Compensation and Production in Family Medicine by Practice Ownership

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Abstract

The increasing focus on high performance, patient-centered, team-based care calls for a strategy to evaluate cost-effective primary care. The trend toward physician practice consolidation further challenges the primary care health care system. Productivity measures establish provider value and help inform decision making regarding resource allocation in this evolving health care system. In this national survey of family medicine practices, physician assistant (PA) productivity, as defined by mean annual patient encounters, exceeds that of both nurse practitioners (NPs) and physicians in physician-owned practices and of NPs in hospital or integrated delivery system-owned practices. Total compensation, defined as salary, bonus, incentives, and honoraria for physicians, is significantly more compared to both PAs and NPs, regardless of practice ownership or productivity. Physician assistants and NPs earn equivalent compensation, regardless of practice ownership or productivity. Not only do these data support the value and role of PAs and NPs on the primary care team but also highlight differences in patient encounters between practice settings. Rural and underserved community practices, where physician-owned practices persist, also merit further consideration. Further research is needed to inform both organizational and policy decisions for the provision of high-quality, cost-effective, and accessible primary health care.

Keywords
primary care, cost-effectiveness, access to care, efficiency, health economics, medical costs

Introduction

Productivity, as measured by annual patient encounters, is a valuable metric by which to assess the contribution—financial and otherwise—of members of the health care team as well as utilization of primary care services. Productivity measures establish provider value and legitimacy in the health care system, in addition to informing other important practice- and system-level management decisions.¹⁻³ The emerging focus on quality and performance indicators, cost-effective care, and optimizing team-based care calls for an effective strategy to holistically evaluate access and productivity in family medicine.

In the current health care system, patients struggle to access preventive and primary care services, there is a maldistribution of primary care physicians, and the average cost per patient has steadily risen over the past decade.⁴⁻⁵ For physicians, the pressures associated with outcomes-based care are overlapping with new business models other than independent practice.² In 2012, between 50% and 60% of physicians were employed by hospital systems or medical groups,⁶ and in 2014, 64% of recruitment opportunities were for hospital-employed physicians.⁷ In response to a national call to disseminate workforce models that incorporate physician assistants (PAs) and nurse practitioners (NPs),⁸ this report highlights the contributions of PAs and NPs in both physician-owned and hospital or integrated delivery system-owned family medicine practices. Given the payment differentials based on practice ownership and the need to improve access, incorporating more PAs and NPs may maximize cost-effective primary health care.

Here we evaluate (1) mean total annual patient encounters by provider type and practice ownership and (2) mean annual compensation by provider type and practice ownership using a robust, national data set. These data inform the discussion on the team-based workforce capacity required for accessible, high-quality primary care in the United States.⁹,¹⁰

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Submitted November 17, 2015. Accepted November 17, 2015.

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Study Data and Methods

To evaluate productivity and compensation, the authors used national data from the Medical Group Management Association (MGMA) Physician Compensation & Production Survey, 2014 Report Based on 2013 Data.\(^1\) The MGMA represents more than 33,000 medical practice administrators and executives in primary and specialty care. The MGMA data represent individual providers, family practitioners, PAs, or NPs, from member physician group practices. In this article, we compared mean total patient encounters and mean annual compensation by provider type, defined as full-time family medicine physicians, PAs, and NPs without obstetrics.

Analyses also included mean annual encounters and mean annual compensation within and across practice ownership, defined as physician-owned or hospital or integrated delivery system-owned. Descriptive analyses included means, percentages, and standard deviations. All comparisons were made using an unpaired t test, presented in Appendices A and B. Stata (StataCorp. 2009. Stata Statistical Software: Release 11. College Station, TX: StataCorp LP) was used to complete all analyses.

Study Results

Overall Results

For overall annual patient encounters in family medicine without obstetrics, physicians and PAs reported equivalent annual mean percentage of patient encounters (36%; Table 1). For overall annual compensation, physicians reported the highest mean salary (US$230,884), while PAs and NPs reported lower but equivalent salaries (US$99,731 and US$100,981, respectively; Table 2). Physicians comprise the majority of respondents (Tables 1 and 2).

In physician-owned practices, PAs are significantly more productive compared to physicians or NPs, based on annual patient encounters. Although physicians are compensated significantly more, particularly in physician-owned practices, compensation for PAs and NPs remains consistent across practice ownership, suggesting improved patient access within a cost-effective compensation structure (Tables 3 and 4).

Annual Patient Encounters

In 2013, there was a 34% difference in mean annual patient encounters between physician-owned and hospital or integrated delivery system-owned practices (13,040 and 9,729, respectively). In evaluating provider productivity within practice ownership, PAs reported significantly more patient encounters compared to both physicians and NPs in physician-owned practices. Physicians reported more annual patient encounters compared to NPs, but the results were not significant (Table 3 and Figure 1). Within hospital or integrated delivery system-owned practices, physicians reported

### Table 1. Total Annual Patient Encounters, by Provider Type.\(^a\)

| Provider Type            | Mean | SD  | Percentage of Mean Encounters | N  |
|--------------------------|------|-----|-------------------------------|----|
| Family medicine physician| 3933 | 1554| 36.70                         | 1734|
| Nurse practitioner       | 2886 | 1452| 26.90                         | 176 |
| Physician assistant      | 3908 | 1901| 36.40                         | 95  |

**Abbreviation:** SD, standard deviation.

\(^a\)Adapted from authors’ analyses of the Medical Group Management Association Physician Compensation & Production Survey, 2014 Report Based on 2013 Data.

### Table 2. Mean Annual Compensation, by Provider Type.\(^a\)

| Provider Type            | Mean     | SD       | Percentage of Mean Compensation | N  |
|--------------------------|----------|----------|---------------------------------|----|
| Family medicine physician| US$230,884 | US$89,423| 53.50                           | 5983|
| Nurse practitioner       | US$99,731 | US$34,991| 23.10                           | 594 |
| Physician assistant      | US$100,981| US$30,465| 23.40                           | 408 |

**Abbreviation:** SD, standard deviation.

\(^a\)Adapted from authors’ analyses of the Medical Group Management Association Physician Compensation & Production Survey, 2014 Report Based on 2013 Data.

### Table 3. Mean Annual Patient Encounters, by Practice Ownership and Provider Type, 2013.\(^a\)

| Provider Type                          | Physician-Owned | N  | SD  | Hospital or Integrated Delivery System-Owned | N  | SD  |
|----------------------------------------|------------------|----|-----|-----------------------------------------------|----|-----|
| Family medicine physician              | 4042             | 627| 1724| 4005                                          | 108| 1392|
| Nurse practitioner                     | 3824             | 39 | 2502| 2661                                          | 38 | 819 |
| Physician assistant                    | 5174             | 38 | 2374| 3063                                          | 57 | 729 |
| Total                                  | 13,040           |    |     | 9,729                                        |    |     |

**Abbreviation:** SD, standard deviation.

\(^a\)Adapted from authors’ analyses of the Medical Group Management Association Physician Compensation & Production Survey, 2014 Report Based on 2013 Data.

### Figure 1. Mean annual patient encounters, by practice ownership and provider type, 2013.

[Graph showing annual patient encounters by practice ownership and provider type, 2013.]

integrated delivery system-owned practices (13,040 and 9,729, respectively). In evaluating provider productivity within practice ownership, PAs reported significantly more patient encounters compared to both physicians and NPs in physician-owned practices. Physicians reported more annual patient encounters compared to NPs, but the results were not significant (Table 3 and Figure 1). Within hospital or integrated delivery system-owned practices, physicians reported
Table 4. Mean Annual Compensation, by Practice Ownership and Provider Type, 2013.a

| Provider Type                  | Physician-Owned | Hospital or Integrated Delivery System-Owned |
|-------------------------------|-----------------|---------------------------------------------|
| Family medicine physician     | US$247,468      | US$228,160                                  |
| Nurse practitioner            | US$102,962      | US$99,097                                   |
| Physician assistant           | US$100,642      | US$101,518                                  |

Abbreviation: SD, standard deviation.
*aAdapted from authors’ analyses of the Medical Group Management Association Physician Compensation & Production Survey, 2014 Report Based on 2013 Data.

Figure 2. Mean annual compensation, by practice ownership and provider type, 2013.

Discussion

These data do not sufficiently account for “incident to” billing methodology that allows claims to be submitted under the physician’s National Provider Identifier for work provided by PAs and NPs in physician-owned practices. With incident-to-billing practices, the number of patient encounters may be skewed toward the physician in physician-owned practices. In these data, the lack of significance between physician encounters across ownership supports suggests a further, undocumented contribution of PAs and NPs in physician-owned practices.

These results do not control for hours worked, case mix, complexity of patient visits, provider demographics, or collections by provider or practice. Further clarity is needed in determining compensation structures in hospital or integrated delivery system-owned practices across provider type, as they seem to deviate from traditional productivity models.12 Finally, here the patient encounters are not weighted, so some of the differences seen may be due to differences in complexity or severity or hours worked in clinical practice.13

The data presented do not account for management or administrative responsibilities assumed by physicians, team-based visits, time spent outside of the examination room on patient-related care, variability in state provider distribution, or level of delegated practice autonomy. These results are limited to family medicine without obstetrics and do not include primary care, family medicine with obstetrics, internal medicine, or pediatrics. The percentage of distribution of the sample overrepresents physicians in the family medicine workforce and underrepresents NPs. Finally, the MGMA Physician Compensation & Production Survey design does not permit temporal comparison between cohorts.

Although these data do not stratify by patient care mix or complexity, the results have implications for labor costs and workforce distribution in emerging models of primary care delivery. These results also suggest further research using longitudinal data on measures of productivity in clinical medicine to include resource utilization, labor costs, cost-effective care delivery, and models of high-quality, team-based practice. It will be important to consider complexity of cases, comorbidity, and management factors in further studies. Additionally, studies incorporating provider compensation and production, gender variances, time devoted to clinical care (vs administration or practice management), geographic distribution, payment mechanism, and specialty practice are needed for workforce planning.
Conclusion

This study serves as a benchmark in demonstrating the contributions of PAs and NPs to the delivery of family medicine in emerging employment settings. Although these data provide a 1-year national snapshot of patient encounters and compensation, the results certainly seem supportive of other published reports. Furthermore, these data inform the discussion surrounding new care delivery and reimbursement models.

Appendix A

Table A1. Comparing Patient Encounters Within and Across Practice Ownership, Unpaired t Test, p-values reported.a

|                         | Family Medicine Physician | Nurse Practitioner | Physician Assistant |
|-------------------------|---------------------------|-------------------|---------------------|
| **Physician-owned practice** |                           |                   |                     |
| **Physician-owned practice (comparisons within)** |                       |                   |                     |
| Nurse practitioner      |                          |                   |                     |
| Physician assistant     | 0.4577                    |                   |                     |
|                         | *P < .001*                |                   |                     |
| Hospital or integrated delivery system-owned (comparisons across) |                   |                   |                     |
| Family medicine physician | 0.8326                  | *P < .001*        | *P < .001*          |
| Nurse practitioner      | 0.5812                    | *P < .01*         | *P < .05*           |
| Physician assistant     | *P < .001*                | *P < .001*        | *P < .001*          |

| **Hospital or integrated delivery system-owned practice** |                   |                   |                     |
| **Hospital or integrated delivery system-owned (comparisons within)** |                   |                   |                     |
| Family medicine physician |                          |                   |                     |
| Nurse practitioner      | *P < .001*                |                   |                     |
| Physician assistant     | *P < .001*                |                   |                     |

aAdapted from authors’ analyses of the Medical Group Management Association Physician Compensation & Production Survey, 2014 Report Based on 2013 Data.

Appendix B

Table B1. Comparing Compensation Within and Across Practice Ownership, Unpaired t Test, p-values reported.a

|                         | Family Medicine Physician | Nurse Practitioner | Physician Assistant |
|-------------------------|---------------------------|-------------------|---------------------|
| **Physician-owned practice** |                           |                   |                     |
| **Physician-owned practice (comparisons within)** |                       |                   |                     |
| Nurse practitioner      |                          |                   |                     |
| Physician assistant     | *P < .001*                |                   |                     |
|                         | 0.4819                    |                   |                     |
| Hospital or integrated delivery system-owned (comparisons across) |                   |                   |                     |
| Family medicine physician | *P < .001*                | *P < .001*        | *P < .001*          |
| Nurse practitioner      | *P < .001*                | 0.2999            | 0.7188              |
| Physician assistant     | 0.6737                    | 0.8173            |                     |

| **Hospital or integrated delivery system-owned practice** |                   |                   |                     |
| **Hospital or integrated delivery system-owned (comparisons within)** |                   |                   |                     |
| Family medicine physician |                          |                   |                     |
| Nurse practitioner      | *P < .001*                |                   |                     |
| Physician assistant     | 0.5867                    |                   |                     |

aAdapted from authors’ analyses of the Medical Group Management Association Physician Compensation & Production Survey, 2014 Report Based on 2013 Data.

bNot applicable.
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.

Funding
The author(s) received no financial support for the research, authorship, and/or publication of this article.

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