



CALIFORNIA
HEALTHCARE
FOUNDATION



The Rise of the Hospitalist in California

July 2007

The Rise of the Hospitalist in California

Prepared for

CALIFORNIA HEALTHCARE FOUNDATION

by

University of California, San Francisco School of Medicine
Division of Hospital Medicine, Department of Medicine

Eduard E. Vasilevskis, M.D.

R. Justin Knebel, B.S.

Robert M. Wachter, M.D.

Andrew D. Auerbach, M.D., M.P.H.

About the Authors

Eduard Vasiilevskis, M.D. is Health Services Research Fellow in the Division of Hospital Medicine; Justin Knebel, B.S. is project director in the Division of Hospital Medicine; Robert M. Wachter, M.D. is professor of Medicine, chief of the Medical Service, and chief of the Division of Hospital Medicine; and Andrew D. Auerbach, M.D., M.P.H. is associate professor of Medicine in Residence in the Division of Hospital Medicine at the University of California San Francisco.

About the Foundation

The **California HealthCare Foundation**, based in Oakland, is an independent philanthropy committed to improving California's health care delivery and financing systems. Formed in 1996, our goal is to ensure that all Californians have access to affordable, quality health care. For more information about CHCF, visit us online at www.chcf.org.

Contents

2 I. Introduction

3 II. Background

5 III. Key Findings

Advisory Group

Advisory Group Findings

Survey Methods

Executive Survey Results

Hospitalist Leader Survey Results

14 IV. Conclusion

16 Endnotes

I. Introduction

OVER THE LAST DECADE THERE HAS BEEN A DRAMATIC shift away from primary care-directed hospital care toward a model in which hospital-based physicians—*hospitalists*—provide care to inpatients¹⁻³ and return responsibility for patient care back to primary care physicians after discharge. Early on, researchers and health care leaders predicted rapid growth of hospitalists to meet the efficiency demands of the expanding managed care environment.² Though managed care in California (and elsewhere) has become less dominant over subsequent years, hospitalist growth has continued to surge ahead.

In fact, the hospitalist field has now become the fastest growing specialty in the history of American medicine, skyrocketing from a few hundred physicians nationally in the mid 1990s to more than 20,000 today. Furthermore, hospitalists are expanding their clinical roles beyond acute, general medical inpatient care into surgical, intensive care, and emergency areas. Hospitalists' growth in both numbers and functions will have wide-ranging implications for hospitals, physicians, and patients.

In light of these issues, the California HealthCare Foundation funded researchers at UCSF to perform a study with four goals: (1) describe the growth and prevalence of hospitalists across California hospitals; (2) describe hospital leaders' beliefs regarding the factors driving growth of hospitalists in California; (3) describe current and future roles of hospitalists; and (4) describe organizational characteristics of hospitalist groups in California.

II. Background

THE HOSPITALIST MODEL WAS INTRODUCED IN THE MID-1990s to help increase hospital efficiency by reducing length of stay and care-related costs² especially in the capitation or DRG (diagnosis-related group) environment.^{4–6} The field has evolved substantially since 2000, and while efficiency remains an important concern, it is no longer the sole rationale for using the services of hospitalists.^{7,8}

Hospitalists offer a number of potential benefits for inpatients. Most important, they are more available to patients when acute problems arise because they are located at the hospital, not splitting their time among a number of locations. Because their specialty is complex medical care, hospitalists accumulate a great deal of experience and expertise in this type of care.⁹ Primary care physicians, by the same token, can focus exclusively on their outpatient practice when there are hospitalists taking responsibility for their hospitalized patients.¹⁰ Primary care practices are adjusting to new discontinuities of care, decreasing interaction with sub-specialists, and playing a diminishing role in the hospital's operations, and they have an increasing need to communicate effectively with hospitalists.

In addition to caring for medical inpatients, hospitalists often perform consultations on other services, such as palliative (or hospice) and critical care.^{11,12} Recently, surgeons and hospitalists have begun sharing the care of surgical patients—in a move away from the traditional model in which hospitalists are consulted only if a problem arises.^{8,13} In addition, hospitalists often lead specialized acute care teams called Rapid Response Teams (RRTs); in this new model, nurses, physicians, or patients can call the RRT to help if a patient becomes acutely ill. Finally, hospitalists are increasingly involved in leading quality and safety programs.^{14,15}

In 1999 the number of hospitalists was estimated at 3,500¹⁶ and was forecasted to grow to approximately 20,000 physicians by 2007—equivalent to the number of cardiologists in the United States. However, data from the 2005 American Hospital Association's annual survey of hospitals indicates that the field had already reached this milestone by 2005.¹⁷ The reasons for larger-than-expected growth are several and include surgical

co-management, limitations on resident work hours imposed by the Accreditation Council for Graduate Medical Education in 2003, the retreat of many specialists and generalists from providing emergency department coverage, increased demands to cover intensive care units (in the setting of a national shortage of critical care physicians), and increasing demand for hospitalists from primary care physicians.^{10,18–21}

Hospital medicine is a home-grown California phenomenon. In fact, the term “hospitalist” was coined by UCSF physicians, and early media reports about hospitalists focused on Kaiser Permanente in California and the Scripps Clinic in San Diego.² Little is known about the specialty’s rate of growth in the state, or what specific factors are driving it. It is important to uncover this information because the implications for California’s hospitals and physicians will be significant. Since most hospitalists are general internists (or pediatricians), the growth of the field affects other primary care generalists.

III. Key Findings

THE RESEARCH TEAM UNDERTOOK FOUR ACTIVITIES:

(1) convened an advisory group to gather experts' opinions on the key issues driving growth of hospitalist services in California; (2) conducted a survey of California hospital executives; (3) conducted a parallel survey of California hospitalist group leaders; and (4) held an interim meeting of the advisory group to gain initial insights into survey results.

Advisory Group

The nine member advisory group was selected from contacts known to the UCSF research team and the California HealthCare Foundation. It included two chief executive officers, three chief medical officers, an associate medical director, the director of a community health organization, a vice president of quality and emergency services, and an inpatient medical service director. All volunteered to provide project oversight.

At the project outset, a face-to-face meeting was convened, during which the advisory group members provided background on the evolution of hospital medicine in their organizations and fields, the current challenges they perceived, as well as implications for the future. In a later conference call meeting, the advisory group helped interpret the preliminary survey findings and provided assistance in increasing response rates through personal contacts and endorsement of the study. Following are summaries of the advisory group findings.

Advisory Group Findings

The advisory group confirmed that hospitalists were originally engaged by institutions, not only to bring more efficiency into their care delivery, but specifically to provide care for patients who had no insurance or primary care physician, or who were admitted from a nursing home. Several members noted that, although California was an early adopter of the hospitalist model, it had been slower to advance and innovate over the past decade than other areas in the nation.

Trends in Hospitalist Roles

Increasingly, hospitalists in the state are relied on to provide clinical and non-clinical services. These additional roles are facilitated by

hospitalists' availability because their goals and those of the hospitals are increasingly aligned, especially since hospitals provide financial support for most hospitalist programs. Areas that the advisory group described as having the highest potential for growth include:

- **Surgical co-management.** Surgeons are interested in handing pre-operative and post-operative care to hospitalists, especially for complex cases. Though the trend was felt to be likely to improve quality, advisory group members expressed concern that surgeons may become too removed from daily patient care. In addition, there was concern that increasing loads of surgical co-management—viewed by some as less rewarding than general medical care—might harm hospitalists' morale and job satisfaction.
- **Institutional quality initiatives.** Hospitalists are in a key position to help develop hospital guidelines and help with implementation. For example, the advisory group felt hospitalists would be the natural group to lead voluntary initiatives (such as the Institute for Healthcare Improvement's 100,000 Lives Campaign). The presence of dedicated inpatient physicians and potential alignment with hospital incentives were seen as key drivers of success for these initiatives.
- **Quality reporting initiatives.** Hospitalists would help improve performance on high-priority initiatives, such as metrics linked to public reporting and pay for performance initiatives (e.g., CMS or Joint Commission core measures). Hospitalists' quality advantage would stem from their expertise, availability, and the alignment of incentives with hospitals.
- **Efficiency initiatives.** The advisory group viewed hospitalists as an important solution to hospital efficiency issues. In addition to length of stay and care-related cost savings for medical patients, hospitalists are assisting with systemwide efficiency and throughput improvements. Many provide initial hospital care to emergency room patients (or observation units) in order to speed

the admission process and to avert unnecessary admissions. These efforts may reduce emergency room crowding.

- **Supervision of allied health care providers.** Nurse practitioners and physician assistants currently play a minimal role in California hospitalist groups, although there was interest among hospitalist leaders in expanding their role to help with growing clinical responsibilities of hospitalists.

Critical Issues Facing Hospitalist Groups

- **Funding of hospitalist programs.** Although the benefits of investing in hospitalists are generally unquestioned, funding remains a challenge for hospital administrators. Stagnant Medicare reimbursement, continued growth of uncovered patients, a perceived shortage of hospitalists, and high competition for hospitalists' services are producing high demand for hospitalists at increasing costs, while the ability to support these costs is decreasing.
- **Turnover.** Demand for hospitalists is high, and turnover is increasing, making it more difficult to hire and retain well-trained hospitalists. The advisory group attributed high turnover to at least three factors:
 - Some hospitalists maintain high encounter rates (20-plus patients per day). This large workload may be financially attractive to hospitals because these systems require little (or in many cases no) hospital funding to support the hospitalist system at a given site. However, heavy workloads probably contribute to high burnout and turnover rates (in addition to potentially compromising the efficiency advantages of hospitalists).
 - Increasing diversity of clinical and non-clinical duties between hospitals creates new opportunities as well as potential hardships. The latter may negatively impact hospitalist satisfaction.

- Hospitalists are relatively mobile, since they do not have a primary care practice to “leave,” and thus can more easily change hospitals based on better offers or job dissatisfaction.
- **Training level variation.** There is significant variation in hospitalists’ training level, and in the way hospitalist groups are managed. Advisory group members spoke of the need to “better define hospitalist roles and set clear expectations when contracts are negotiated” so that hospitals’ clinical needs are matched with hospitalists’ training and expertise. No consensus was reached on the core elements required of a competent hospitalist, but all agreed that “systems competencies,” or skills geared toward quality improvement, safety, and information technology, were crucial additions to clinical skills.
- **Transitioning patients between hospitalists and primary care physicians.** Persistent care gaps in the post-discharge period can lead to emergency department and inpatient readmissions. Such problems can also harm relationships with referring primary care and sub-specialist physicians.

Survey Methods

Two surveys were created: an executive survey for persons in positions of hospital leadership and a second survey for hospitalist group leaders. Content of both surveys was based on input from an independent literature review, the advisory group, as well as the research team’s experiences using the survey in a separate study of hospitalists in Veterans Administration hospitals. Both asked questions about hospital (or hospitalist group) clinical activities, organizational characteristics, and overall perceptions of current and future trends in hospital medicine generally, as well as their hospitalist service specifically.

Between October 2006 and May 2007 surveys were distributed by email, fax, or paper mail to all adult, non-federal, short-term general (non-specialty) hospitals in California. The executive survey was

distributed to any identified chief executive officer (CEO), vice president (VP), vice president of medical affairs (VPMA), or chief medical officer (CMO) among 331 hospitals. The hospitalist leader survey was distributed to hospitalist group leaders identified in the executive survey, by calling hospitals directly, through Internet listings, or rosters maintained by the Society of Hospital Medicine. Executives or identified hospitalist group leaders who did not respond after six mailings and phone calls were considered non-respondents.

The researchers received 198 responses to the executive survey. After excluding 16 duplicates (from the same hospital), seven responses from hospitalists, four from ineligible hospitals, and one due to incomplete data, they had a total of 172 valid executive responses (representing 52 percent of all California hospitals). The hospitalist leader survey brought 81 responses, of which three were duplicates, three were from pediatric hospitalists, one was from an ineligible hospital, and two had incomplete data. The final total was 72 responses, a response rate of 34 percent among hospitals thought to have hospitalists based upon external data, such as the American Hospital Association (AHA) annual survey.

Executive Survey Results

The goal of the executive survey was to gain an indepth understanding of the hospitalist movement through the lens of the hospital executive, with particular focus on determinants of hospitalists’ past and future growth, as well as hospitalists’ impact on cost, length of stay, quality, safety, patient satisfaction, and overall return on investment.

Executive survey responders. Respondents and non-respondents’ hospitals were identical in terms of bed size, daily census, Medi-Cal discharges, and ICU beds—meaning that this was a representative sample of California hospitals.

Of the 172 respondents, 9 percent were from large hospitals (more than 400 beds) and 15 percent from

hospitals with fewer than 100 beds. Critical access hospitals accounted for 8 percent, and teaching hospitals accounted for 23 percent.

Diversity across hospitals. A total of 101 executives (59 percent) reported having at least one hospitalist group at their site (see Table 1). However, a significant proportion of executives who did not identify a group may still have hospitalists working within their hospital. This is because some hospital executives may be unaware of the presence of hospitalist groups at their sites, especially if these groups are contracted for (or housed within) multi-specialty groups or independent practice associations (IPAs). Indeed, seven executives (20 percent) at hospitals without a hospitalist group reported that hospitalists worked within the hospital through relationships with independent practice organizations or other mechanisms. If a similar proportion was applied to other sites without hospitalists, the prevalence of hospitalists in California hospitals may be as high as 67 percent.

Executive responses suggest that large urban hospitals (73 percent), major teaching hospitals (100 percent), and hospitals participating in a voluntary quality reporting initiative (74 percent) were more likely to have hospitalist services than rural (32 percent), or non-teaching (55 percent) hospitals.

The research team then used respondents' reports and AHA data to estimate penetration of hospitalists within each hospital, using two complementary methods. The first approach used executive survey responses about the percentage of medical patients cared for by hospitalists in each site as a qualitative assessment of the use of hospitalists at their site. Among respondents, the median proportion of medical patients cared for by hospitalists was 50 percent. However, for-profit hospitals and large urban hospitals had far lower estimates of the percentage of patients cared for by hospitalists (34 percent and 38 percent respectively). Since some of the early adopters of hospitalists in California

were the for-profit HMOs and larger hospital organizations, this is a surprising finding.

To estimate a workload-based measure of within-site penetration of hospitalists, the number of hospitalists at each site (reported by executives) was divided by the average daily census (in 100s) of general medical patients (obtained from AHA data) at each site. Using this method, it was observed that the number of hospitalists per average daily census of 100 was actually higher at smaller hospitals (see Table 1). Therefore, although smaller rural hospitals appear less likely to use hospitalist services, when they do, there is higher potential for impact.

Rationales for using hospitalists. When asked to identify issues that influenced the implementation of a hospitalist model, the most common response was the need to provide care for patients with “no doctor” or for “uncovered” patients. Eighty percent of hospitals that initiated a program after 2001, and 70 percent of hospitals that implemented one prior to 2001, felt this was the most important factor in their decision-making. Efficiency and cost improvements were highly influential according to 64 percent of late adopters and 53 percent of early adopters. Demand for hospitalist services from primary care doctors was cited by 40 percent as a reason for implementation.

A growing role. Hospital leaders confirmed that in addition to caring for medical patients, 61 percent of their hospitalist groups provided surgical co-management. Most (71 percent) hospitalists were involved in quality improvement activities and 33 percent were involved in major hospital initiatives, such as the introduction of computerized physician order entry. Hospitalists are also highly involved in tasks tied to hospital efficiency and systemwide care improvements, such as screening ED patients to evaluate admission, hospital-to-hospital transfers, code teams, and rapid-response teams (see Figure 1).

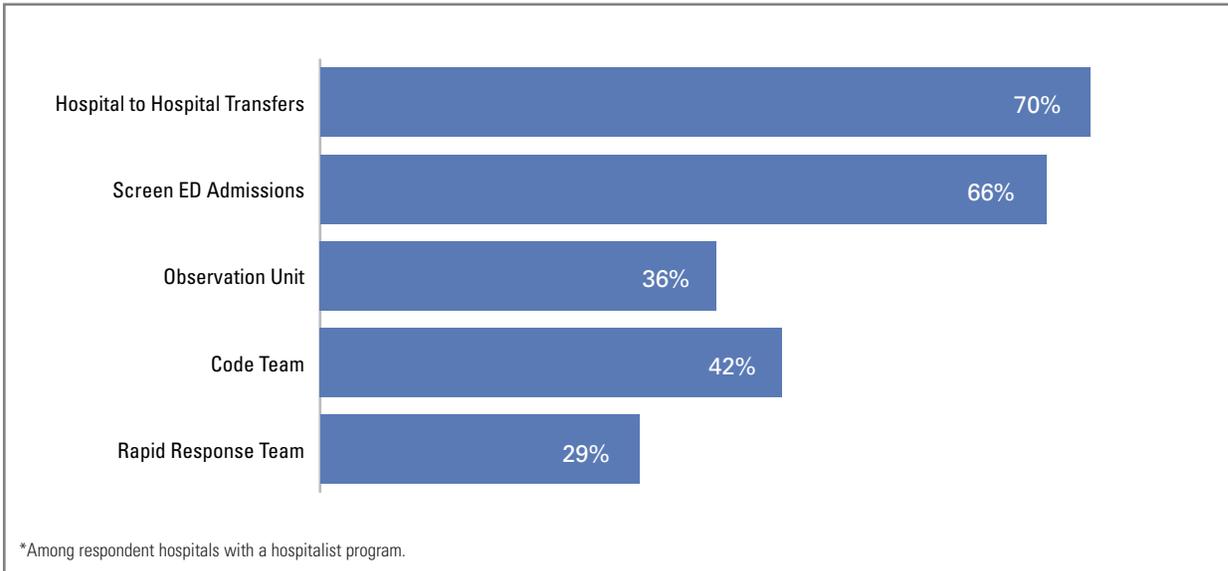
Table 1. Prevalence and Use of Hospitalists in California Hospitals

HOSPITAL CHARACTERISTIC	PREVALENCE HOSPITALS WITH AT LEAST ONE HOSPITALIST GROUP		WITHIN HOSPITAL PENETRATION OF HOSPITALIST SERVICES...	
	NUMBER (N=101)	PERCENTAGE	MEDIAN PERCENTAGE OF MEDICAL PATIENTS ADMITTED BY HOSPITALISTS	MEDIAN NUMBER OF HOSPITALISTS PER 100 AVERAGE DAILY CENSUS
Bed Size				
6–24	5	56%	50%	40.0
25–49	2	12%	65%	34.1
50–99	10	37%	55%	9.7
100–199	22	52%	40%	5.0
200–299	31	84%	49%	4.1
300–399	15	71%	35%	3.1
400–499	8	100%	25%	2.9
500+	8	100%	50%	2.7
Region				
Rural	6	32%	50%	28.9
Urban	44	71%	45%	4.6
Large Urban	35	73%	38%	3.8
Hospital Control				
Not-for-profit	61	59%	50%	5.8
For-profit	12	50%	34%	4.8
Hospital district or authority	19	76%	45%	3.9
City/county/state	9	56%	50%	2.7
Public Status/Critical Access				
Public	11	69%	50%	3.3
Critical access	5	33%	65%	40.0
Non-public	90	58%	47%	4.8
Teaching Status				
Non-teaching	72	55%	50%	6.4
Other teaching	17	65%	38%	3.7
Major teaching	12	100%	50%	3.1
Member of California Assessment and Reporting Taskforce				
Yes	78	74%	45%	4.5
No	23	35%	50%	5.0

Future plans for hospitalists. Two-thirds (67 percent) of hospitals with existing programs expect to expand; none planned to eliminate or reduce the size of their program. Supporting the findings of the advisory group, 69 percent of hospitals without

hospitalist involvement in peri-operative care would like to see hospitalist expansion into these areas. In addition, 74 percent of hospital leaders would ask hospitalists to organize quality improvement activities, and 79 percent would seek hospitalists

Figure 1. Percent of Hospitals with Triage/Emergency Care Activities Provided by Hospitalists*



to lead development and implementation of systemwide projects if hospitalists were not currently involved in such activities. When hospitals without a hospitalist program were asked if they anticipated implementing a program in the future, 38 percent reported they were going to implement a hospitalist group within the next two years. This suggests that within the next few years, three out of every four hospitals in California will have hospitalists.

Overall impressions. Respondents had overwhelmingly positive impressions of the hospitalist movement (see Table 2). Eighty-five percent believed

hospitalists improved quality, 76 percent believed hospitalists improved ED efficiency, and 66 percent felt that hospitalists lowered costs. Most (72 percent) agreed or strongly agreed they were getting a good return on their investment. Interestingly, the majority (69 percent) would prefer that hospitalists have additional certifications or training.

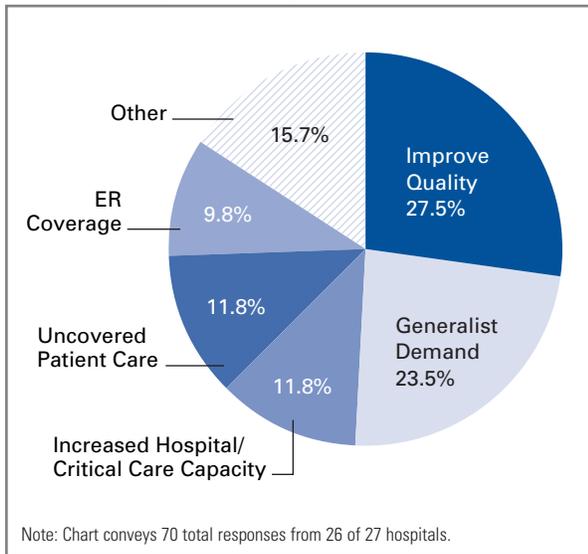
Quality improvement will be key driver. In contrast to hospitals that already implemented hospitalist programs, there appears to be a shift in the factors influencing hospitals to implement such systems today. Of those planning to implement a

Table 2. Leader Opinions on Hospitalists' Affect on Quality, Training, Turnover, and Investment Return

HOSPITAL LEADER OPINION	STRONGLY DISAGREE	DISAGREE	NEITHER AGREE NOR DISAGREE	AGREE	STRONGLY AGREE
Hospitalists lead to improvements in the quality of patient care in the hospital	0%	0%	15%	50%	35%
Hospitalists should have additional training and/or certification	1%	12%	18%	55%	14%
Turnover of hospitalist groups/physicians is too high	4%	36%	30%	18%	11%
Hospitalists lead to improvements of throughput in the emergency department	0%	7%	17%	49%	27%
Hospitalists lead to reductions in hospital costs	1%	8%	25%	48%	18%
Hospitalist program(s) provide a good return on investment for this hospital	3%	3%	22%	39%	33%

system in 2007, the need to improve quality was cited by 52 percent (see Figure 2). The second most important factor was primary care physician demand, cited by 48 percent of hospitals. During the survey process, one executive stated he would begin a hospitalist program to “improve quality of care, improve core measure performance, initiate standardization of care, and address indigent ER admission issues.” Another executive remarked “the old model of health care where night call is done from home provides poor quality.”

Figure 2. Executives’ Reasons for Planning a Hospitalist Program



Acceptance not universal. Survey responders who stated that they did not have a hospitalist group and did not plan to implement one were most concerned that their hospital was too small (46 percent) or too costly (23 percent). Local physician opposition and satisfaction with current relationships with independent practice associations were cited by 20 percent.

Hospitalist Leader Survey Results

The goals of the hospitalist leader survey were to provide different perspectives on similar issues and to understand the organizational makeup of California hospitalists’ clinical practice structure.

Respondents. Responses more often came from hospitalists at:

- Higher volume hospitals (average daily census 185 vs. 118)
- Hospitals with more ICU beds (12 vs. 10)
- Hospitals affiliated with a medical school (40 percent vs. 25 percent)
- Northern California hospitals (56 percent vs. 40 percent)
- Public hospitals (11 percent vs. 4 percent)

While it is not clear how these differences would impact the findings, any affect is likely to be small.

Hospitalist group growth and turnover. Based on input from the advisory group, the research team asked hospitalists about the number of hires and departures in the past 12 months (see Table 3), as well as their overall program growth. On average, groups have added one-fourth of their number and turned over one-third (hires + departures) of their group during the past year.

Table 3. Measures of Hospitalist Growth / Turnover During the Past 12 Months

MEASURE	MEDIAN NUMBER OF HOSPITALISTS (1Q / 3Q)	MEDIAN PERCENT CHANGE (1Q / 3Q)
Hired	2 (1, 4)	+24% (12, 40)
Left	1 (0, 1)	+7% (0, 20)
Total Change	3 (1, 5)	+33% (19, 50)
Net Growth	1 (0, 2)	+13% (0, 25)

Organizational structure varies. The most common employment model for hospitalists was being part of a multi-specialty medical group (see Table 4). The vast majority (69 percent) of hospitalist groups receive financial support from their hospital. Most hospitalists receive a fixed salary with an additional bonus based on some aspect of performance including: productivity (73 percent), quality measures (60 percent), efficiency measures (36 percent), committee involvement (55 percent),

and research (4 percent). One hospitalist leader remarked: “I am worried about more and more push for incentives to be based on efficiency versus incentives based on quality.” Despite this specific concern, it appears that use of performance-based pay by hospitalists is ahead of use by other specialties and is a potential model for other clinical areas.

Multiple hospitals. Though most (68 percent) hospitalist groups indicated that they worked only within a single California hospital, 10 percent of groups worked in at least two hospitals, and 20 percent of groups worked in at least three. Approximately one-quarter of the hospitalist leaders reported that another hospitalist group was present at their hospital.

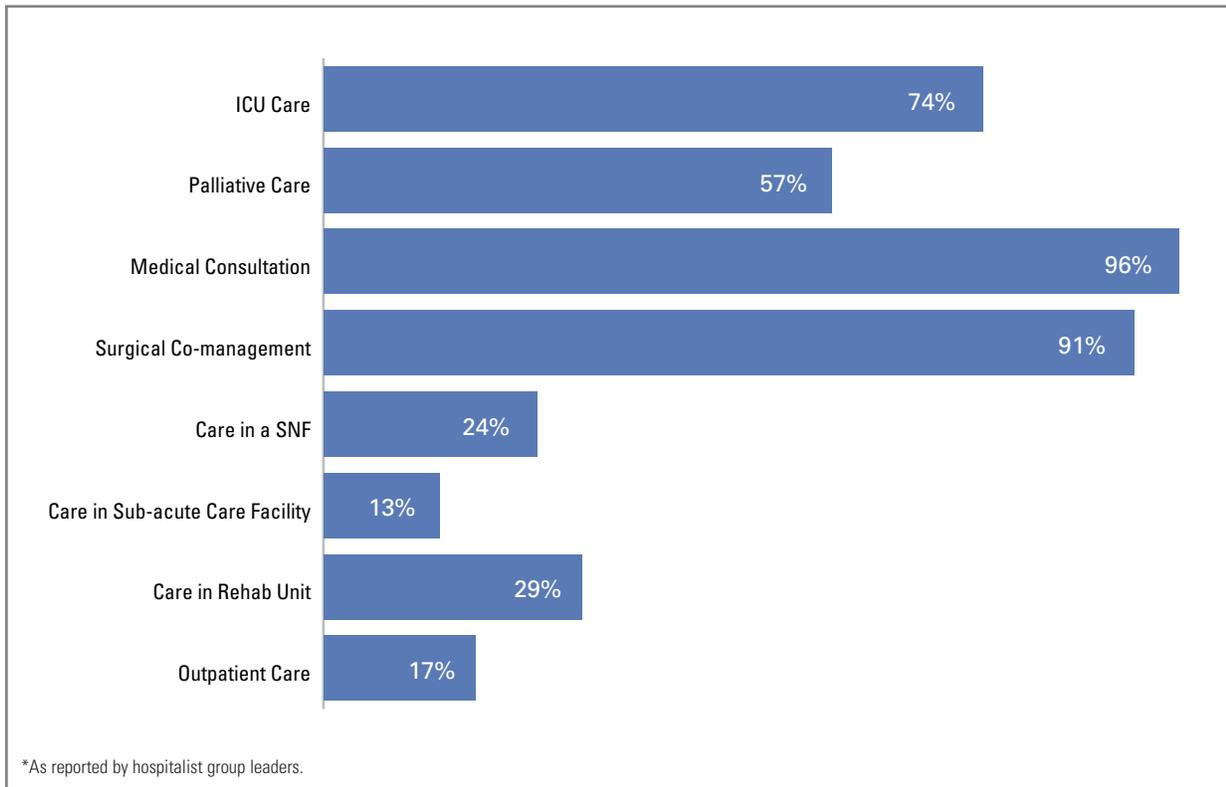
Not necessarily 24-hour care. About two-thirds of hospitalist groups provide inhouse 24-hour care; the rest take calls at home or rely on coverage from non-hospitalist physicians and moonlighters (physicians hired outside the group for the purposes of providing off-hours coverage). A minority (13 percent) of groups limited the number of admissions per day, but 77 percent limited the number of consecutive workdays without a break (see Table 4). Despite interest voiced by the advisory group, use of nurse practitioners or physician assistants in hospitalist systems was infrequent (15 percent).

Wide range of services. Hospitalists provide a diverse set of clinical services (see Figure 3), with medical consultation (96 percent), surgical co-management (91 percent), intensive care unit care (74 percent), and palliative care (57 percent) being very common. In the case of intensive care, hospitalists may be serving hospitals’ need for an “intensivist” in the ICU as a way to overcome the shortage of intensivist physicians nationwide. However, the role of the hospitalist in an ICU as a substitute for intensivist care is not well supported; this is one of several examples in which hospitalists’ job descriptions are expanding to meet local needs, but which may exceed the traditional knowledge base for general internists.

Table 4. Hospitalist Group Organizational Characteristics: Responses from the Hospitalist Leader Survey

ORGANIZATIONAL CHARACTERISTIC	SHARE OF GROUPS
Availability of hospitalists (N=69)	
Shift-based coverage	41%
Call-based coverage	24%
Hybrid shift and call	36%
In-house 24-hour coverage by hospitalists	
Yes	64%
No	36%
Limitations	
Limit on number of admissions	13%
Limit on consecutive days worked	77%
Admitting practitioners	
Hospitalist only	70%
Hospitalist and nurse practitioners/physician assistants	10%
Hospitalists and medical interns/residents	20%
Dedicated discharge coordinator for hospitalists group	34%
Employment model	
Hospital contracted	25%
University affiliated	7%
Local hospitalist group	19%
Multi-state hospitalist group	4%
Multi-specialty hospitalist group	35%
Other	10%
Compensation arrangement	
Fixed salary	27%
Fixed base salary plus performance bonus	59%
Productivity/billing only	10%
Billing/productivity plus performance bonuses	4%
Receive financial support from hospital	69%

Figure 3. Percent of Hospitalist Programs with Specified Clinical Care Activity*



IV. Conclusion

IN 2007 AT LEAST 59 PERCENT —AND PROBABLY CLOSER to two-thirds—of California hospitals have hospitalists. While non-hospitalist physicians continue to provide care for many hospital patients, hospitalist services are rapidly growing in number and expanding in scope beyond general medical wards. These trends will have a number of far-reaching implications for health care in California.

Although care for “uncovered” patients and improving hospital efficiency were the two most important factors in supporting a hospitalist program early on, additional imperatives argue for initiating programs today and in the near future. These include demand from primary care and sub-specialist physicians and the need to improve quality of care. The data suggest that hospitalists have already proved themselves a good investment for reducing costs and length of stay. Furthermore, these successes have led hospitals to see hospitalists as a solution to other efficiency problems, such as ED overcrowding and unnecessary admissions.

In 2007, hospitalists’ growth seems to be predicated on the perception of value provided today and by the potential for demonstrable improvements in quality and safety, although there is no data as yet to support these notions. It is important to conduct scientific inquiries so that hospital decisions on the business case for hospitalists can be based on evidence. Given the current prevalence of hospitalists in California it seems unlikely that hospitals will move to reduce or eliminate hospitalists, but increasingly they may ask for hard evidence (in the form of benchmarking data, performance on CMS quality measures, etc.) to justify subsidies.

The increasing scope of hospitalists’ clinical practice will have powerful effects on the eventual size of the California hospitalist workforce. Hospitalists may be asked to do work outside of their area of expertise, a trend at both academic and non-academic hospitals. In teaching hospitals, use of hospitalists to give care previously provided by residents poses unique problems not specifically examined in this study. For example, non-teaching roles are potentially viewed as less prestigious than traditional academic

appointments, but require substantially higher pay to recruit and retain these professionals.

Expansion of hospitalists into specialty services may produce both intended and unintended consequences. The hospitalist model allows medical specialists (and surgeons) to focus on their area of expertise, increases the specialist's efficiency and productivity, and thereby may improve patients' quality of care. On the other hand, hospitalists may be asked to do work that is partially outside their scope of training. Also, such expansion of the hospitalist role requires "rules of engagement" between the specialty service and hospitalists to insure that tasks and clinical responsibilities are coordinated effectively. Finally, reimbursement must be negotiated between specialists and hospitalists.

Current residency training may be ill-equipped to prepare residents to be effective hospitalists, since peri-operative medicine, critical care, palliative care, and quality improvement tend to be underemphasized in general internal medicine residencies. In the survey, both executives and hospitalists stated a desire for additional training or certification, and this is certainly a critical need. The specifics of training and the need for certification are presently under discussion at the American Board of Internal Medicine.

Since the hospitalist workforce is relatively mobile and demand for their services is rising, this is a "seller's market." Using hospitalists is seen as a competitive necessity in some markets, although recruiting and retaining them is a challenge. One hospitalist leader reported that his institution recently initiated a hospitalist service "to capture patients lost to competing hospitals who do have hospitalists." Hospitalists' salaries are escalating rapidly in the United States and in California, possibly fueling the notion that hospitalists are free agents likely to leave for a higher paying job nearby.

To control burnout, one executive, who had started two hospitalist groups, said he believes in capping

the service at 18 to 20 patients, 10-hour shifts, and a maximum of five workdays a week. This approach, which would almost certainly require financial subsidies from the hospital, seems more likely to produce a sustainable job than models in which hospitalists do not receive hospital subsidies and need to sustain high encounter rates to remain financially viable. Furthermore, reducing workload and increasing pay may help hospitals compete for hospitalist services. On the other hand, hospitals that do not subsidize their hospitalist services have lower start-up or ongoing costs. But they risk high turnover rates and may be missing an opportunity to engage key stakeholders in safety and quality-focused activities.

Finally, as the division between outpatient and inpatient practices continues to widen, it is unclear how hospitals will maintain vital connections with referring and primary care physicians. These connections are crucial to coordinating care during patient transitions and to ensure that patterns of subspecialty consultation are preserved. Primary care physicians who no longer come to the hospital are already seen as being less involved in hospital staff affairs, and many hospitals are struggling with ways to maintain contact with these physicians and to continue credentialing them as members of the medical staff. Although some hospitals are creating new medical staff categories to accommodate such physicians, it is clear that hospitals are opting for intense engagement with a limited group of hospitalists even at the expense of their powerful traditional links with a broad medical staff. The impact of this transition is just beginning to be felt.

Endnotes

1. Auerbach A.D., Nelson E.A., Lindenauer P.K., Pantilat S.Z., Katz P.P., Wachter R.M.. "Physician Attitudes Toward and Prevalence of the Hospitalist Model of Care: Results of a National Survey." *American Journal of Medicine* 2000;109:648–53.
2. Wachter R.M., Goldman L. "The Emerging Role of 'Hospitalists' in the American Health Care System." *New England Journal of Medicine* 1996;335:514–7.
3. Wachter R.M., Goldman L. "The Hospitalist Movement 5 Years Later." *Journal of the American Medical Association* 2002;287:487–94.
4. Craig D.E., Hartka L., Likosky W.H., Caplan W.M., Litsky P., Smithey J. "Implementation of a Hospitalist System in a Large Health Maintenance Organization: The Kaiser Permanente Experience." *Annals of Internal Medicine* 1999;130:355–9.
5. Smith P.C., Westfall J.M., Nichols R.A. "Primary Care Family Physicians and 2 Hospitalist Models: Comparison of Outcomes, Processes, and Costs." *Journal of Family Practice* 2002;51:1021–7.
6. Molinari C., Short R. "Effects of an HMO Hospitalist Program on Inpatient Utilization." *American Journal of Managed Care* 2001;7:1051–7.
7. Sehgal N.L., Wachter R.M. "The Expanding Role of Hospitalists in the United States." *Swiss Medical Weekly* 2006;136:591–6.
8. Huddleston J.M., Long K.H., Naessens J.M. et al. "Medical and Surgical Co-management after Elective Hip and Knee Arthroplasty: A Randomized, Controlled Trial." *Annals of Internal Medicine* 2004;141:28–38.
9. Meltzer D., Manning W.G., Morrison J. et al. "Effects of Physician Experience on Costs and Outcomes on an Academic General Medicine Service: Results of a Trial of Hospitalists." *Annals of Internal Medicine* 2002;137:866–74.
10. Pham H.H., Devers K.J., Kuo S., Berenson R. "Health Care Market Trends and the Evolution of Hospitalist Use and Roles." *Journal of General Internal Medicine* 2005;20:101–7.
11. Muir J.C., Arnold R.M. "Palliative Care and the Hospitalist: An Opportunity for Cross-fertilization." *Disease-a-Month* 2002;48:207–16.
12. Pantilat S.Z. "Palliative Care and Hospitalists: A Partnership for Hope." *Journal of Hospital Medicine* 2006;1:5–6.
13. Roy A., Heckman M.G., Roy V. "Associations Between the Hospitalist Model of Care and Quality-of-Care-Related Outcomes in Patients Undergoing Hip Fracture Surgery." *Mayo Clinic Proceedings* 2006;81:28–31.
14. Wachter R.M. "An Introduction to the Hospitalist Model." *Annals of Internal Medicine* 1999;130:338–42.
15. Lindenauer P.K., Pantilat S.Z., Katz P.P., Wachter R.M. "Hospitalists and the Practice of Inpatient Medicine: Results of a Survey of the National Association of Inpatient Physicians." *Annals of Internal Medicine* 1999;130:343–9.
16. The Society of Hospital Medicine. "Growth of Hospital Medicine Nationwide." Available at: www.hospitalmedicine.org/Content/NavigationMenu/Media/GrowthofHospitalMedicineNationwide/Growth_of_Hospital_M.htm. Accessed April 23, 2007; 2007
17. The Society of Hospital Medicine. "Hospital Medicine Specialty Shows 20 Percent Growth." Available at: www.hospitalmedicine.org/AM/Template.cfm?Section=Press_Releases&Template=/CM/ContentDisplay.cfm&ContentID=12507. Accessed April 23, 2007; 2007.
18. Weinstein D.F. "Duty Hours for Resident Physicians: Tough Choices for Teaching Hospitals." *New England Journal of Medicine* 2002;1275–8.
19. Manthous C.A. "Leapfrog and Critical Care: Evidence- and Reality-Based Intensive Care for the 21st Century." *American Journal of Medicine* 2004;116:188–93.
20. Kelley M.A., Angus D., Chalfin D.B. et al. "The Critical Care Crisis in the United States: A Report From the Profession." *Chest* 2004;125:1514–17.
21. Berenson R.A., Ginsburg P.B., May J.H. "Hospital-Physician Relations: Cooperation, Competition, Or Separation?" *Health Affairs* 2007;26:w31–w43.



CALIFORNIA
HEALTHCARE
FOUNDATION

476 Ninth Street
Oakland, California 94607
Tel: 510.238.1040
Fax: 510.238.1388
www.chcf.org