Two organizational frameworks compete in the health care market today: diversification and specialization. Proponents of specialization highlight the efficiency and quality achieved by hospitals that focus on a few specialized services. Proponents of integration and a coordinated approach in the health care marketplace favor organizational diversification, whereby hospitals and medical groups provide care for all aspects of a patient’s health. The Accountable Care Act incorporates both of these frameworks without seeking to reconcile them. It encourages organizational diversification by encouraging Accountable Care Organizations paid on a global basis, and encourages organizational specialization through bundled, episode-of-care payment for specific procedures and service lines.

It is too early to ascertain which of these frameworks will dominate the market in the future. Insights can be obtained, however, by comparing the strategies and structures of leading organizations that embody each framework and compete with one another in the same local market.
Kaiser Permanente

The Kaiser Permanente organization includes a health plan, hospital, and the multi-specialty Permanente Medical Group. Kaiser has over seven million enrollees in California, including 435,000 in Orange County. It offers insurance products through the individual and group markets and has a sizeable managed Medicare enrollment. The 250-bed hospital in Irvine is the referral center for orthopedic surgery for the entire county. Its orthopedic surgeons perform over 5,500 surgeries annually, including 900 total joint replacements.

Individual physicians are salaried employees of the medical group, and their income may be supplemented by small bonuses tied to quality and patient satisfaction metrics. The hospital’s budget covers all non-physician components of an orthopedic case, including the implanted device and other supplies. The Kaiser system is a nonprofit organization whereby all profits are reinvested in the organization; equity and ownership are not shared with the physicians.

Operating Room Process

In 2010 Kaiser Irvine faced increasing wait-times for elective surgery due to a growth in membership and increasing demand due to an aging and more obese population. In response, Kaiser partnered with the medical device firm, DePuy, to redesign the orthopedic program’s protocols.

The re-design was surgeon-initiated but not surgeon-led. OR scrub and circulating nurses, OR technicians, device firm representatives, and other team members have the strongest influence on the rate at which patients are prepared, procedures are conducted, and the rate at which the OR is turned around for the next patient. Each surgeon develops his or her team to promote consistency and reduce the need for re-learning routine processes.

The Kaiser Permanente team developed what it referred to as the “total joint dance” in recognition of the choreography of standardized procedures used in the OR and post-OR processes. The standard two-day length of stay was broken down into hourly segments, and the exact role and timing of antibiotics, pain medications, physical therapy, and patient mobilization now is specified.

Discharge planning begins prior to admission and continues post-surgery based on outcomes and patient preferences. Permanente physicians conduct post-surgical care and patient management at contracting sub-acute, rehabilitation, and skilled nursing facilities, even though the Kaiser system does not own these entities. Patients are not discharged from the hospital without a follow-up appointment scheduled with both the surgeon and with their primary care physician.

Patient Selection and Care

Permanente surgeons were spending considerable portions of their time assessing patient disease severity, functional limitations, willingness to change behavior (e.g., to lose weight), and attitudes
towards surgery. None of these functions is primarily surgical in nature, yet patients were self-presenting in clinic or being referred by primary care physicians without prior triage.

In 2011 the orthopedics department launched the “osteoarthritis care pathway” following the principles of segmentation by stage of disease and patient preferences, non-surgeon leadership, promotion of behavior change, and prevention of disease progression. Clinical pathways were developed for each type of patient, emphasizing the roles of primary care physicians, nurse practitioners, physical therapists, and wellness coaches. The intent was to limit need for surgery through prevention of disease progression and to limit the involvement of surgeons in non-surgical processes. This reflected the lack of fee-for-service reimbursement and the imperative to reduce surgical wait times in the context of increasing health plan enrollment.

The emphasis of the osteoarthritis pathway was on patients at the intermediate stage of osteoarthritis, who were not yet candidates for surgery but who needed pain management, improved function, and the prevention of disease progression. Kaiser modified existing clinical guidelines on drug management, radiography, injection of steroids, exercise and weight loss, referral to bariatric surgery, nutritional counseling, and physical therapy, and standardized the flow of patients through those options and processes.

**Hoag Orthopedic Institute (HOI)**

HOI is the for-profit subsidiary of the nonprofit Hoag Memorial Hospital Presbyterian, which provides comprehensive care to southern Orange County through two hospitals, numerous ambulatory clinics, and affiliated physicians. The 70-bed facility performs 4,300 hip and knee procedures and 12,000 other orthopedic procedures annually.

Hoag seeks to become a regional center for major procedures for which commercially insured patients would be willing to travel, including interventional cardiology, electrophysiology, women’s health, and oncology, as well as orthopedics. Hoag is a leading participant with health plans and self-insured employers in initiatives to develop episode-of-care (EOC) payment, reference priced benefit designs, and narrow network insurance products. HOI represents the most fully developed expression of this regional Center of Excellence strategy for Hoag.

The HOI joint venture structure builds on physician-owned ambulatory surgery centers, which represented the surgeons’ interest in obtaining equity ownership and a share in the profitability of the facilities where they provide care. The physicians are not employed by Hoag but are owners and partners in the surgical medical groups. They are paid for their professional services on a fee-for-service basis, with most patients covered by traditional Medicare or commercial PPO insurance.
Operating Room Process
A primary objective of the HOI founders was to streamline the process of care in order to maximize the number as well as the quality of procedures that can be done per surgeon, per operating room, and per day, and thereby build the infrastructure for growth in referral volume. The HOI operating rooms now handle five joint replacement procedures per day, with peripheral orthopedic procedures done primarily in the affiliated ambulatory centers.

The streamlining of orthopedic surgery and the operating room processes at HOI is achieved partly through the selection of highly-motivated physicians, but also through those surgeons’ acceptance of the facility’s clinical standards and processes. Methods of patient education and preparation prior to surgery, operating room (OR) scheduling and procedure timing, staffing, the role of implant manufacturer representatives in the OR, pain medication protocols, laboratory testing and radiology protocols, patient diet, and physical therapy are standardized. This is a major change in culture for traditionally autonomous orthopedic surgeons. At the HOI facility, surgeons perform post-procedure follow-up with their patients, but much of the post-surgical care is provided by physicians trained in internal medicine and related non-surgical specialties.

HOI has taken over discharge planning functions from the individual physicians as well as from the health plans in the local market. A nurse “navigator” is assigned to each patient for the entire course of care, from pre-admission preparation to post-discharge referral. This facilitates the often-confusing transitions from surgery to sub-acute care, rehabilitation facility, skilled nursing facility, or home care. HOI is paid by Medicare on a the basis of Diagnosis Related Groups and by most commercial insurers on a case rate basis, giving it strong incentives to reduce patients’ length of stay as well as the cost of orthopedic surgical implants.

Patient Selection and Care
HOI is structured to provide care to patients who seek surgery, not to those who suffer from osteoarthritis but who do not need surgery. The decision of whether a particular patient should proceed to surgery reflects both the patient’s preferences and the criteria used by the surgeon in deciding whether the procedure is appropriate. HOI is a joint venture between the hospital and the surgical group, and the hospital does not employ or control the surgeons. HOI needs to promote process standardization while maintaining physician autonomy. The surgeons are highly skilled practitioners, the source of new
patient volume, and equity partners in the facility, and cannot be required to abide by clinical pathways they do not embrace.

The HOI specialty hospital, as an organization, has strong financial incentives and quality reasons to standardize care processes, but it has neither incentive nor cultural authority to standardize the way that the surgeons and referring primary care physicians decide which patients are good surgical candidates. As the facility is paid on a case rate basis and the surgeons via fee-for-service, HOI does not reap a return on any investment in non-surgical care management for chronic illnesses. Therefore, it does not engage in chronic disease management.

**From Specialization to Diversification**

Specialization allowed Hoag Orthopedic Institute to align incentives between the physicians and the hospital, and to streamline the process of care from pre-operative patient preparation, through the operating room, and finally to post-operative patient recovery. However, specialized hospitals are vulnerable to changes in the larger health care market that place a premium on clinical coordination and capitation payment. The expansion of Accountable Care Organizations may shift volume away from specialty hospitals unless they are linked to diversified physician-hospital entities that offer the full range of services.

Consistent with this perspective, Hoag recently merged with St. Joseph of Orange, a large multi-hospital system. St. Joseph traditionally has modeled itself on the Kaiser system, affiliating with a large multispecialty medical group and developing an Accountable Care Organization in collaboration with a large health insurance plan. The combined entity will continue to pursue specialization among service lines; its broader mission will encourage care coordination and be paid on a global capitation basis.

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Conclusion
Diversified health care organizations can take advantage of economies of scale and scope, while specialized facilities capture economies of focus and experience. The experience of Kaiser and Hoag in Orange County highlights the virtue of diversification as the dominant strategy. Although the Accountable Care Act allows for both frameworks, many provisions—such as a ban on physician-owned hospitals—also favor diversification and coordination over specialization and focus.

Even while appreciating the virtues of coordination, it is important to uphold the virtues of specialization. Excessive scale and diversification can lead to bureaucratic inefficiencies. Truly successful health systems will be able to maintain the entrepreneurial spirit of specialized service lines within a larger integrated system.

The online version of this article, along with updated information and services, is available at: content.healthaffairs.org/content/32/5/921.full.html