Physicians on Call:  
California’s Patchwork Approach to Emergency Department Coverage

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About the Foundation
The California HealthCare Foundation works as a catalyst to fulfill the promise of better health care for all Californians. We support ideas and innovations that improve quality, increase efficiency, and lower the costs of care. For more information, visit us online at www.chcf.org.
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I. Executive Summary

Background
In 2005, the California HealthCare Foundation (CHCF) issue brief On-Call Physicians at California Emergency Departments: Problems and Potential Solutions delved into underlying issues concerning, and approaches for addressing, the growing challenge of ensuring on-call access to physician specialists in California’s emergency departments (ED). CHCF funded the present study to update and document the status of on-call coverage in hospital EDs today, and to gain insight into what may lie ahead regarding this issue. The study was conducted by The Performance Alliance, in cooperation with the University of Southern California Center for Health Financing, Policy and Management. This study included a 2010 survey of hospitals, conducted in partnership with the California Hospital Association.

Current Status of ED Call Coverage
The strain on California EDs and on-call systems is increasing and suggests that hospitals’ ability to ensure ED specialty coverage has deteriorated in recent years. Evidence for this includes:

- In a national study, California received a D+ grade in emergency care overall and an F in ED access;
- A combination of ED closures and population growth resulted in a 29 percent increase in the average number of visits per ED between 1997 and 2006;
- The vast majority of California ED physicians report that specialists’ reluctance to take and respond to ED call due to patient insurance status doubled between 2000 and 2006;
- A recent survey of California ED physicians showed that the availability and willingness of specialists to take ED call diminished for ten out of 16 specialties between 2003 and 2006;
- Of more than 66,000 practicing physicians in California, 60 percent reside in only five counties, creating a geographic maldistribution of specialists; and
- Collectively, California hospitals paid more than $1.6 billion in 2008 for required on-call specialty coverage.

The continuing erosion of ED specialty call in California was further borne out by research conducted for this report:

- Slightly more than half of hospital executives surveyed believe that provision of on-call ED coverage in California has become more difficult since 2005;
- Of hospital executives surveyed, 88 percent say they have had to accept that payment for specialty call has “become a cost of doing business”; and
- Four-fifths of those surveyed agree that securing adequate specialty coverage is among their organization’s top ten business challenges or priorities.
On-Call Coverage: Strategies and Evolution
Myriad call coverage strategies are in use or in the process of being implemented among California’s hospitals. Often multiple approaches are used by a single hospital or system, depending on such factors as physician availability and community health care resources.

Compensation Strategies for ED Call Coverage
As on-call specialty costs have escalated, different forms of ED call panel compensation have evolved and matured. Stipends, which are simple and easy to administer, are now ubiquitous, although recent federal Office of the Inspector General guidance is forcing a more careful crafting of these arrangements. But stipends have proven extremely susceptible to cost escalation, which has stimulated expansion of productivity-based guarantee and hybrid compensation models. New and emerging compensation approaches include deferred compensation programs and clinical co-management agreements (CCMA). Designed to integrate ED call and other compensation with performance metrics, and to strengthen hospital-physician alignment, CCMAs are generating increasing interest as health care providers ready for the impact of health reform.

Provider Strategies for ED Call Coverage
Mandatory call for hospital medical staff remains a significant strategy for securing on-call coverage but has sharply declined in recent years. This decline, plus other difficulties in securing specialty coverage, has stimulated development of provider contracting strategies such as exclusive call contracts and ED call independent practice associations. Hospitalists increasingly have expanded into specialty fields and are helping to address the call problem. The shortage of specialists for ED coverage has also stimulated use of physician assistants and nurse practitioners as first responders. Finally, telemedicine and remote presence robotics represent the fastest growing strategy being employed by California hospitals for ED call coverage.

Care Improvement Strategies to Reduce the Burden of Call
Although their impact is not limited to on-call coverage, strategies that improve ED throughput and efficient care delivery may reduce the need to call a specialist or lessen inconvenience to the physician when a consultation is requested. A multidisciplinary task force to improve ED efficiency is, after stipends, the second most common ED call strategy among California hospitals. Rapid triage programs are another top strategy, and ED observation units are increasingly being used as well. ED fast-track programs have also become common and are evolving into internal EDs in which non-urgent patients wait in a designated area, freeing ED beds.

Organizational and Delivery System Strategies
Organizational and delivery system strategies can shape or alter how on-call services are provided. A number of hospitals and systems have developed medical foundations to directly engage with physicians, and use of this strategy is anticipated to grow. Community hospitals with limited specialty or sub-specialty physician resources are contracting out for back-up call panel coverage. Hospitals are also regionalizing call coverage, particularly smaller hospitals that need a robust tertiary referral system or selected tertiary services focused in centers of excellence. Establishing a regional transfer call center is a relatively new strategy for facilitating transfers for higher level of care.
Among California hospitals, sharing the burden of call coverage has broad conceptual appeal: Of hospital executives surveyed, 56 percent believe that regional or community call approaches offer strong potential for improving call coverage in their service areas. In 2009, federal Emergency Medical Treatment and Active Labor Act (EMTALA) regulations were modified to permit development of shared call arrangements through formal community call plans (CCP), but implementation of CCPs in California thus far has been limited. Issues of state licensing regulations, geography, and competition, in addition to EMTALA rules, are all factors. Still, many hospitals have indicated their interest in participating in CCP demonstration projects and learning more about them.

**Looking Ahead**
Passage of the federal Patient Protection and Affordable Care Act portends significant change and opportunity for hospitals and physicians. Overwhelmingly, industry observers believe that the Act will exacerbate the burden of specialty call coverage as greater insurance coverage increases demand for ED services. They express deep reservations about whether hospital ED and community primary care capacities will be sufficient, and foresee that reimbursement constraints and reductions may further diminish physicians’ willingness to take call.

It is broadly considered that technology deployment, particularly electronic health records (EHR), will have a significant, positive impact on ED specialty care in the future. Nearly three-quarters of California hospital executives surveyed believe that “expanded deployment/exchange of EHRs will facilitate specialty ED access in the future.”

**Conclusion**
Despite substantial innovation, development, and maturation of hospital on-call coverage strategies over the past five years, the underlying systemic problems that created the on-call crisis—from specialist shortages to changing physician lifestyles and practice preferences—remain unresolved and for the most part are worsening. Hospitals have shouldered the increasing financial burden under their legal obligation to provide patient access to specialty care in their EDs, and the accelerating price tag constitutes a growing economic weight on them. Expanded opportunities for shared or regional coverage, as well as emerging provider, technology, and care delivery strategies offer signs of promise. The added uncertainty about the impact of health care reform on specialists and EDs looms large, however, and will require new and collaborative approaches that recognize a shared responsibility between hospitals and physicians for ensuring access to quality, affordable care.
II. Introduction

Call Coverage in the Early 2000s

In 2005, the California HealthCare Foundation (CHCF) issue brief *On-Call Physicians at California Emergency Departments: Problems and Potential Solutions* delved into underlying issues, approaches, and potential solutions regarding the growing challenge of ensuring on-call access to physician specialists at California’s emergency departments (ED).¹ That issue brief examined why the existing on-call panel system was unstable. The reasons included:

- Inadequate funding/reimbursement for physicians taking call;
- Specialist supply and demand shortages due to geographic distribution;
- Numbers and training of specialists and subspecialists;
- Older physicians leaving or limiting their practices;
- Changes in physician lifestyles and practice preferences;
- Increase in managed care, which reduces the opportunity for specialists to build their practices through ED call coverage; and
- Concerns about legal liability.

The 2005 issue brief also looked at the various strategies California hospitals were using to address these problems, and in particular to meet ED on-call coverage requirements established by California’s state licensure law and the federal Emergency Medical Treatment and Active Labor Act (EMTALA).

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**EMTALA, California Title 22, and ED Call**

The Emergency Medical Treatment and Active Labor Act (EMTALA), also known as the Patient Anti-Dumping Act, requires that hospitals participating in Medicare must provide a medical screening exam to any person who comes to the ED requesting emergency services. This exam is to determine if the patient is in an emergency medical condition and, if so, the ED must also provide stabilizing treatment or transfer to another facility without regard to ability to pay. The cost of providing care required by EMTALA is not directly covered by the federal government.

The California Code of Regulations (CCR), Title 22, Division 5, provides standards for licensing and administration of health care facilities, including EDs. Among other things, ED licensing regulations require that hospitals have transfer agreements in place for situations in which patients need a level of care or services beyond the hospital’s capabilities.

To ensure access to specialty services, EMTALA and state licensing regulations require that each hospital providing emergency services not only treat patients presenting themselves at the ED, but also maintain a roster of specialist physicians available for on-call care or consultation. Federal regulations pursuant to EMTALA include rules for community call plans and on-call lists. Prior language requiring a hospital to maintain an on-call list “in a manner that best meets the needs of the hospital’s patients” was replaced with language that the on-call list must be maintained “in accordance with the resources available to the hospital,” including the availability of specialists, which recognizes hospitals’ challenges in securing ED specialty coverage and offers them greater flexibility.

EMTALA may impose financial and other penalties on any physician who fails to respond to an emergency call when assigned as the on-call physician. Hospitals may also receive heavy fines and other penalties for EMTALA violations. For more information and resources on EMTALA, see [www.cms.hhs.gov](http://www.cms.hhs.gov).
Findings from the study reported in the 2005 issue brief suggested that while no single solution would fully resolve the specialist call panel issues across California’s diverse health care communities, a number of strategies could address one or more aspects of the problem. These strategies include legislative measures, such as ones addressing compensation standards and corporate practice of medicine restrictions in California, as well as hospital or medical staff approaches ranging from changes in physician compensation to delivery system innovation. The concept of a regional/multi-facility competitive contracting system for on-call specialists was also explored and met with great interest among hospitals and physicians alike.

The Current Status of ED Call Coverage

Six years after the 2005 issue brief, California is in the midst of a deep recession, with an unemployment rate above 12 percent and more than 8 million people in the state without health care coverage. Many people who have lost private insurance coverage or have high copayments and deductibles delay seeking services or reduce their demand for non-urgent medical care. This has hurt hospital bottom lines, and patients tend to be sicker when they arrive in the ED. Government budget woes and cuts in health care reimbursements are placing added fiscal pressure on hospitals and physicians. One consequence of this combination of factors is an increased strain on EDs and on-call systems nationwide. The effects are dramatically evident in California:

- California hospitals provide approximately 10 million ED visits annually. While this total yearly figure has not changed substantially in recent years, ED closures and population growth have meant that the average number of visits per ED has increased 29 percent between 1997 and 2006, from about 23,300 to nearly 30,000.6
- In a national study, California earned a D+ grade in emergency care overall and an F in ED access.7
- Four-fifths of California’s ED physicians reported a doubling between 2000 and 2006 of specialists’ reluctance to take and respond to ED call due to patient insurance status (i.e., uninsured or poor payer coverage that would result in no or low reimbursement).8
- A recent survey of California ED physicians showed that the availability and willingness of specialists to take ED call had diminished for ten of 16 specialties within the three-year period 2003–2006. More than 80 percent of hospitals reported having internal medicine, obstetrics/gynecology, and pediatrics on call, but fewer than 60 percent of EDs reported having cardiac surgery, otolaryngology, neurosurgery, plastic surgery, or vascular surgery specialists available.9
- Of more than 66,000 practicing physicians in California, 60 percent reside in only five counties, creating a geographic maldistribution of specialists available for ED call.10

From these numbers, it seems evident that hospitals’ ability to ensure specialty coverage in their EDs has deteriorated in California over the past few years, an assessment borne out by the research conducted for this report: Slightly more than half of hospital executives responding to this study’s 2010 survey (see Study Methodology, below) and the vast majority of experts interviewed believe that provision of on-call ED coverage in California has become “more difficult.” One-quarter of those responding to the survey felt the problem has not changed substantially, 12 percent cited “less difficulty,” and
only 11 percent reported having “no difficulty” covering ED call.

The problem of ED call is unequally distributed. In the 2010 survey, rural and Critical Access Hospitals (CAH) expressed the greatest difficulty with call coverage. Urban and community hospitals, particularly trauma centers or those that treat a high volume of uninsured patients, also indicated problems securing call panels. On the other hand, academic medical centers, which can draw upon a pool of residents to provide coverage, and hospitals with mandatory call requirements or hospitalist programs, expressed little or no difficulty.

Nonetheless, only 67 percent of hospitals now rate specialty coverage as a “serious” or “somewhat” of a problem, compared with 89 percent in 2003. However, this reported lessening of the problem does not capture that 88 percent of responding hospitals report they have had to accept that “payment for specialty call has become a cost of doing business” and that it has now become “a line item in our budget.” As one hospital executive noted, getting specialists to take call is now “not a problem” only “because we are paying for it.” Correspondingly, citing rising compensation demands and a shortage of specialists, four-fifths of hospital survey respondents “agree” or “strongly agree” that securing adequate specialty coverage is among their organization’s top ten business challenges or priorities.

Given this sobering climate, the California HealthCare Foundation funded the present study to update and document the current status of on-call coverage in hospital EDs, and to gain insight into what may lie ahead. The researchers — The Performance Alliance (TPA), in cooperation with the University of Southern California Center for Health Financing, Policy and Management — partnered with the California Hospital Association (CHA) to address the following questions:

- How significant is the ED on-call specialist problem today? Has it been mitigated or is it continuing to grow?
- How widespread and productive has the use of physician compensation been in ensuring ED specialty access? Are there any evolving approaches that warrant consideration?
- What organizational and delivery system strategies are being used, and what is working well? Can they be expanded and matured to increase patient access to specialty services in the ED?
- To what extent have selected quality and care improvement strategies been incorporated in EDs to enhance capacity and facilitate the provision of service?
- Are community call plans (CCP) taking root in California, and are there promising strategies or initiatives that could stimulate the climate for CCP innovation?
- What is the anticipated impact of health care reform on EDs and physician specialty coverage?

This report summaries responses to these questions obtained during the course of research for the project, and analyzes how these responses help describe the current situation of ED call in California, as well as for the coming years.
III. Study Methodology

To assess the state of ED specialty coverage today and in coming years, TPA researchers collaborated with CHA in 2010 to create a self-administered online survey for California hospitals. To identify trends over time, a number of survey questions mirrored those of a 2003 CHA on-call study. The 2010 CHA/TPA survey was sent via CHA to either the chief executive officer or ED manager in each of 330 acute care hospitals reporting an available ED. Follow-up reminders were sent to non-respondents. A very substantial total of 110 completed surveys were received, for a response rate of 33 percent. A small number of hospitals responded only to selected question sets; these responses were included for those areas of inquiry. (For a summary of responses, see Appendix A.)

In addition to the survey, researchers performed a broad review of the literature and a search for relevant legislative updates since publication of the 2005 CHCF issue brief; numerous endnote citations have been provided as a resource on the topic. Also, the researchers conducted nearly three dozen interviews with a diverse cross-section of specialty on-call coverage experts and key informants. Researchers also solicited input from participants in a meeting of representatives from CHA and the California chapter of the American College of Emergency Physicians (ACEP). Among those interviewed for this study were hospital CEOs and ED administrators, ED and other physician specialists, association executives, and health care consultants and advisors. (See Appendix B.)
IV. On-Call Coverage: Strategies and Evolution

Myriad call coverage strategies are currently in use or in the process of being implemented among California’s hospitals. Often multiple approaches are used by a single hospital or system, depending on such factors as physician availability and community health care resources. The Clinical Advisory Board, Hospitalist Management Resources/The Greely Company, and Center for Studying Health System Change, among others, have well-documented a range of call coverage options from simple, but inevitably escalating, stipends to shared costs and sustainable physician-hospital alignment.\(^{12}\) To examine how such ED on-call strategies have evolved over the past five years or so among California’s hospitals, researchers for this project grouped strategies into four categories, as discussed in this section:

- Compensation;
- Provider engagement and use of technology;
- Care improvement to reduce the burden of call; and
- Organizations and delivery systems.

Compensation Strategies for ED Coverage

The cost of physician specialty call coverage has risen unabated in recent years. An MD Ranger study found that, during the period 2001–2008, average on-call expenses for a trauma hospital in California increased 8 percent annually, to almost $13 million. Non-trauma hospital specialty call average expenses jumped 16 percent per year, from $1.8 to $4.9 million. Collectively, California hospitals with EDs paid more than $1.6 billion in 2008 for on-call specialty coverage required by EMTALA and Title 22.\(^{13}\)

These steadily rising costs to hospitals reflect the fact that, unlike in previous eras, most on-call specialist physicians are now paid for their coverage. Nationally, 54 percent of physicians reported receiving some form of on-call compensation in 2008, according to a Sullivan, Cotter and Associates poll, with the amounts varying widely by region and by specialty. For example, in the western region, neurosurgeons received average daily compensation of $1,667, and non-surgical specialists $1,080.\(^{14}\) In California, 72 percent of orthopedic surgeons responding to a 2010 professional association survey indicated they receive on-call payments, with different rates for trauma ($2,000) and non-trauma ($700) surgeons; 84 percent of the respondents were compensated whether or not they were actually called.\(^{15}\)

The Rise of the Stipend

Little known a decade or so ago, stipends rapidly have become the primary mechanism through which physicians are compensated for call. Typically, stipends are a per-patient payment after a minimum threshold of services is provided, or are tiered according to on-call frequency, acuity, and physician scarcity.\(^{16}\) Whether structured on a daily, weekly, monthly, or annual basis, ED call stipends now are offered by 81 percent of California hospitals, up from 63 percent in 2003.\(^{17}\) Only 1 percent of respondents in the survey for this project had eliminated call stipends over the past five years.
Although stipends have an advantage over other compensation strategies in ease of administration, economically they seem unsustainable for hospitals, having prompted a costly upward financial spiral. Once a stipend system is established, it is difficult to keep costs from rising rapidly. Physicians taking call tend to request progressively higher compensation, and physicians in specialties and sub-specialties not paid for call see other physicians receiving payment and begin to demand stipends. Also, unequal compensation levels between types of specialists may create dissent among physicians and require continual monitoring and renegotiation. Stipends thus do little to foster a productive physician-hospital relationship, and they also potentially raise legal complications for those hospitals that use them.18 (See sidebar “Legal Update.”)

Hybrid Stipend Models
One-quarter of California hospitals are using or in the process of implementing a mix of stipends and payment guarantees to compensate physicians for treating patients who are uninsured or who have no assigned physician group through their managed care plans. Rates for these payments most often are benchmarked against a percentage of Medicare reimbursement rates, although structural methods vary.19 Other variants include offering a base per diem stipend for panel coverage and an activation fee paid when the physician is called, assuming no other reimbursement is available. This approach can accommodate differences in call volume and resource intensity among specialties, enabling hospitals to customize an overall call panel solution that fits coverage needs based on ED demand, medical staff composition, and local health care resources. This model provides a flexible approach that is particularly useful when a hospital is transitioning from a stipend-only compensation model.

Legal Update: Hospital Compliance with Federal Anti-Kickback Rules Regarding On-Call Compensation
Hospitals must ensure that their ED call compensation arrangements with physicians comply with the federal health care anti-kickback statute and with what is known as the Stark law, which establishes prohibitions on physician self-referral and other improper referrals.20 The federal Office of the Inspector General (OIG), which oversees these statutory prohibitions, has acknowledged the legitimacy of hospitals compensating physicians for on-call ED coverage. Within that acknowledgement, two recent opinions should be noted.

In 2007, OIG issued guidance regarding how call coverage arrangements may comply with the anti-kickback statute, indicating that hospitals may pay on-call services compensation at fair market value (FMV) in arm’s length transactions for actual and necessary items or services. Such compensation may not, however, take into account the volume or value of referrals or other business generated between the parties.21

The 2007 OIG opinion also outlined payments that it was more likely to consider unlawful, such as: compensation for “lost opportunity”; compensation for no identifiable services; payments disproportionate to regular practice income; and payments that compensate for services for which a physician receives separate insurer or patient payments. This clarification provided a much-needed road map for hospitals.22 Essentially, compensation in an on-call service agreement must be the result of bona fide bargaining. Further, hospitals are responsible for securing an objective market assessment to determine FMV for on-call services. In doing so, hospitals may not rely on market survey data alone; FMV must also take into account call volume, payer mix, and the physician’s potential ability to bill and collect.23

In 2009, another OIG advisory clarified that payments to specialty call physicians for services provided to a hospital’s uninsured patients, when the physicians received no other form of reimbursement, do not violate the anti-kickback statute.24 However, OIG reiterated its warning that compensation for “lost
Productivity-Based, Third-Party System
Although less common than stipends, contracting with a third-party entity to compensate physicians for treating unassigned patients at a fixed rate—either per relative value unit or as a percent of Medicare payments—has become a viable call coverage strategy for some hospitals. The third-party organization recruits and credentials physician participants, usually drawing primarily from the organized medical staff on a voluntary basis, and is responsible for scheduling, paying, and monitoring on-call staff. In this structure, physicians receive regular payments which shield them from financial and acuity risk. The hospital does not hire or contract directly with physicians, avoiding corporate practice of medicine and kick-back concerns. Also, not all specialty groups need be included in the third-party entity, which gives hospitals flexibility to respond to the local market.

In such a system, participating physicians sign over their accounts receivable in return for the guaranteed rate of reimbursement; the hospital then owns the accounts receivable and agrees to make up any shortfall between what is collected and the guaranteed rate. The hospital also pays billing, management, and other fees. The total cost of such a program is a function of unassigned patient volume, acuity, payer mix, and number of participating physicians. Thus, the amount of the guaranteed payments by the hospital will vary. For example, such a program is more costly for safety-net hospitals than for community hospitals that have a better payer mix. Perhaps best known among third-party call compensation management organizations is EA Health, which pioneered the performance-based pay model at Sharp HealthCare in 1992. A number of large California hospital systems are now EA clients, and about 17 percent of California hospitals have or are implementing a productivity-based guarantee program.

This third-party entity model appears to be financially and programmatically sustainable, as well as scalable to a regional or single hospital framework. Hospital executives experienced with these programs have indicated that productivity-based compensation is a more cost-effective strategy than that of escalating stipend payments, although losses from program subsidies may occur for the first one to two years of operation due to the length of time associated with accounts receivable transactions. As experience is gained in operating such a program, incentives (e.g., paying 145 percent of the Medicare reimbursement rate rather than 130 percent) can be built in to improve care and reduce ED inpatient lengths of stay. Such incentives may aid in offsetting program costs while enhancing physician compensation rates.

Compensation Pool
Another financial arrangement for on-call coverage is the compensation pool, in which a hospital allocates a fixed budget (e.g., quarterly) from which specialists are paid for otherwise unfunded care. The
hospital medical staff then works collaboratively to assess call needs, develop the call roster, and determine fair and equitable compensation levels for participating physicians based on the budget. A compensation pool can complement a hospitalist program and encourages specialists to participate in call because predetermined case rate payments have been established taking into account the acuity and volume of overall unfunded call demand. The combination of a fixed and therefore predictable budget for call coverage, plus the collaborative aspect of the program, makes it preferable to a simple stipend system for many hospitals.

Deferred Compensation
Deferred compensation, also known as 457f plans, is a relatively new call coverage strategy that provides tax-advantaged retirement income instead of cash payment. In California, 5 percent of hospitals report offering tax-deferred plans, and 2 percent are considering or in the process of implementing such a program. Deferred compensation appears best suited for an organization whose medical staff is not heavily dependent on immediate cash stipends, and where the staff is interested in long-term investment more than short-term income.

With such plans, a medical staff committee determines how to equitably allocate payments from a fund set aside by the hospital. The hospital purchases life insurance policies on physicians as a funding mechanism. Payments for services are deposited, tax-free, into individual physician accounts. During a period of vesting designed to encourage retention, physicians agree to comply with a negotiated personal services agreement or risk forfeiture of funds. Commonly, these agreements require that the physician remain in the community, accept Medicare or Medi-Cal patients and on-call responsibilities, and not invest in a competing facility. Over time, physicians tend to earn more money with deferred compensation plans than with stipends. Deferred compensation also helps to align physician compensation needs with the hospital’s own economic and patient care priorities.

Non-Economic Compensation
Non-economic incentives, such as preferred parking or favorable operating room start times for call-participating surgeons, are additional strategies that hospitals use to encourage specialty coverage. In the survey conducted for this project, about 5 percent of California hospitals reported offering or beginning to implement such perquisites.

Provider Strategies for ED Call Coverage
Mandatory call for hospital medical staff remains a significant strategy for hospitals to secure specialist coverage, but the number of hospitals using this mechanism is sharply declining. This decline, plus the other elements of hospitals’ growing difficulties securing specialty coverage, has stimulated development of provider contracting strategies such as exclusive call contracts and ED call specialty independent practice associations (IPA). Hospitalists, who first gained prominence in internal medicine, have increasingly expanded into specialty fields and thus to a certain extent also address the problem. The shortage of specialists for ED coverage has also stimulated the use of physician’s assistants (PA) and nurse practitioners (NP) as first responders. Finally, provider strategies centered on emerging medical technologies, including telemedicine and robotics, offer tantalizing prospects for improving patient access to specialty care in California’s EDs.

Mandatory Call Still Strong but Diminishing
Mandatory call can take several forms. Often, medical staff membership requires that physicians
spend a certain number of days on ED call coverage. In other cases, mandatory call may be triggered only in specialty departments for which voluntary coverage is not working, or in those that are not of sufficient size to reasonably cover call responsibilities. Mandatory call has long been a dominant strategy for providing call coverage but it has significantly declined in recent years. In 2003, more than three-quarters of California hospitals had mandatory call provisions in their medical staff by-laws; today, fewer than half do—a 40 percent decrease.\(^3\) A steep decline in mandatory call over the past five years has also been reported in two other recent California surveys, one of ED directors and another of orthopedic specialists.\(^34\)

Among the reasons for the decline in mandatory call has been an increasing resistance from physicians with privileges at several hospitals, who see mandatory call as an excessive burden, and from many older physicians who want to wind down their practices and reduce on-call days. Other physicians contend that their sub-specialization—itself an increasing phenomenon—makes them not competent to answer call for conditions outside of their skill sets. That said, mandatory call can still be a successful coverage strategy when all parties work together, with bylaws implemented by medical staff so that their concerns are directly addressed. In this regard, some hospital boards have declined to approve medical staff bylaws without an appropriate physician-driven plan for on-call coverage.

**Hospitalists on the Move**

The need for on-call coverage and sustainable alternatives to escalating stipends has spurred rapid growth in the hospitalist, or hospital medicine, movement. Hospitalists began as a California phenomenon, and according a 2007 CHCF report there are now about 30,000 nationwide.\(^35\) At least half—and up to two-thirds—of California hospitals now use hospitalists.\(^36\) In the ED, hospitalists handle inter-facility transfers at 70 percent of hospitals with a hospitalist program, screen ED patients at 66 percent, and staff ED observation units at 36 percent.\(^37\)

Internal medicine hospitalists is the most common hospitalist category. However, hospitalists have expanded into general surgery, orthopedics, obstetrics, gastroenterology, neurology, and other specialties, reducing the need to rely on pieced-together call panels for ED coverage. Surgical hospitalist programs, in particular, appear to be gaining momentum.\(^38\) The forerunner University of California, San Francisco program has documented both care and revenue improvements.\(^39\) Similarly, in 2007 in a non-trauma hospital setting in Northern California, Surgical Affiliates Medical Group, Inc. (SAMGI) launched a general surgery hospitalist program for two-hospital Sutter Medical Center. By 2008, SAMGI had cut ED-to-admission and ED-to-surgery times, reduced lengths of stay, which added 600 more available-bed days, and lowered costs for selected surgeries by 20 to 30 percent.\(^40\)

ED hospitalist programs work best when implemented as part of an integrated strategy to efficiently manage care from ED through inpatient care to discharge. Cost savings from a hospitalist program are commonly achieved through reduction in inpatient length of stay, and can offset hospitalist compensation.\(^41\) Industry experts note a growing trend to incentivize hospitalists for improving care quality and productivity.\(^42\) Hospitalist programs are seen as a way to increase hospital-physician collaboration and alignment, which will be pivotal if a bundled payment approach for doctors and hospitals is implemented, as anticipated, under health care reform.\(^43\)
Technology Expands Access
Telem medicine and robotics offer technology-based solutions for addressing physician specialty shortages. Both have the potential to improve care access and quality, enhance patient satisfaction, and reduce health care costs. Together, they are the fastest-growing strategies being employed by California hospitals for ED call coverage. More than one-third of hospitals report currently using one or both technologies in their EDs; nearly 20 percent are implementing such programs.44

A 2008 CHCF report documented the degree to which California has been in the forefront of telemedicine, from pioneering work at the University of California, Davis (UC Davis) to being the first state to require telemedicine reimbursement.45 That study identified the particular potential for telemedicine in such specialties as radiology, neurology, psychiatry, dermatology, and cardiology. One of the most promising applications of telemedicine is in emergency care. Telemedicine can provide ED physicians and their patients with real-time remote video-conferencing triage and diagnosis, and imaging and monitoring services for pediatrics, ophthalmology, gastroenterology, orthopedics, psychiatry, and neurology (particularly for strokes), among other specialties.46 Typically in a telemedicine network, a patient in one location undergoes medical assessment by a physician specialist at another site. Such capabilities are particularly useful for connecting small, community, or rural EDs, which are unable on their own to secure sufficient on-call specialty coverage, with sophisticated specialty consultation.

Although telemedicine shows great promise in alleviating ED call coverage problems, there have been numerous impediments to its rapid deployment. Among them has been the complexity and time required to establish the hospital medical staff privileges required for telemedicine providers to practice in the ED for which they are providing remote services (see also “Title 22 Restrictions and Community Call in California” sidebar on page 21).47 These issues are beginning to receive attention, however. For example, the Centers for Medicare and Medicaid Services (CMS) proposed regulations in June 2010 to streamline the process used to credential and grant privileges to telemedicine physicians by Medicare-participating hospitals partnering to deliver telemedicine services.48

The use of robotics within telemedicine is also on the rise. For example, at the Fountain Valley Medical Center ED, the InTouch RP-7 remote-presence robot has helped reduce first-contact neurology response time to less than 22 minutes. The robot not only offers specialists the convenience of seeing ED patients without traveling to the hospital, but also allows them to provide specialty access to distant hospitals or to those that have difficulty securing specific specialist coverage. With one physician thereby providing on-call coverage for multiple facilities, ED specialty access is increased for all those facilities. Lighting adaptations to the system even allow for a consulting physician to offer remote mentoring in robotic surgical procedures.49 Also, this particular unit’s functionality literally puts a face on the robot and offers the practitioner greater control than standard telemedicine. ED patient and physician acceptance of the process has been high.

Nationally, specialists utilizing robotic technology include cardiologists, nephrologists, OB/Gyns, pulmonologists, neurologists, dermatologists, and trauma/emergency medicine physicians. Telemedicine in California received an enormous boost when the California Telehealth Network (CTN) — the largest of its kind nationally — was launched in August 2010. With UC Davis as the control center, CTN is expected to link to 900 healthcare facilities by
2011. As telemedicine and robotics gain traction as a strategy for reducing on-call burden and increasing ED specialty access, greater efforts to facilitate implementation can be expected. CHCF has established the Center for Connected Health Policy as a strategy and planning body designed to lead and coordinate telehealth adoption throughout California.

**PAs and NPs as First Responders**

An innovation increasingly relied on to reduce the burden of specialty call and to address the shortage of providers is the use of PAs and NPs. Most widely used in emergency medicine practices, PAs and NPs are also working in California EDs as first responders for internal medical admissions, orthopedics, and other specialty areas. About 20 percent of California hospitals report PAs and/or NPs in the ED and other first responder settings. As a first responder, the NP or PA evaluates patients in the ED, contacts a specialist if necessary, and arranges a subsequent consultation for those patients who are admitted. The mid-level provider also follows these inpatients to facilitate care coordination. The use of PAs and NPs may be of particular value at hospitals with relatively high specialty consult volume or high levels of unassigned patients, and in addressing on-call issues in specialties for which physician lifestyle and compensation issues are foremost.

Although EMTALA requires that on-call coverage be provided by a physician specialist, a PA or NP may respond to a call from the ED on a specialist physician’s behalf if agreed to by the ED physician. EMTALA also permits Critical Access Hospitals to allow PAs or NPs to take ED call in certain circumstances.

**Exclusive Contracts with Specialists**

Exclusive contracts with specialists, which can include hospitalists, for call coverage are in effect in 40 percent of California hospitals. In exclusive contracting, the hospital defines its call needs and issues a request for proposals from interested specialists. The contracting specialist group receives income guarantees and exclusive right to cover all unassigned patients in that specialty.

**Specialty IPA Physician Contracting**

The Scripps Health system has been at the forefront of creative solutions to specialty call coverage. In one of the first examples of specialty IPA contracting, a group of physicians at Scripps Memorial Hospital Encinitas agreed to provide on-call ED duty for the same annual amount the hospital had spent the prior year—and to drive up quality scores, as well. A two-year agreement was crafted to form a special purpose IPA only for ED calls.

A number of California hospitals (9 percent) say they have followed the Scripps Encinitas lead and forged specialty IPA contracts for on-call services physicians; an additional 2 percent report considering this approach. This so-called “connect the docs” strategy offers hospitals the advantage of a predictable cost for call coverage. It requires strong hospital-physician trust, however, to reduce the possibility of the IPA later leveraging its exclusive position by making greater compensation demands.
Care Improvement Strategies to Reduce the Burden of Call

Although their impact is not limited to on-call coverage, strategies that improve ED throughput and efficient care delivery may reduce the need to call in a specialist or lessen the specialist’s inconvenience when a consultation is requested. Several strategies that focus on ED quality and performance enhancement are noteworthy.

ED Throughput and Rapid Triage

A multidisciplinary task force to improve ED efficiency is the second most common on-call strategy reported in this project’s CHA/TPA survey, after stipends. Three-quarters of California hospitals have implemented an interdepartmental group to remove ED bottlenecks and inefficiencies, and another 11 percent are weighing doing so. Vertically integrating care across departments reduces ED wait times, overcrowding, and boarding of patients pending bed availability.

Throughput task forces often work in conjunction with rapid triage programs, such as the Rapid Medical Exam (RME©) pioneered by California Emergency Physicians America. Rapid triage can reduce patient wait time and improve hospital revenues, patient satisfaction, and care delivery. Between 50 and 60 percent of California hospitals employ rapid triage methods.

ED performance improvement has a system-wide emphasis at Catholic Healthcare West (CHW). In consultation with CHW hospitals, a former ED manager in the system’s operations group spearheads the measurement and improvement of ED “vital signs.” CHW implemented Toyota Production System Lean value stream mapping in early 2010. Coupled with its use of RME©, CHW dramatically reduced the number of patients who left without treatment to less than 1 percent within five months and also produced significant reductions in door-to-provider time.

Other approaches can be taken to address ED throughput and call burden reduction. Among Web-based resources available to hospitals are the Emergency Nurses Association’s “Successful Solutions to Crowding” and information provided by the Institute for Health Improvement.

From Fast-Track to Internal ED

Nearly two-thirds of California hospitals offer a fast-track option in the ED; another 8 percent of hospitals are in the process of implementing one. Fast-track programs provide designated treatment spaces where patients with low-urgency or non-urgent conditions can be medically screened to determine appropriate care. Patients typically remain in a bed or chair in the ED until treatment
is rendered. The program reduces wait times from arrival to provider, increasing both patient satisfaction and ED capacity.

A rather recent evolution in the fast-track concept is the internal ED. As with fast-track, low-acuity patients are first medically screened, then they are moved from the treatment station to an ED-internal waiting space, separate from the ED arrival area. Here, patients can be monitored as tests are performed or processed, freeing an ED bed for other patients. Internal EDs typically work in conjunction with a rapid triage program, and appear to be a growing trend.69

ED Observation Units
ED patients frequently require services beyond their initial care, to determine their need for inpatient admission. These reimbursable services may include further diagnostic evaluation, therapy, or management of acute psycho-social issues. Some hospitals address this need by establishing observation units for specific conditions, such as chest pain, asthma, or congestive heart failure. ACEP considers observation of appropriate ED patients in a dedicated area, rather than in a general inpatient bed, a “best practice.”70 These observation units can decrease the burden of specialty call by enabling the ED physician to manage, monitor, and discharge the patient without calling a specialist or having to create a more convenient place than the main ED for specialists to see patients. Although only 20 percent of California hospitals report having an ED observation unit, another 15 percent identified it as a strategy being considered or implemented.71

ED Physician/On-Call Specialist Collaboration
To reduce specialty call burden, some ED physicians are working with their call panel specialist colleagues to clarify when it is essential for a specialist to come into the hospital. The consultation guidelines, developed collaboratively, ensure that ED physicians make appropriate use of call, diagnose and stabilize the patient to be seen the next day, or identify additional procedures to perform without back-up. The use of such guidelines helps to balance the number of specialty consultations with the needs of patients, and also helps to address potential ED liability concerns.72

Organizational and Delivery System Strategies
Organizational and delivery system strategies can shape or alter how on-call services are provided. These strategies include on-call coverage agreements between hospitals, engagement with an affiliated medical foundation, regionalized call and/or transfer agreements, and emerging opportunities under EMTALA for implementation of community call plans.

Medical Foundations and On-Call Burden
In many states, hospitals resolve some of their on-call coverage obligations by directly employing physicians, including specialists such as hospitalists, orthopedists, or traumatologists.73 California bans the corporate practice of medicine, however, which means that direct employment of physicians by hospitals is not permitted except under limited exemptions: professional medical corporations, health maintenance organizations, county and academic facilities, hospitals with community clinics, and medical foundations.74

Over the past two decades, a number of hospitals and systems in California have developed medical foundations in order to directly collaborate with physicians. This model appears to be more prevalent in the Sacramento, San Francisco, and San Diego areas where there are high concentrations of hospitals
and physicians. However, the cost and complexity of developing a medical foundation have been beyond the practical reach of many community hospitals. To level the playing field, the Hospital Council of Southern California and the Hospital Council of Northern and Central California recently facilitated the establishment of two private, not-for-profit foundations as a way to share resources and align with the goals of recent health care reform legislation. Although not originally conceptualized as a strategy to improve call coverage, the new foundations could provide an avenue for doing so for hospitals that have been precluded from establishing their own medical foundations.

As hospitals and physicians position themselves for health care reform, the medical foundation strategy is likely to receive greater attention in California. (For a thorough discussion of the development and future of medical foundations in California, see CHCF’s December 2010 publication Physician-Hospital Integration in the Era of Health Reform.) However, as has been shown by the example of hospitals elsewhere that directly employ physicians, medical foundations alone cannot be expected to solve the growing problem of on-call coverage: Between 55 and 60 percent of hospitals nationally reported employing physicians to provide specialty call, yet 48 percent still had to pay doctors to provide on-call services.

**Contracting Out for Coverage**

In communities with shortages of specialists to accept on-call responsibilities, or where sub-specialty service capabilities are limited, some hospitals are contracting with neighboring facilities to complete call panel coverage through back-up agreements. (Within the same hospital system, such arrangements between sister facilities may only need to be informal if there is substantial duplication between the medical staffs’ members providing ED call coverage.) In designing and implementing such arrangements, care must be taken to avoid “patient dumping.”

Compliance with state licensing regulations also must be considered in developing these arrangements. (See “Title 22 and Community Call in California” sidebar on page 21.) If patients are to be moved from one facility to another, transfer policies must carefully delineate the conditions under which this may occur, to ensure that EMTALA requirements are met. About 20 percent of California hospitals report having or being in the process of implementing back-up coverage agreements for specialty panel coverage, most commonly for cardiac care and neurosurgery.

**Regional Arrangements**

Another approach aimed at ensuring adequate availability of specialists involves regionalizing call coverage at one facility through transfer agreements with other facilities. This approach is especially relevant for community or rural hospitals without a full specialty panel, which need a robust referral system for complex tertiary care services that they cannot provide. Under this kind of regional arrangement, an academic medical center or trauma facility agrees to accept higher level of care (HLOC) transfers from other facilities in the region that have more limited capabilities, and may also agree to complement primary on-call coverage through telemedicine or other means. In California, 28 percent of hospitals report having such regional arrangements; another 9 percent are looking at implementing them. Some Southern California hospitals have developed selected regionalized transfer agreements, such that one hospital is a primary transfer facility for a defined clinical service (e.g., neuroradiology) while other specific specialty cases (e.g., pediatric intensive care) are referred to
another facility, and still another type of specialty care (e.g., burns) is taken on by a third.

Arranging for HLOC transfers among facilities can be challenging, and specialists express concern about inappropriate transfers. California ED directors reported that their ability to arrange for the timely transfer of patients to higher levels of care has become more difficult in recent years for all specialties. For example, in 2008 more than 40 percent of ear, nose, and throat, orthopedics, plastic surgery, and mental health HLOC transfers took more than three hours. Communication is essential between the transferring EDs and the receiving facilities, and also between receiving trauma centers and their on-call specialists. An example of the consequences of poor communication was revealed by a study of orthopedic transfers, which found that 52 percent of the transfers were inappropriate; of these inappropriate transfers, more than 97 percent were accepted by the trauma center emergency physician without having communicated with the on-call orthopedist.

The use of transfer centers is a relatively recent strategy for helping to coordinate the sometimes disparate elements involved in HLOC transfers. In Northern California, the Sutter Health Regional Transfer Center was launched in 2009, with experienced case managers assisting ED physicians and hospitals to coordinate patient screening and transfer arrangements. The center tracks bed availability and capacity for transfers to Sutter tertiary facilities or other hospitals, although not all departments in all hospitals are covered. Initially launched with 22 participating hospitals, this 24/7 call center now coordinates with 73 facilities and averages 150 to 200 calls monthly. EDs lacking specialty coverage occasionally get help from the transfer center in finding a hospital that has adequate coverage; however, the center’s primary purpose is to facilitate HLOC transfers.

Recognition has also been growing of the importance of effective mechanisms for coordinating emergency care across regions. The federal Department of Health and Human Services recently issued a comparative effectiveness solicitation to acquire detailed information about regional emergency care system development and accountable emergency care, in anticipation of providing technical assistance and guidelines for subsequent demonstration projects. In addition, an Institute of Medicine (IOM) workshop convened stakeholders to examine both the lessons learned to date and new models of regional emergency care being developed for patients with cardiac arrest and stroke, pediatric patients, and others. The IOM also sought to identify features of regionalization that can make it an effective strategy for improving operational efficiency and enhancing patient care.

Community Call: Interest and Impediments

The concept of community or regional contracting has been very favorably received among California hospitals, and EMTALA regulations issued in 2003, which allowed physicians to serve on more than one call panel simultaneously, began to crack open the federal regulatory door for shared call. Issues such as California’s corporate practice of medicine prohibition and concerns about collusion and anti-trust laws have continued to limit implementation of this approach, however, and dampened early hospital enthusiasm. Nonetheless, among California hospitals today, sharing the burden of ensuring sufficient call coverage continues to have considerable conceptual appeal: Of respondents to the present project’s survey, 56 percent “agree/strongly agree” that regional or community call approaches offer strong potential for improving call coverage in their service areas.
EMTALA Community Call Plan Regulations
Allowing Shared ED Call

Recognizing the challenges hospitals face in providing ED on-call specialty access, in 2008 CMS adopted several significant EMTALA changes, including new regulations for the development of community call plans (CCP). In 2009, CMS issued further guidance regarding transfer statements and back-up plans under the CCP regulations.88

CMS also amended EMTALA regulations governing maintenance of an on-call list of physicians capable of providing call coverage. The requirement that a hospital maintain an on-call list “in a manner that best meets the needs of the hospital’s patients” was removed. Amended regulations broadly state that an on-call list must be maintained “in accordance with the resources available to the hospital,” including the availability of physician specialists in the community, to meet patient needs.

Federal regulations for community call now permit two or more hospitals to develop and implement a plan to coordinate on-call coverage in a specific geographic area. In effect, hospitals participating in a CCP can divide responsibilities for a defined period (e.g., Hospital A covers days 1 to 15 and Hospital B covers days 16 to 31 monthly), a specific service (e.g., Hospital A covers neurology and Hospital B covers gastroenterology), or some combination thereof. Under the federal rules, essential components of a CCP—which must be memorialized in a formal document but does not need CMS prior approval—include:

- Evidence that all local and regional emergency medical services system protocols formally include information on the community on-call arrangements;
- Written recognition that any hospital not designated as the on-call hospital still has an EMTALA obligation to provide a medical screening examination and stabilizing treatment within its capability;
- Signatures from appropriate representatives of each hospital participating in the plan;
- Written policies and procedures to cover situations in which an on-call physician is unable to respond because of factors beyond his or her, or the responsible facility’s, control; and
- Annual reassessment of the call plan by participating hospitals.

A CCP can operate within a single hospital system, or between different, otherwise unaffiliated hospitals. In the case of a hospital system with one main campus and other, smaller facilities, the hospitals could form a geographic CCP, designating the main facility as the on-call facility for many services; physicians in the affiliated facilities would not need to take call. Similarly, in communities with only a few specialists to cover multiple hospitals, a CCP could designate one hospital during a defined period and the specialists would not need to be on simultaneous call at any other facility. In large communities, hospitals could take turns providing call, while lessening the burden on specialists.89

Implementing Community Call

The impact of the recent CMS regulations and guidance can be fully identified only as hospitals develop and implement CCPs. While the additional flexibility was welcomed by hospitals, many practical
challenges remain. Issues range from considering which hospitals and what geographic areas should be included, to transfers between hospitals, potential HIPAA violations, impact on physicians’ and hospitals’ call panel financial arrangements, and antitrust legal risk. Potential problems raised by competition among hospitals and by hospital or medical community politics also figure prominently when assessing the feasibility of community call.

Despite the strong interest in CCPs, plans have been slow to develop in California. Information on the number of formal CCPs and more informal shared call arrangements in California hospitals is limited, but among hospitals responding to the current project’s CHA/TPA survey, only about 12 percent reported current involvement in community call or some form of less formal shared call; another 5 percent are considering or are in the process of implementing a CCP. One hospital system respondent noted plans to launch a regional, multi-hospital ED call program that will feature “a hybrid of productivity-based pay and base stipends” as a mechanism to support system physicians. Hospital systems with facilities in geographic proximity to each other may be more conducive to CCPs than unrelated hospitals. That is because competition tends to be milder within a hospital system than between independent hospitals, and existing collaboration among medical staffs may facilitate inter-hospital privileging of physicians who must provide call at more than one facility—a major consideration in implementing community call (see discussion of Title 22 restrictions, below).

Even with the hurdles discussed above, interest in community call remains high among hospitals. Although there appeared to be some lack of clarity among survey respondents regarding contracted, shared, regional, and community call arrangements, nearly one-quarter reported that they would like to pursue community call and participate in a CCP demonstration project, and an additional 42 percent were interested in learning more about exploration of a community call initiative.91

Title 22 Restrictions and Community Call in California

Despite CMS's new, more supportive federal rules, hospital experts interviewed for this project perceive that current California Department of Public Health (CADPH) state licensing regulations constrain the prospect for community call due to what they term “restrictive” medical staff privileging requirements. California Title 22 requires that all providers in an ED be members of the hospital’s organized medical staff. While not prohibiting CCPs, CADPH has advised hospitals wishing to participate in a CCP to do “at least one of the following” to address the Title 22 medical staff membership requirement: (1) submit a request to CADPH for program flexibility for non-member physicians to participate in a CCP; (2) ensure that all community call specialists are members of the medical staff of each participating hospital; or, (3) pursue legislation to allow conformance with federal regulations. Additional guidance from CADPH included a process for obtaining prior approval and limited conditions under which an exemption may be considered.92
V. Looking Ahead

Passage of the Federal Patient Protection and Affordable Care Act portends significant change and opportunity for hospitals and physicians. California hospital executives, medical professionals, and other industry leaders were queried for this project as to the implications of health care reform (HCR) and emerging technologies for the future of on-call coverage. Overwhelmingly, industry observers believe that “HCR will exacerbate the burden of specialty call coverage due to increased access and demand for ED services.” Four-fifths of California hospitals surveyed “agree/strongly agree” with this statement.93

ED Capacity
Industry leaders express deep reservations as to whether hospital ED and community primary care capacity will be sufficient to accommodate the large numbers of people who will become insured following HCR and who will therefore place new demands on the health care system. California Budget Project estimates are that, by 2019, expanded Medi-Cal eligibility could add as many as 3.5 million more Californians to the approximately 7 million enrolled in Medi-Cal today.94 Because Medi-Cal enrollees are more likely to use EDs than the uninsured,95 enormous impact on EDs and on-call coverage is envisioned. A new ACEP survey concurs: More than 70 percent of ED physicians believed visits will continue to rise under health care reform; 54 percent predicted the number of specialists willing to respond to ED calls will drop.96

Financial Health of EDs and On-Call Physicians
Health care leaders interviewed for this project also foresee financial difficulties for EDs, as well as defections of providers willing to accept Medi-Cal, due to historically low Medi-Cal reimbursement rates. Currently, about 25 percent of California physicians provide care for some 80 percent of Medi-Cal beneficiaries.97 In addition, as Medicare physician reimbursement rates continue to decline relative to private insurance payment rates, some physicians—including on-call specialists whose guaranteed reimbursement rates are tied to a percentage of Medicare payments—may chose to reduce or reject on-call coverage to the degree possible. Another perspective from interviewees suggests that physicians are likely to see restructured payments under HCR’s bundled payment system that might eliminate on-call stipends altogether.

Specialty Care Access
Hospital executive interviewees were ambivalent as to whether “health reform initiatives such as non-denial of out-of-network ED claims and pilot programs for innovation in coordinating regional ED call coverage will improve specialty care access in the next five years.” While 47 percent “agree/strongly agree” that there will be improvements, 44 percent “somewhat/strongly disagree” that such efforts will produce demonstrable benefits.

Major transformations in the organization and delivery of health care are anticipated under health reform. Physicians and health care experts expressed uncertainty about the impact that accountable care organizations will have on emergency care and other
Physician specialty practices, but optimism about some aspects of health reform is strong. Hospital executives believe that regional or community call has potential for improving patient access to ED specialty care,98 and that HCR demonstration projects hold some promise for development of new models for call coverage.

**Technological Advances**

Technology deployment, particularly electronic health records (EHR), is seen by interviewees as having significant impact on ED specialty care in the future. Nearly three-quarters of California hospital executives surveyed believe that “expanded deployment/exchange of EHR will facilitate specialty ED access in future.”

Industry leaders interviewed generally embraced the increasing use of technology. Some suggested that EHRs will link EDs and specialists to primary care medical homes, providing connectivity that could, in turn, help reduce unnecessary specialty care in the ED, enhance care coordination, and reduce medical liability risk. Others pointed to the use of technology to facilitate rapid medical testing and care delivery, whether in the ED or in a neighborhood retail clinic that could absorb some of the increased demand for primary care. Health information exchanges also are envisioned as critical mechanisms for improving care delivery through timely knowledge-sharing among hospital emergency physicians, specialists, and transfer facilities.
VI. Conclusion

Despite substantial innovation, development, and maturation of hospital on-call coverage strategies over the past five years, the underlying systemic problems that created the on-call crisis—from specialist shortages to changing physician lifestyles and practice preferences—remain unresolved and for the most part are worsening. Hospitals have shouldered the increasing financial burden under their legal obligation to provide patient access to specialty care in their EDs, and the accelerating price tag constitutes a growing economic weight on them. Expanded opportunities for shared or regional coverage, as well as emerging provider, technology, and care delivery strategies offer signs of promise. The added uncertainty about the impact of health care reform on specialists and EDs looms large, however, and will require new and collaborative approaches that recognize a shared responsibility between hospitals and physicians for ensuring access to quality, affordable care.
### Appendix A: California Hospital Association/The Performance Alliance On-Call Survey Summary

#### TABLE 1. SCOPE OF PROBLEM

<table>
<thead>
<tr>
<th>Serious Problem</th>
<th>Somewhat of a Problem</th>
<th>Not a Problem</th>
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</thead>
<tbody>
<tr>
<td>At your hospital, is the lack of an on-call physician coverage for the ED a problem?</td>
<td>12%</td>
<td>55%</td>
</tr>
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</table>

#### TABLE 2. CHANGE IN CALL DIFFICULTY

<table>
<thead>
<tr>
<th>Has Become More Difficult</th>
<th>Has Become Less Difficult</th>
<th>Has Not Changed</th>
<th>Has Not Been a Problem in Our Organization</th>
<th>Not Sure/No Opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over the past five years, has the difficulty of ensuring adequate ED specialty coverage changed in your hospital?</td>
<td>51%</td>
<td>12%</td>
<td>25%</td>
<td>11%</td>
</tr>
</tbody>
</table>

#### TABLE 3. ON-CALL STRATEGIES

| Currently Doing | Implementing/Considering | Stopped |  |
|------------------|--------------------------|---------|
| Stipends         | 81%                      | 1%      | 1%  |
| ED throughput task force | 75%                   | 11%     | 4%   |
| ED fast-track program | 65%                | 8%      | 8%   |
| Rapid Medical Exam (RMC©) or similar | 50% | 10% | 4% |
| Mandatory call   | 47%                      | 1%      | 9%   |
| Exclusive contracts with specialists | 40%                  | 1%      | 3%   |
| ED hospitalist program(s) | 39%            | 11%     | 1%   |
| Telemedicine or robotics | 34%               | 18%     | 6%   |
| Regional call arrangements | 28%            | 9%      | 1%   |
| Mix of stipends and guarantees | 21%          | 5%      | 5%   |
| ED observation unit | 20%               | 15%     | 5%   |
| PAs/NPs as first responders | 19%          | 3%      | 2%   |
| Contracting with another hospital | 18%       | 2%      | 2%   |
| Community call    | 12%                      | 5%      | 1%   |
| Third-party administered compensation program | 11% | 6% | 0% |
| Specialty IPA for ED call coverage | 9% | 2% | 0% |
| Deferred compensation program | 5% | 2% | 1% |
| Non-economic incentives | 3% | 2% | 2% |

Surveys sent: 330  
Responses: 110  
Response rate: 33%
<table>
<thead>
<tr>
<th>TABLE 4. ON-CALL STRATEGIES BY CATEGORY</th>
<th>Currently Doing</th>
<th>Implementing/Considering</th>
<th>Stopped</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation Strategies</td>
<td></td>
<td></td>
<td></td>
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<td>5%</td>
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<td>6%</td>
<td>0%</td>
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<tr>
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<td>2%</td>
<td>1%</td>
</tr>
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<td></td>
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<td></td>
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<tr>
<td>ED observation unit</td>
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<td>15%</td>
<td>5%</td>
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<tr>
<td>Provider Strategies</td>
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<tr>
<td>Mandatory call</td>
<td>47%</td>
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<td>9%</td>
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<td>Exclusive contracts with specialists</td>
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<td>1%</td>
<td>3%</td>
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<td>PAs/NPs as first responders</td>
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<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Specialty IPA for ED call coverage</td>
<td>9%</td>
<td>2%</td>
<td>0%</td>
</tr>
<tr>
<td>Organization/Delivery Strategies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regional call arrangements</td>
<td>28%</td>
<td>9%</td>
<td>1%</td>
</tr>
<tr>
<td>Contracting with another hospital</td>
<td>18%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Community call</td>
<td>12%</td>
<td>5%</td>
<td>1%</td>
</tr>
<tr>
<td>Non-economic incentives</td>
<td>3%</td>
<td>2%</td>
<td>2%</td>
</tr>
</tbody>
</table>
### TABLE 5. CURRENT SITUATION AND FUTURE TRENDS

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Somewhat Disagree</th>
<th>Disagree</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payment for specialty call has become a “cost of doing business” and is a line item in our budget.</td>
<td>45%</td>
<td>43%</td>
<td>4%</td>
<td>2%</td>
<td>5%</td>
</tr>
<tr>
<td>Securing adequate specialty call coverage is among the “top 10” challenges/business priorities in our organization.</td>
<td>34%</td>
<td>47%</td>
<td>9%</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>Specialists who are non-contracting with health plans with our hospital are a significant problem.</td>
<td>10%</td>
<td>32%</td>
<td>38%</td>
<td>12%</td>
<td>7%</td>
</tr>
<tr>
<td>Health reform will exacerbate the burden of specialty call coverage due to increased access and demand for ED services.</td>
<td>47%</td>
<td>33%</td>
<td>14%</td>
<td>1%</td>
<td>3%</td>
</tr>
<tr>
<td>Health reform initiatives such as non-denial of out-of-network ED claims and pilot programs for innovation in coordinating regional ED coverage will improve specialty care access in the next five years.</td>
<td>9%</td>
<td>38%</td>
<td>34%</td>
<td>10%</td>
<td>3%</td>
</tr>
<tr>
<td>Expanded deployment/exchange of electronic medical records will facilitate access to ED specialty care in the future.</td>
<td>29%</td>
<td>45%</td>
<td>13%</td>
<td>7%</td>
<td>4%</td>
</tr>
<tr>
<td>Regional or community call initiatives offer strong potential to improve call coverage in our service area.</td>
<td>12%</td>
<td>44%</td>
<td>25%</td>
<td>7%</td>
<td>10%</td>
</tr>
</tbody>
</table>

### TABLE 6. COMMUNITY CALL DEMONSTRATION PROJECT

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>Interested, but Need More Information</th>
<th>No</th>
<th>Not Certain</th>
</tr>
</thead>
<tbody>
<tr>
<td>If there is an opportunity for a demonstration project around regionalized or community call plans, would your organization be interested in participating?</td>
<td>24%</td>
<td>42%</td>
<td>18%</td>
<td>16%</td>
</tr>
</tbody>
</table>
Appendix B: List of Interviewees

Peter Anderson, M.D.
Emergency physician
Fountain Valley Regional Medical Center
Fountain Valley, CA

Teresa Brown, R.N.
Director, ED
St. Mary’s Medical Center (SJHS)
Apple Valley, CA

Martin B. Buser, M.P.H., F.A.C.H.E.
Founding partner
Hospitalists Management Resources, LLC
San Diego, CA

Diana S. Contino, R.N., M.B.A., F.A.E.N.
Senior manager, strategy and operations
Deloitte Consulting
Orange County, CA

Irving Edwards, M.D., F.A.C.E.P.
Chairman
Emergent Medical Associates
Past president
California Association of Emergency Physicians
Manhattan Beach, CA

Steven A. Escoboza
President and CEO
Hospital Council San Diego and Imperial Counties
San Diego, CA

Terry Glubka, R.N., M.B.A.
CEO
Sutter Solano Medical Center
Vallejo, CA

Marcus Godfrey, R.N.
Clinical nurse manager, ED
Sutter Roseville Medical Center
Roseville, CA

Arthur L. Gruen, M.D., F.A.C.E.P.
President and CEO
EA Health Corp.
San Diego, CA

Max Hockenberry
Senior partner and co-founder
MaxWorthy Consulting Group
Charlotte, NC

Marc Hudock, P.A.-C..
Chief allied medical officer and board member
Valley Emergency Physicians Group, Inc.
Walnut Creek, CA

Paula Jordan, R.N.
Stroke coordinator
St. Agnes Medical Center
Fresno, CA

Sheela Kapre, M.D.
Director, neurology services
San Joaquin General Hospital (AH)
Bakersfield, CA

Catherine Kay, J.D.
Health care attorney
Sherman Oaks, CA

Jim Lott
Executive vice president, policy development and communications
Hospital Association of Southern California
Los Angeles, CA

Frank Maas
Director, emergency service
Providence Little Company of Mary Hospital
Torrance, CA

William D. Melton, M.D.
Director, emergency medicine
Sutter Solano Medical Center
Vallejo, CA

Penny Nichol
Director, regional growth and sales
Sacramento Sierra Region, Sutter Health
Sacramento, CA
Martin E. Ogle, M.D., F.A.C.E.P.
Division vice president
CEP America
Emeryville, CA

Janet O’Leary, R.N.
Trauma program manager
St. John’s Regional Medical Center (CHW)
Oxnard, CA

Leon J. Owens, M.D., A.A.S.T.
CEO
Surgical Affiliates Med. Group, Inc.
Director
Mercy San Juan Trauma Center
Carmichael, CA

Susan Reynolds, M.D.
CEO
Institute for Medical Leadership
Pacific Palisades, CA

Debby Rogers, R.N.
Vice president, quality and emergency services
California Hospital Association
Sacramento, CA

Joe Rogers
Vice president and COO
Redwood Memorial Hospital (SJHS)
Fortuna, CA

Herb Rogove, D.O., F.C.C.M.
Founder
C30 Medical Group
Ojai, CA

Kory Stetina
COO
EA Health Corp.
San Diego, CA

Penny Stroud
Co-founder
MD Ranger, Inc.
Burlingame, CA

Prentice Tom, M.D.
CMO
CEP America
Emeryville, CA

Clark Wells
Director, new business development
Specialists On Call
Westlake, CA

Kenneth Wheat
COO
Desert Regional Medical Center (Tenet)
Palm Springs, CA

Aaron Wolff, R.N., C.E.N.
Manager, performance improvement
Operations Assistants Group
Catholic Healthcare West
San Francisco, CA

Judith Yates
Vice president and COO
Hospital Council, San Diego and Imperial Counties
San Diego, CA
Endnotes


20. 42 U.S.C. Section 13201-7(b)(1); 42 U.S.C. Section 1395nn.


49. Interviews with Dr. Herb Rogove, C30 Medical Group, July 6, 2010 and Dr. Peter Anderson, Fountain Valley Medical Center, July 1, 2010.


66. Interview with Aaron Wolf, CHW, July 8, 2010.


69. Interview with Debby Rogers, R.N., California Hospital Association, June 19, 2010.


81. Ibid.


88. Title 42, CFR 489.20(c)(2) and 489.24(j).


90. Ibid.


92. Correspondence from California Department of Public Health Deputy Director Kathleen Billingsley regarding medical staff regulations and community call in California, dated August 2, 2010; Pollack, Peter. *ED Call: Is Coordinated Care the Solution? Panel Offers Possible Solutions to ED Crisis*. American Academy of Orthopaedic Surgeons, April 2009.

93. Ibid.


