

SANJAY SAINT, MD, MPH*Division of General Internal
Medicine**University of Michigan Medical
School**Ann Arbor VA Health Services**Research and Development Field
Program**Ann Arbor, Mich***DIMITRI A. CHRISTAKIS, MD, MPH****LAURA-MAE BALDWIN, MD, MPH****ROGER ROSENBLATT, MD, MPH***University of Washington School of
Medicine**Seattle, Wash**Effective Clinical Practice.**2000;3:35–39.*

Is Hospitalism New? An Analysis of Medicare Data from Washington State in 1994

CONTEXT. Managed care, increased disease severity, and more complex treatment options may be reasons for the recent enthusiasm for “hospitalists”—physicians who specialize in the care of inpatients. It is not clear, however, whether hospitalism is a new model for caring for inpatients or merely a new description for previously existing practice patterns.

PRACTICE PATTERNS EXAMINED. The proportion of physician visits occurring in the hospital before the introduction of the term *hospitalists*. Five specialties were examined: family/general practice, general internal medicine, cardiology, gastroenterology, and pulmonology.

DATA SOURCE. 1994 Medicare Part B claims data for beneficiaries 65 years of age and older who received all of their care in Washington State.

RESULTS. For the average family/general practitioner, 10% of all Medicare visits occurred in the hospital. Corresponding figures for the other specialties were 20% for general internists, 36% for cardiologists, 38% for gastroenterologists, and 45% for pulmonologists. A substantial number of physicians devoted most of their Medicare effort to inpatient care (i.e., hospital visits >50% of total visits). If this definition were used as a proxy for hospitalism, 4% of family/general practitioners, 10% of general internists, 20% of gastroenterologists, 29% of cardiologists, and 37% of pulmonologists would have been considered hospitalists in Washington State during 1994. On the other hand, 35% of family/general practitioners, 18% of general internists, 7% of both gastroenterologists and pulmonologists, and 4% of cardiologists did not bill Medicare for any inpatient visits and could reasonably be categorized as “officists.”

CONCLUSION. Physicians vary considerably in the proportion of their workload that occurs in the hospital or outpatient setting. Even before the term was coined, a considerable number of physicians were de facto “hospitalists.”

The term *hospitalist*, coined in the United States by Wachter and Goldman,¹ describes a physician who specializes in the care of inpatients. Managed care, with its emphasis on efficiency and cost saving, has been partially responsible for the development of what may become a new medical specialty.^{1–3} Increased severity of patient illness combined with increased complexity of treatment options has also necessitated that some physicians specialize in inpatient care.¹

Much controversy has surrounded the rise of hospitalism.^{4–7} Recent data are emerging about the effect of these new providers on the quality and cost of health care.^{8–11} The debate about hospitalism has pitted one specialty against another and has even caused acrimony in the various medical subspecialties about who should supply the hospitalists of the future.^{3,12} This debate rages without a good sense of the recent historical context from which hospitalism has emerged. For example, it is not clear whether hospitalism is in fact a “new” model for caring for inpatients or

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whether it is merely a new appellation for an existing phenomenon.

As a first step toward understanding the context from which the term *hospitalism* emerged, we analyzed 1994 Medicare inpatient data to meet two objectives: to describe the extent to which several major specialties provided inpatient care before hospitalism was implemented widely and to estimate the proportion of physicians in several of the major specialties who spent most of their time caring for inpatients. We were also curious to see the proportion of physicians in each specialty who were exclusively outpatient providers, or “officists.”⁶

Methods

For these analyses, 1994 Medicare Part B claims data for beneficiaries 65 years of age and older who received all of their care in Washington state were used. These data included all physician services billed on behalf of these beneficiaries in both institutional and ambulatory settings. The Medicare Part B file consists of a series of line items, each of which represents a discrete service provided to a beneficiary. We limited our analyses to physician visits, as defined by Common Procedural Terminology (CPT) Evaluation and Management codes.

Each visit includes information on the billing provider identified by Medicare’s Unique Physician Identification Number. An algorithm using specialty data from the American Medical Association Masterfile, the American Board of Medical Specialties, and the Health Care Financing Administration was used to designate physician specialty. We limited the analyses to physicians in five of the major specialties likely to provide care to hospitalized medical patients: family/general practice, general internal medicine, cardiology, gastroenterology, and pulmonology.

Analysis

We defined five visit types according to the place of service listed on the Medicare claim. Outpatient visits were those in the office, home, outpatient hospital, public health clinic, or rural health clinic settings. Primary inpatient visits were nonconsultative visits (CPT codes 99221 through 99238) in the inpatient hospital setting. Consultative inpatient visits were those with other CPT codes in the inpatient hospital setting. Emergency department visits were those in a hospital emergency department. Nursing facility visits were those in a skilled nursing facility, nursing facility, or custodial care facility.

We initially calculated the mean number of physician visits by specialty. We determined the number of physicians who could potentially be considered hospitalists by examining the proportion of their visits that involved inpatient care (combining both primary and consultative inpatient visits). We then developed an operational definition of a hospitalist: a physician whose inpatient visits make up more than 50% of all his or her Medicare visits. In other words, the preponderance of the physician’s clinical time is spent caring for inpatients.

Our operational definition should be considered in the context of the formal definition of a hospitalist: a physician who spends at least 25% of his or her time caring for hospitalized patients of primary care physicians with the intent to relinquish care to the primary care physician after hospitalization.^{12, 13} Although it does not capture the notion of relinquishing care to the primary provider, our definition, which relies solely on time spent caring for inpatients, is a reasonable proxy to identify physicians whose major work is inpatient care.

Finally, we considered those physicians at the extremes. Physicians who spent more than 90% of their

TABLE 1
Mean Number of Medicare Visits in 1994 by Type of Visit and Physician Specialty*

TYPE OF VISIT	FAMILY/GENERAL PRACTICE (n = 2061)	GENERAL INTERNAL MEDICINE (n = 912)	CARDIOLOGY (n = 240)	GASTROENTEROLOGY (n = 149)	PULMONOLOGY (n = 103)
Primary inpatient	46 (10%)	159 (18%)	279 (30%)	132 (27%)	383 (38%)
Consultative inpatient	2 (0%)	17 (2%)	57 (6%)	56 (11%)	74 (7%)
Outpatient	349 (78%)	630 (72%)	594 (63%)	302 (61%)	536 (53%)
Emergency department	7 (2%)	8 (1%)	4 (0%)	1 (0%)	5 (0%)
Nursing facility	41 (9%)	54 (6%)	2 (0%)	5 (0%)	18 (2%)
Total number of visits	445	868	936	496	1016

*Because of rounding, the sum of the percentages for each specialty may not equal 100%. Numbers in parentheses represent the number of providers; percentages represent the proportion of total visits.

clinical time on inpatient visits were considered to be *pure hospitalists*. At the other end of the spectrum, physicians who had no hospital visits were considered *officists*.⁶

Results

Table 1 shows that the proportion of time that physicians spent providing inpatient care, as estimated by Medicare billing data, differed substantially by specialty. Ten percent of all visits by the average family/general practitioner were for inpatient care (both primary and consultative), whereas 20% of visits by the average general internist were for inpatient care. Hospital visits accounted for a larger percentage of a medical subspecialist's time: 36% for cardiologists, 38% for gastroenterologists, and 45% for pulmonologists. As expected, **Table 1** also shows that generalist specialties (family/general practice and general internal medicine) billed for a negligible amount of consultative inpatient care.

Hospitalists

Figure 1 shows how physicians distribute their time according to specialty. Again, the distribution for medical subspecialists was skewed toward high levels of hospital activity. However, the predominant care by most fami-

ly/general practitioners and general internists was provided out of the hospital. By using our operational definition of a hospitalist (a physician who sees >50% of his or her patients in the hospital), 37% of pulmonologists, 29% of cardiologists, 20% of gastroenterologists, 10% of general internists, and 4% of family/general practitioners would have been considered hospitalists in Washington state in 1994.

Figure 2 considers physicians who were "pure" hospitalists (>90% of visits occurred in the hospital). Although most family/general practitioners in Washington State worked predominantly in outpatient medicine, 51 of the 94 physicians (54%) who billed more than 90% of all their visits as inpatient visits were family/general practitioners.

Officists

A substantial proportion of physicians did not bill Medicare for any inpatient visits (either primary or consultative inpatient). Thirty-five percent of family/general practitioners did not bill for any inpatient visits, whereas 18% of general internists, 7% of both gastroenterologists and pulmonologists, and 4% of cardiologists did not bill for any inpatient visits. These physicians might be considered "officists."⁶

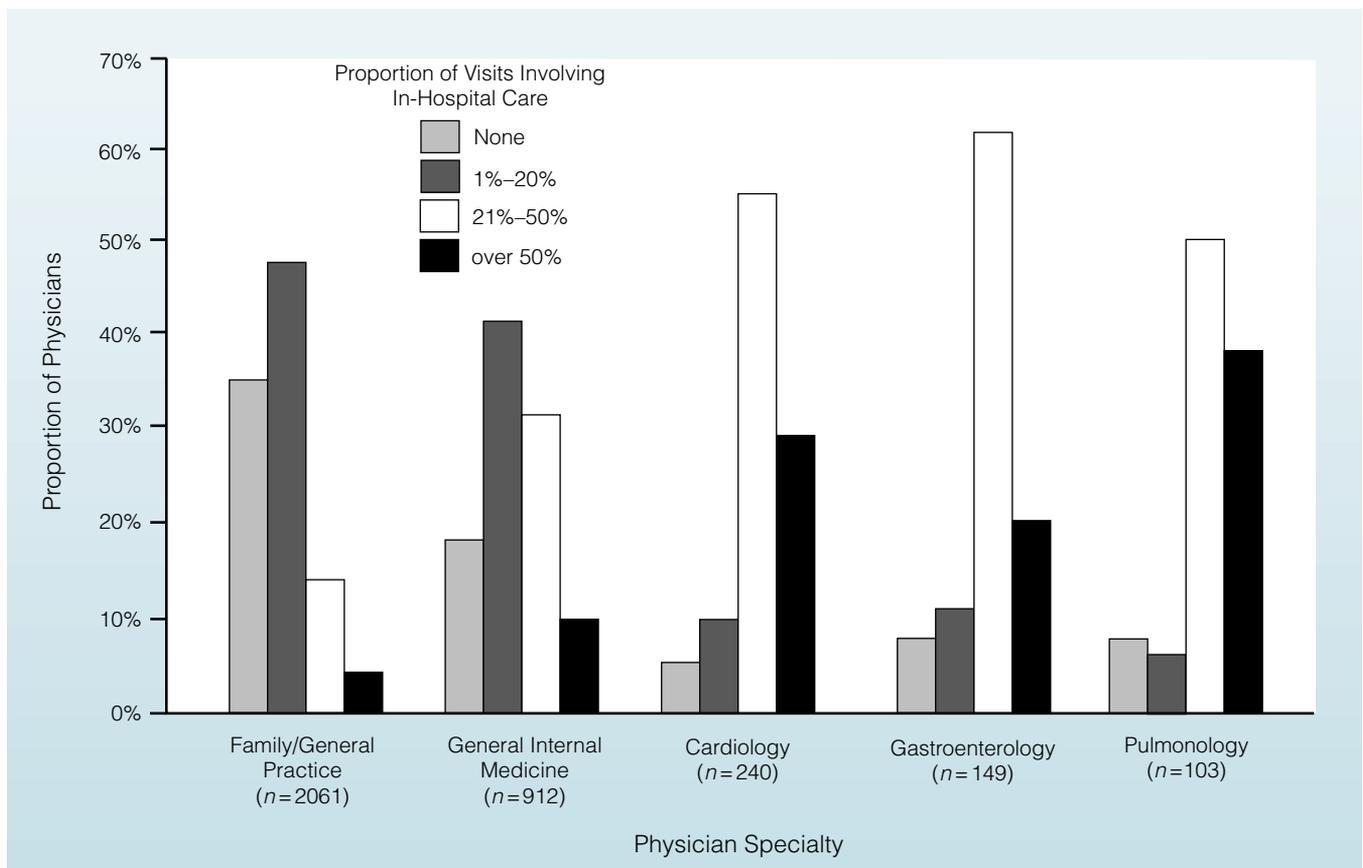


FIGURE 1. Hospital workload for physicians in five specialties.

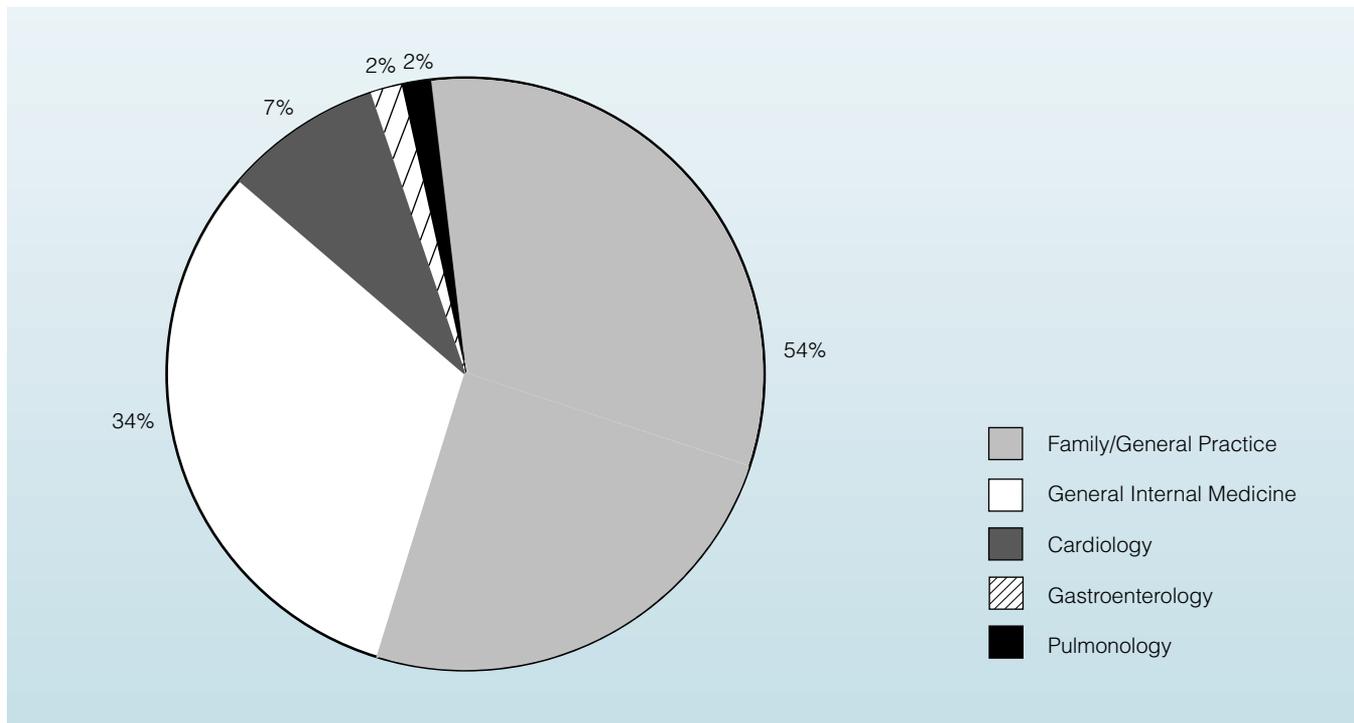


FIGURE 2. Distribution of “pure” hospitalists (physicians for whom $\geq 90\%$ of all Medicare visits are for inpatients) in Washington State, 1994. Because of rounding, the total does not equal 100%.

Discussion

In our analysis of Medicare data from Washington State in 1994, we found that medical subspecialists provide much more inpatient care than generalist physicians. In addition, a substantial proportion of subspecialists in our study billed more than 50% of their visits in the inpatient setting, whereas a relatively small proportion of generalists spent most of their time caring for inpatients. A very small, but significant, proportion of physicians from each specialty spent most of their time caring for inpatients. Thus, it is clear that even before the term was coined, many physicians were de facto hospitalists.

It also appears that there were many officists before the emergence of hospitalism. These physicians, who practice exclusively in the outpatient setting, provide the mirror image of hospitalism. The rise of a hospitalist group in a health care system will perforce create officists, as the increased proportion of inpatient work is diverted to a subset of physicians in a plan or group. Thus, a side effect of the development of primarily inpatient physicians will be the development of primarily outpatient physicians. Perhaps part of the resistance by general internists toward hospitalism reflects a future concern that physicians will one day be forced to define themselves as one or the other. It will be interesting to follow these trends to see if hospitalism produces even more “officism.”

Our evaluation should be interpreted with caution. First, our analysis evaluated only patients in the Medicare population, which has more hospital days than younger populations. Thus, we may have overestimated time spent in the hospital by the physicians who care for these patients. On the other hand, we did not use Medicare data for procedures that did not involve visits, many of which took place in the hospital setting. If a disproportionate number of these procedures were hospital based, this may have led to an underestimation of hospital work. Furthermore, our definition of a hospitalist is based solely on the proportion of time spent caring for inpatients and does not capture the intent to relinquish care to the primary provider. Our inpatient time criterion, however, is higher than that of the tradition definition (50% vs. 25%).¹³

Despite these limitations, our analysis provides empirical data that help to define the emerging field of hospitalism. It will be interesting to compare these findings with more recent data that will be influenced by the effects of hospitalism. Indeed, our data provide a benchmark for future studies that will assess the amount of inpatient and outpatient care provided by physicians from various specialties. In addition, our findings raise several important questions that we hope to address in future analyses: Who are the hospitalists among these specialty groups? Do they tend to practice in particular types of set-

tings? Is their case mix different from other physicians? Furthermore, it would be interesting to evaluate the level of discontinuity between inpatient and outpatient care in 1994 and to compare it with the current situation. Comparing administrative data with a survey of how physicians describe themselves could provide useful insight into this group of providers. Finally, although our definition of a hospitalist differs from the more commonly used definition, neither one has been validated.

Take-Home Points

- It is unclear to what extent the term *hospitalist* represents a new type of physician versus a new description for existing practice patterns.
- We identified physicians who had at least half of their Medicare visits with hospitalized patients.
- By using this working definition, our analysis of Medicare data showed that 4% of family/general practitioners, 10% of general internists, 20% of gastroenterologists, 29% of cardiologists, and 37% of pulmonologists would have been considered hospitalists in Washington state during 1994.
- However, 35% of family/general practitioners, 18% of general internists, 7% of both gastroenterologists and pulmonologists, and 4% of cardiologists did not have any inpatient visits and could be categorized as “officists.”
- The proportion of physician workload that occurs in the hospital varies considerably—even before the term was coined, a considerable number of physicians were de facto “hospitalists.”

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Correspondence

Dimitri A. Christakis, MD, MPH, Child Health Institute, 146 North Canal Street, Suite 300, Seattle, WA 98103-8652; e-mail: dachris@u.washington.edu.