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# gauging the financial impact of physicians on hospitals

Data on physician activity and revenue within hospitals can inform a hospital's strategy to employ or financially integrate with physicians.

## AT A GLANCE

- > A study evaluated the impact of physicians on hospital finances in four basic areas of physician care: primary care, medical specialties, surgical specialties, and other specialties.
- > The study highlighted inherent differences in the activity and revenue-generating patterns of physicians to provide insight into the financial implications of the clinical enterprise.
- > The findings offer a useful perspective on hospitalist programs, particularly regarding the point at which a hospitalist program is likely to be financially self-sustaining.
- > Such data could be used to determine the number of physicians needed to support a new or expanded clinical service.

Hospital finance leaders can benefit from understanding the extent to which activity of different types of physicians in the hospital and in hospital-owned settings generates revenue for the organization, both overall and per discharge. Data on physician activity in the hospital and revenue generated in the hospital and hospital-owned settings can support informed decisions about physician recruitment, medical staff development issues, facility and equipment investments, and potential business ventures. Such data also could be used to evaluate physician productivity and the extent to which physicians are meeting identified community need.

These perceptions prompted an analysis of physician activity and associated revenue at 20 U.S. hospitals. The analysis examined four basic areas of physician care: primary care, medical specialties, surgical specialties, and other specialties. Key observations for each area follow, with related exhibits profiling the various types of physicians in terms of inpatient activity and revenue.

## Primary Care

Data on inpatient activity and net revenue associated with primary care were separated into three categories: family practice, internal medicine, and hospital medicine (i.e., hospitalists). For both family practitioners and general internists, separate profiles were developed for physicians who attend their own inpatients and those who rely on a hospitalist service. For hospitalists, separate profiles were developed for hospital-employed and private hospitalists.

Inpatient activity for pediatricians could not be analyzed, as most hospitals include newborn discharges, patient days, and revenue with other inpatient activity and revenue generated by pediatricians. (Inpatient activity and revenue related to newborns might more appropriately be credited to obstetricians, but in any case, these data cannot be determined from most hospitals' financial reports.) Analysis of available data disclosed that mean hospital outpatient revenue for pediatricians is about \$77,000.

## Internists who use hospitalists generate less than half of the hospital outpatient revenue than those who attend their inpatients, which perhaps indicates less overall involvement with the hospital.

*Family practice.* Little difference in hospital activity and revenue was found—surprisingly, perhaps—between private and employed family physicians, so separate profiles are not presented here. Although this finding could be specific to the data for this particular set of hospitals, it also could be an indication that family physicians, regardless of their practice status, have common practice patterns. It would also be consistent with the premise that money is not so much of a motivating factor for primary care physicians.

Family physicians who usually admit patients to a hospitalist service occasionally follow some of their inpatients—about one per month, on average. This finding reflects the nature of most hospitalist services, which give physicians the option of following their own patients even when they usually use hospitalists.

Revenue per discharge is essentially the same for inpatients attended by family physicians whether they use hospitalists regularly or rarely (\$6,200 versus \$6,300, respectively), and the average length of stay (ALOS) is likewise similar (3.5 versus 3.3 days, respectively). This finding suggests that patient severity is not a determining factor in family physicians’ decision whether to admit to a hospitalist.

Family physicians who use hospitalists generate one-third less hospital outpatient revenue than do those who attend their own inpatients (on average, \$213,000 versus \$330,000, respectively), which perhaps indicates less overall involvement with the hospital.

**INPATIENT ACTIVITY AND NET REVENUE PER PHYSICIAN, ON AVERAGE, FAMILY PRACTICE (N=266)**

| Admitting Status       | Inpatient Activity |      | Net Revenue (\$ in thousands) |            |         | Inpatient Revenue |            |
|------------------------|--------------------|------|-------------------------------|------------|---------|-------------------|------------|
|                        | Discharges         | Days | Inpatient                     | Outpatient | Total   | Per Discharge     | % of Total |
| Attending (121)        | 112                | 396  | \$701                         | \$330      | \$1,031 | \$6,300           | 68%        |
| Use hospitalists (145) | 15                 | 50   | \$92                          | \$213      | \$305   | \$6,200           | 30%        |

**INPATIENT ACTIVITY AND NET REVENUE PER PHYSICIAN, ON AVERAGE, INTERNAL MEDICINE (N=219)**

| Admitting Status      | Inpatient Activity |      | Net Revenue (\$ in thousands) |            |         | Inpatient Revenue |            |
|-----------------------|--------------------|------|-------------------------------|------------|---------|-------------------|------------|
|                       | Discharges         | Days | Inpatient                     | Outpatient | Total   | Per Discharge     | % of Total |
| Attending (138)       | 159                | 740  | \$1,338                       | \$387      | \$1,725 | \$8,400           | 78%        |
| Use hospitalists (81) | 11                 | 50   | \$103                         | \$172      | \$285   | \$9,300           | 36%        |

**INPATIENT ACTIVITY AND NET REVENUE PER PHYSICIAN, ON AVERAGE, HOSPITAL MEDICINE (N=108)**

| Employment Status | Inpatient Activity |       | Net Revenue (\$ in thousands) |            |         | Inpatient Revenue |            |
|-------------------|--------------------|-------|-------------------------------|------------|---------|-------------------|------------|
|                   | Discharges         | Days  | Inpatient                     | Outpatient | Total   | Per Discharge     | % of Total |
| Employed (91)     | 360                | 1,556 | \$2,961                       | \$255      | \$3,216 | \$8,200           | 92%        |
| Private (17)      | 486                | 2,171 | \$3,936                       | \$190      | \$4,127 | \$8,100           | 95%        |

**Internal medicine.** As with family medicine, little difference in hospital activity and revenue was observed between private and employed internists, so separate profiles are not presented here. Revenue per discharge and ALOS for inpatients attended by internists, whether they regularly or only occasionally use hospitalists, differ little (\$9,000 versus \$8,400, and 4.7 versus 4.5 days, respectively). These findings suggest that patient severity is not a determining factor for internists deciding whether to admit to a hospitalist. Internists who use hospitalists generate less than half of the hospital outpatient revenue than those who attend their inpatients (on average, \$172,000 versus \$387,000, respectively)—again, perhaps an indication of less overall involvement with the hospital.

**Hospital medicine.** Private hospitalists (i.e., not employed by the hospital) discharge one-third more inpatients and generate one-third more hospital inpatient revenue, on average, than do employed hospitalists (486 versus 360 discharges, and \$3.936 million versus \$2.961 million in revenue, respectively). Higher patient volume with private hospitalists would also generate higher physician billings in the hospital. This finding suggests a link between patient volume and practice status: Some hospitals may be subsidizing their hospitalist program by employing the hospitalists, while busier hospitalists do not require subsidy—at least not via employment.

Revenue per discharge is essentially the same for inpatients cared for by hospital-employed hospitalists and those cared for by private hospitalists (\$8,200 versus \$8,100, respectively), and the difference in ALOS between the two groups is less than 0.2 days. The implication is that hospital-employed and private hospitalists are caring for the same patient population.

### Medical Specialties

Data on activity and revenue associated with medical specialists were gathered for cardiology, gastroenterology, neurology, oncology, and pulmonology. Separate profiles were developed for private and employed cardiologists and oncologists. Data were insufficient to develop separate profiles for private and employed gastroenterologists, neurologists, and pulmonologists.

Allergy/immunology, endocrinology, infectious diseases, and rheumatology are not profiled because physicians in these specialties generate little or no hospital activity or revenue. Nephrology is not profiled because data were obtained on too few physicians.

The study found that employed cardiologists have 30 percent fewer discharges, on average, than do cardiologists in private practice (73 versus 104, respectively), and they generate 30 percent less inpatient revenue, on average,

| INPATIENT ACTIVITY AND NET REVENUE PER PHYSICIAN, ON AVERAGE, MEDICAL SPECIALTIES |                    |      |                               |            |         |                   |            |
|---|--------------------|------|-------------------------------|------------|---------|-------------------|------------|
| Specialty   | Inpatient Activity |      | Net Revenue (\$ in thousands) |            |         | Inpatient Revenue |            |
|   | Discharges         | Days | Inpatient                     | Outpatient | Total   | Per Discharge     | % of Total |
| Cardiology, private (60)  | 104                | 342  | \$1,359                       | \$1,010    | \$2,368 | \$13,100          | 57%        |
| Cardiology, employed (38)   | 73                 | 186  | \$920                         | \$1,033    | \$1,942 | \$12,700          | 47%        |
| Gastroenterology (52)   | 15                 | 55   | \$103                         | \$728      | \$831   | \$6,900           | 12%        |
| Neurology (30)  | 11                 | 78   | \$160                         | \$387      | \$547   | \$14,100          | 29%        |
| Oncology, private (22)  | 59                 | 359  | \$610                         | \$770      | \$1,381 | \$10,400          | 44%        |
| Oncology, employed (17)   | 57                 | 395  | \$751                         | \$2,629    | \$3,380 | \$13,100          | 22%        |
| Pulmonology (39)  | 65                 | 409  | \$981                         | \$233      | \$1,214 | \$15,100          | 81%        |

## Employed cardiologists have 30 percent fewer discharges, on average, than do cardiologists in private practice, and they generate 30 percent less inpatient revenue, on average, than their private-practice counterparts.

than their private-practice counterparts (\$0.920 million versus \$1.359 million, respectively). This finding might be attributable to employed cardiologists being in the early years of practice and having lower productivity, although the pattern might persist even in mature practices. To the extent that lower inpatient activity and, thus, lower inpatient-related physician billing result in lower (and perhaps declining) total physician income, these cardiologists may have sought hospital employment.

Outpatient revenue for employed oncologists is much higher than for those in private practice because chemotherapy drugs are included in hospital revenue for the employed oncologists.

### Surgical Specialties

The study gathered data on physician activity and revenue for the following surgical specialties: cardiovascular surgery, otolaryngology (ENT), general surgery, neurosurgery, ophthalmology, orthopedic surgery, and urology. Plastic surgery was not profiled because data were obtained on too few physicians.

As one might expect, certain surgical specialties—cardiovascular surgery, general surgery, orthopedic, and neurosurgery—were found to generate high inpatient revenue in total and per discharge. Other surgical specialties profiled, however, generate little, if any, inpatient revenue. Ophthalmology is entirely an outpatient specialty in community hospitals, while ENT and urology are largely so.

It should be noted that outpatient revenue for all surgical specialties is understated to the extent that procedures are performed in nonhospital ambulatory facilities or perhaps in physicians' offices.

### Other Specialties

The study also gathered data on activity and revenue associated with obstetricians/gynecologists, private and employed psychiatrists, and podiatrists. Profiles were not developed for physical medicine, nurse midwifery, and oral surgery because data were obtained on too few practitioners.

**INPATIENT ACTIVITY AND NET REVENUE, PER PHYSICIAN, ON AVERAGE, SURGICAL SPECIALTIES**

| Specialty                   | Inpatient Activity |      | Net Revenue (\$ in thousands) |            |         | Inpatient Revenue |            |
|-----------------------------|--------------------|------|-------------------------------|------------|---------|-------------------|------------|
|                             | Discharges         | Days | Inpatient                     | Outpatient | Total   | Per Discharge     | % of Total |
| Cardiovascular Surgery (23) | 128                | 666  | \$3,450                       | \$351      | \$3,801 | \$26,900          | 91%        |
| Otolaryngology (34)         | 16                 | 51   | \$163                         | \$608      | \$771   | \$10,000          | 21%        |
| General Surgery (96)        | 112                | 496  | \$1,522                       | \$852      | \$2,374 | \$13,600          | 64%        |
| Neurosurgery (23)           | 144                | 466  | \$3,156                       | \$705      | \$3,861 | \$21,900          | 82%        |
| Ophthalmology (27)          | -                  | -    | -                             | \$279      | \$279   | -                 | -          |
| Orthopedic Surgery (92)     | 95                 | 325  | \$1,526                       | \$638      | \$2,164 | \$16,100          | 71%        |
| Urology (38)                | 39                 | 93   | \$368                         | \$755      | \$1,123 | \$9,500           | 33%        |

**INPATIENT ACTIVITY AND NET REVENUE, PER PHYSICIAN, ON AVERAGE, OTHER SPECIALTIES**

| Specialty                 | Inpatient Activity |      | Net Revenue (\$ in thousands) |            |         | Inpatient Revenue |            |
|---------------------------|--------------------|------|-------------------------------|------------|---------|-------------------|------------|
|                           | Discharges         | Days | Inpatient                     | Outpatient | Total   | Per Discharge     | % of Total |
| OB/Gyn (126)              | 144                | 342  | \$759                         | \$481      | \$1,240 | \$5,300           | 61%        |
| Psychiatry, private (11)  | 186                | 809  | \$1,065                       | \$4        | \$1,069 | \$5,700           | 100%       |
| Psychiatry, employed (18) | 344                | 1868 | \$1,458                       | \$173      | \$1,642 | \$4,300           | 89%        |
| Podiatry (24)             | 5                  | 15   | \$64                          | \$260      | \$324   | \$14,200          | 20%        |

Separate analyses of employed and private obstetricians/gynecologists also were performed, and little difference in hospital-based activity was noted, so separate profiles are not shown.

Employed psychiatrists are often medical directors of inpatient psychiatry units, and several hospitals had no private psychiatrists on staff, which accounts for employed psychiatrists having higher average discharges than do private psychiatrists.

**Practical Applications of Data on Physician Activity**

Although the findings of this analysis are specific to those hospitals and do not support general conclusions regarding physician revenue and activity in all U.S. hospitals, the data nonetheless provide an interesting perspective to inform decisions of hospital finance leaders regarding physician strategy. In particular, by highlighting differences in the activity and revenue-generating patterns of private practice and employed physicians in selected specialties, such data can

**About the Study**

In this study, hospital activity and revenue by specialty were profiled using data on more than 1,600 physicians, plus some nonphysician providers, such as nurse midwives and oral surgeons, representing 36 specialties. Data were obtained from 20 hospitals in 15 states. The hospitals are all not-for-profit, and none of them has a significant residency program.

Data are from the hospitals' fiscal year 2009 or 2010, and only physicians in practice for the entire year were included. All physicians evaluated in the study practice at only one hospital, so all hospital activity and revenue have been captured for physicians included in the analysis.

Data obtained for each physician include specialty, discharges, patient days, net inpatient revenue, net outpatient revenue, practice status (private or hospital-employed), whether the hospital operates a hospitalist program, and whether the individual physician admits to the hospitalist service or follows his/her own patients.

Inpatient revenue per discharge was calculated for each physician, as were total revenue and inpatient revenue as a percentage of total revenue. Mean values were calculated by specialty for all data elements. Specialties with at least 24 physicians are profiled in the exhibits included in this article. For specialties with both private and employed physicians, separate profiles are shown if there are at least 16 physicians in each category. For family practice and internal medicine, separate profiles were calculated and are displayed for physicians who attend their own inpatients as well as those who use a hospitalist service. The number of physicians in each specialty and profile component is indicated in parentheses.

Nonhospital activity and revenue, such as from a free-standing surgery center, were not captured. As a result, total outpatient revenue generated by some physicians may be understated.

help finance executives better understand the financial implications of the clinical enterprise. Finance leaders could benefit from this insight as they develop strategies to employ or financially integrate with physicians.

Such data also provide a basis for evaluating the hospital component of physician activity for employed physicians. The findings of the analysis offer a useful perspective on hospitalist programs, in terms of both the activity of hospitalists and the point at which a hospitalist program is likely to be financially self-sustaining. The findings offer quantitative insight into how outpatient revenue generated by physicians who admit and follow their own inpatients differs from that generated by physicians who rely on the hospitalist service.

There are other practical uses for data such as those presented. Hospitals could use the data to evaluate productivity benchmarks related to hospital activity for employed physicians. The data could be used to evaluate historical trends, refine the benchmarks for current activity, and develop assumptions about planned activity.

Data on physician activity also could provide insights on service line market shares. For instance, if a hospital's orthopedic market share is lower than its overall market share, the discrepancy could be the result of the number of orthopedists on staff and their commitment to the hospital. Insights from this analysis, in conjunction with data on financial activity, could be used to help prioritize physician recruitment targets.

For private physicians who practice at more than one hospital, such data can be used to estimate the proportion of a physician's practice or activity at one hospital. To obtain this quotient, a physician's activity at the hospital (admissions and/or revenue) would be the numerator and data from this study would be the denominator.

Such data can further be used to determine the number of physicians needed to support a new or

The findings of this analysis offer a useful perspective on hospitalist programs, particularly regarding the point at which a hospitalist program is likely to be financially self-sustaining.

expanded clinical service. For example, a hospital considering an expanded hospitalist service (e.g., from weekend to full coverage) could use data on hospitalists in developing its staffing model.

### Physician Activity and Revenue in the New Healthcare Environment

Healthcare delivery and payment are being transformed in several ways, including providers being paid for value rather than volume. As the transition from fee-for-service to more global payment mechanisms progresses, data on physician activity and revenue within hospitals could be used to gauge some aspects of physician capacity. Additional information will be needed, however, to redefine and measure physician "productivity" and "need" under emerging care and payment models. ●

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