VIEWPOINT

Disentangling the Role of Health Care Systems in Producing High-Quality Care

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Large health care systems have become a dominant feature of the US health care delivery system. While there is clear agreement that current trends in consolidation into large health care systems drive up health care prices,[1] there is no consensus on how health care systems influence quality of care for patients. Existing evidence is limited, and findings are mixed on the benefits and drawbacks of financially integrated health care delivery systems for population health and patient outcomes.[2-4] In the absence of clear evidence, 2 competing notions drive the national discussion of how health care systems influence patient outcomes. One line of reasoning holds that health care systems will improve quality of care delivered to patients because health care systems can better develop and deploy new models of care, promote evidence-based medicine, and better integrate or coordinate care across settings and health care providers, including clinicians and health care provider organizations (eg, hospitals, clinics, nursing facilities). In contrast, a competing line of reasoning holds that health care systems may in fact worsen quality of care because increased layers of bureaucracy and complexity limit clinicians' autonomy and ability to customize patient care and strand patients in impersonal administrative systems.

We contend that these competing notions of health care systems' impacts exist in part because little work has been done to elucidate the multiple facets that comprise contemporary health care systems, some of which are beneficial and others detrimental to patient outcomes. We highlight 5 major features of health care systems that may influence quality of care: pooled resources, centralization, standardization, interprovider coordination, and cross-practice learning (**Table**). These features have varied and sometimes opposing effects on patient outcomes, likely resulting in the competing narratives espoused about health care systems.

Pooled Resources May Improve Patient Outcomes

Evidence indicates health care providers benefit from engaging in joint purchasing and developing shared resources.[5] By pooling across many physicians and practices, health care systems have more resources than independent health care providers to hire and retain high-quality physicians, weather financial challenges, and invest in initiatives and activities that can improve patient care, such as health information technology, care coordination, or quality improvement programs.

Centralization of Health Care Systems May Impede the Delivery of High-Quality Care

Many contemporary health care systems centralize decision-making, program design, and even personnel rather than disperse it across their sites, which may unintentionally worsen care quality. When systems make decisions centrally, clinicians lose autonomy over parts of their practice, such as the staffing, workflow, or even patient scheduling, resulting in limited ability to customize patient care. Similarly, patients may experience a large health care system as an unwieldy behemoth, encountering difficulties tackling activities such as billing, parking and navigating the physical space, and seeking results and answers to follow-up questions. In addition, when health care systems centralize key functions such as care management rather than embed these roles within practices, physicians are less likely to know and work together with care managers.

Standardization May Facilitate Either Positive or Negative Activities

Health care systems often have great power to standardize, such as creating uniform job descriptions and roles, team configurations, clinical workflows, technology, and processes across sites. Standardization is often discussed as producing positive outcomes, such as standardizing use of evidence-based guidelines or decision support. However, standardization can also produce negative consequences: health care systems may standardize to short appointment times, rigid care team structures, or aggressive physician productivity requirements. Additionally, standardization, such as centralization, may reduce clinicians' autonomy and ability to appropriately adapt clinical care.

Interprovider Coordination May Improve Care

Particularly because health information exchanges have been slower to take off or more cumbersome than many had hoped, health care systems have an advantage in facilitating communication between clinicians across specialties and settings that may improve patient outcomes. Shared medical records, internal messaging systems, and ease of referral and follow-up across settings all can aid clinicians in communicating with their patients' other clinicians. This can aid in coordination, joint problem solving, and efficiency in treatment decision-making, which may translate to better patient outcomes.

Cross-Practice Learning May Aid Innovation

Given that organizational research clearly demonstrates that collaboration between organizations spurs innovation and learning between partners,[6] health care systems are well positioned to facilitate shared learning between their sites, such as through internal quality improvement collaboratives. This learning may improve quality outcomes. Sharing of best practices could include a wide range of materials and activities, such as population-specific outreach materials, patient scheduling workflows, disease-specific follow-up protocols,

Table. System Features and Their Influences on Quality Care

Features and descriptions	Impact	Examples
Financial resources: pooling resources across a larger number of clinicians and hospitals allows greater financial security and investment	Positive	Capacity to develop COVID-19 tests and testing centers Investment in technology, eg, care management platforms, electronic health records, surgical tools Specialized departments or staff, such as quality improvement, human resources, health equity Ability to manage an increasingly complex regulatory and compliance environment Capacity to weather financial uncertainty, allowing greater engagement with risk-based contracting
Centralized control: decisions are made and programs are based at system level rather than hospitals, medical practices, or physicians	Negative	System determines staffing for practices and hospitals, such as number of clinicians, nursing ratios Care management is provided through a central office, rather than embedded in individual practices Practices serving distinct populations required to use systemwide tools and protocols despite potential misfit, eg, safety net practices, pediatrics, geriatrics Clinicians and staff reporting to external managers can disrupt practice microsystem and create silos
Standardization: creating uniform roles or processes across sites	Positive or negative	Positive: Standardizing team roles allows clinicians to fill in across a system's sites Evidence-based care pathways implemented across all sites in a system Negative: Standardizing low nursing ratios in hospitals Rigid care management approaches that do not allow for sufficient patient-specific tailoring Inadequate recognition of differences in populations served at different sites
Interprovider coordination: health care providers can more easily communicate across primary, specialty, and acute care	Positive	Shared electronic health record allows health care providers to access information from other clinicians and hospitals Internal messaging systems ease communication between a patient's clinicians Simplified process for referrals to specialty care within a system
Cross-practice learning: personnel from across the system routinely engage in shared learning	Positive, but largely untapped	Systemwide quality improvement collaboratives Primary care practices jointly developing a diabetes protocol drawing on best practices from high-performing sites Population-specific outreach materials developed by staff at 1 site are shared for use at other sites

and team structure. In addition, sharing of performance data across sites can drive problem solving as well as identification and sharing of best practices. Certainly, structures exist for independent practices to engage in cross-practice learning, but health care systems can better align with shared organizational goals and resources.

These 5 features of systems represent an optimization challenge for health care systems, policy makers, payers, and researchers alike. How do we maximize the benefits of an integrated system while minimizing the drawbacks? What should be done centrally, and what should be left to the autonomy of individual physicians, sites, and hospitals? What organizational structures facilitate and encourage cross-practice learning without disrupting the function of the clinical microsystem?

In addition, the effects of each of these domains are almost certainly mediated by the features of a given health care system. For example, smaller health care systems may experience better interprovider communication because health care providers are more likely to know one another, whereas very large systems with thousands of clinicians may not. Similarly, hospitals or physician practices that are underresourced may disproportionately benefit from pooled resources. Further, each feature of our framework has equity implications, ranging from the likely disproportionate benefit of pooled resources to support quality improvement for health care providers in safety net practices, to the challenges of centralization reducing the use of the population-specific, tailored approaches necessary to advance equity. Understanding these nuances is critical to charting a path to systems that are not only financially strong, but also deliver high-quality care to patients.

Because only limited scientific evidence exists regarding how these features of health systems impact quality,[2-4,7] we are missing critical opportunities to improve quality. Moreover, it would likely be fruitful to similarly disentangle system effects on a variety of outcomes adjacent to quality, such as health care costs, patient experience, health care provider wellness, and health equity. In the meantime, unfettered consolidation will continue to drive up health care costs and prices with no measurable benefit to patient outcomes. By articulating this framework, we challenge researchers, policy makers, and health systems to generate evidence on what works best and optimize US health care systems not only for the financial and regulatory, but for patient outcomes.

ARTICLE INFORMATION

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