaluated if payer mix and physician reimbursement by encounter changed between 2013 and 2014 in an academic hospitalist practice in a Medicaid expansion state. This was a retrospective cohort study of all general medicine inpatient admissions to an academic hospitalist group in 2013 and 2014. The proportion of encounters by payer and reimbursement/inpatient encounter were compared in 2013 versus 2014. A sensitivity analysis determined the relative contribution of different factors to the change in reimbursement/encounter. Among 37,540 and 40,397 general medicine inpatient encounters in 2013 and 2014, respectively, Medicaid encounters increased (17.3% to 30.0%, \( P < .001 \)), uninsured encounters decreased (18.4% to 6.3%, \( P < .001 \)), and private payer encounters also decreased (14.1% to 13.3%, \( P = .001 \)). The median reimbursement/encounter increased 4.2% from $79.98/encounter in 2013 to $83.36/encounter in 2014 (\( P < .001 \)). In a sensitivity analysis, changes in length of stay, proportions in encounter type by payer, payer mix, and reimbursement for encounter type by payer accounted for −0.7%, 0.8%, 2.0%, and 2.3% of the reimbursement change, respectively. From 2013 to 2014, Medicaid encounters increased, and uninsured and private payer encounters decreased within our hospitalist practice. Reimbursement/encounter also increased, much of which could be attributed to a change in payer mix. Further analyses of physician reimbursement in Medicaid expansion and non-expansion states would further delineate reimbursement changes that are directly attributable to Medicaid expansion.

Keywords
reimbursement, hospitalist, Affordable Care Act, Medicaid expansion, inpatient encounters

Background
Uncompensated hospital care costs in the United States dropped by $7.4 billion from 2013 to 2014.\(^1\) A majority (ie, $5 billion) of this decrease in uncompensated care was realized by hospitals in the 28 states and Washington, D.C., which expanded Medicaid under the Affordable Care Act (ACA).\(^1\) Still, little is known about the impact of the ACA and Medicaid expansion on hospital-based provider groups. To better understand how the ACA and Medicaid expansion might affect an academic hospitalist practice located in Colorado, which expanded Medicaid in January 2014, we evaluated if payer mix and physician reimbursement by encounter changed between 2013 and 2014.

Methods
In this retrospective cohort study, we analyzed a database of all inpatient discharges from general medicine services at the University of Colorado Hospital (UCH) in 2013 and 2014. Payers were divided into Medicare, Medicaid, dual eligibles (eligible for both Medicare and Medicaid), private, uninsured, and other. We included the “other” payer group for the primary payer mix analysis, but excluded it from the reimbursement analysis due to variability in reimbursement from payers within this group (eg, worker’s compensation, Tricare). Encounters were calculated from calendar days for each admission. The first and last calendar days of an admission were considered initial and...
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discharge encounters, with intervening days as subsequent encounters. Encounter codes were based on Current Procedural Terminology (CPT) codes for inpatient physician evaluation and management encounters, which represent 3 levels of increasing complexity and reimbursement for initial encounters (CPT codes 99221, 99222, and 99223) and subsequent encounters (CPT codes 99231, 99232, and 99233), and 2 levels of complexity for discharge encounters (CPT codes 99238 and 99239). CPT codes will be referred to as “encounter type.” We calculated average reimbursement/encounter using the proportion of encounter type codes by payer multiplied by the average reimbursement per encounter type by payer. Encounter type and reimbursement data were acquired from a financial database of encounter type proportions and reimbursement for all UCH physicians. A 12.5% average collection rate for uninsured encounters was applied to both years, based on 2013 and 2014 average reimbursement rate.

Chi-square tests compared the proportion of encounters for each payer in 2013 and 2014. Kolmogorov–Smirnov tests were completed to assess the distribution of average reimbursement/encounter. Because reimbursement/encounter was non-parametric, we performed Wilcoxon rank sum tests to compare reimbursement/encounter in 2013 and 2014. Post hoc sensitivity analyses evaluated factors that may have contributed to changes in reimbursement/encounter. We estimated the relative contribution of each of the following 4 factors to changes in reimbursement/encounter: (1) length of stay (LOS), (2) proportion of encounter types by payer, (3) payer mix (ie, overall proportion of encounters attributed to each payer), and (4) reimbursement for encounter type by payer. In four separate models, each of the 4 factors was individually reverted to 2013 average values, whereas the other factors were kept at 2014 average values.

Results

Among general medicine inpatients, 6395 and 6483 discharges were completed in 2013 and 2014, representing 37,540 and 40,397 encounters, respectively. From 2013 to 2014, Medicaid encounters increased from 17.3% to 30.0% (P < .001), uninsured encounters fell from 18.4% to 6.3% (P < .001), and private payer encounters decreased from 14.1% to 13.3% (P = .001; see Figure 1). Encounters remained stable in all other payers during this time.

The median reimbursement/encounter increased 4.2% from $79.98/encounter in 2013 (interquartile range [IQR] $61.11, $112.51) to $83.36/encounter in 2014 (IQR $63.54, $117.23, P < .001). In a sensitivity analysis, changes in LOS, proportions of encounter type by payer, payer mix, and reimbursement for encounter type by payer accounted for −0.7%, 0.8%, 2.0%, and 2.3% of the reimbursement change, respectively. Of note, the 2.3% increase in reimbursement/encounter type was not unique to one specific payer, but noted across encounter types for all payers except uninsured. We suspect that unmeasured confounding may account for the 0.2% difference between results from the primary and sensitivity reimbursement analyses.

Discussion

Following Medicaid expansion, we noted a marked increase in Medicaid encounters with a simultaneous drop in uninsured encounters, and a small decrease in private payer encounters. The observed rise in Medicaid and fall in uninsured is consistent with trends noted nationally, and provides a clear local illustration of anticipated changes in insurance coverage under the ACA.2 We also completed a unique financial analysis in which we found a modest increase in physician reimbursement/
encounter from 2013 to 2014, nearly half of which was related to observed changes in payer mix. The shift from uninsured to Medicaid encounters was a primary contributor to increased payer mix–related reimbursement, which was moderated somewhat by a decrease in private encounters. This finding of decreased private encounters was unexpected, and it is unclear if this shift could be related to patient purchases of insurance plans in the Colorado State Insurance Marketplace that encouraged patients to seek care at other health care systems. The major limitation of this analysis is the single-center nature of this study, and results of the same analysis are likely to differ between hospitalist practices based on payer mix. However, the decrease we observed in uninsured encounters for our practice was similar to the decrease in uninsured rates from 19% in 2013 to 10% in 2014 for the county where UCH is located. In addition, our finding of a 2.3% increase in reimbursement per encounter type was similar to increases in payment per physician encounter in the outpatient setting comparing 2013 with 2014 for new and established patients—a 1.7% and 2.3% increase, respectively—in a recently published analysis of national data. Further evaluation of hospital and physician practices in both Medicaid expansion and non-expansion states would better delineate the impact of the ACA and Medicaid expansion on reimbursement for hospital-based care.

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Authors’ Note
Dr Jones had full access to all the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis. This sponsor had no role in the design, conduct, analysis, interpretation, or presentation of the study.

Declaration of Conflicting Interests
The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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