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Defining and Measuring Integrated Patient Care: Promoting the Next Frontier in Health Care Delivery

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Abstract

Integration of care is emerging as a central challenge of health care delivery, particularly for patients with multiple, complex chronic conditions. The authors argue that the concept of "integrated patient care" would benefit from further clarification regarding (a) the object of integration and (b) its essential components, particularly when constructing measures. To address these issues, the authors propose a definition of integrated patient care that distinguishes it from integrated delivery organizations, acknowledging that integrated organizational structures and processes may fail to produce integrated patient care. The definition emphasizes patients' central role as active participants in managing their own health by including patient centeredness as a key element of integrated patient care. Measures based on the proposed definition will enable empirical assessment of the potential relationships between the integration of

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organizations, the integration of patient care, and patient outcomes, providing valuable guidance to health systems reformers.

Keywords

integration, coordination, patient centeredness, delivery system reform, integrated patient care

Health care systems face increasing challenges in delivering high-quality care at an acceptable cost (Schoen et al., 2007). The growing prevalence of chronic conditions and complexity of treatment regimens increases the importance of coordinating health care services (Bodenheimer, 2008; Nolte & McKee, 2008). The rapid expansion of medical knowledge and growing specialization of providers increasingly contribute to fragmentation of critical pieces of information among practitioners who share responsibility for a patient's care (Chassin, Galvin, & the National Roundtable on Health Care Quality, 1998; Institute of Medicine, 2001). At the same time, health care providers must recognize and accommodate patients' individual medical needs, social environments, and preferences for care (Institute of Medicine, 2001). In this context, integration is emerging as a central challenge of health care delivery, particularly with respect to patients requiring complex care for multiple chronic conditions.

New Contribution

The concept of "integration" is used in a variety of ways and contexts. However, when used in practice there is often ambiguity regarding two issues: (a) the object of integration and (b) its essential components. First, discussions of integrated health care often implicitly conflate delivery systems and delivery processes with their product: patient care. However, organizations, the processes they use to deliver care, and the care patients receive are all conceptually distinct objects to which the term *integration* can be applied. Integration of organizations and organizational activities may or may not result in integration of the care delivered to patients. We distinguish between these objects of integration and discuss the practical importance of doing so. Second, clinical integration activities have been defined previously as unidimensional, synonymous with care coordination activities. With clearer identification of the object of integration as patient care, however, we believe it is more useful to represent integration as a multidimensional construct, including elements of coordination and patient centeredness.

Consistent with this view, we define *integrated patient care* as "patient care that is coordinated across professionals, facilities, and support systems; continuous over time and between visits; tailored to the patients' needs and preferences; and based on shared responsibility between patient and caregivers for optimizing health." Based on this definition, we present a conceptual framework and principles to guide the measurement of the degree to which patient care is integrated.

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Defining Integrated Patient Care

The Object of Integration

Integration was originally used in organizational theory to describe collaborative activities among differentiated units within an organization that enables them nevertheless to achieve "unity of effort" (Lawrence & Lorsch, 1986). Thompson's (1967) discussion of interdependence furthered this line of thinking about integration in health care (Sofaer, Kreling, & Carmel, 2000) by demarcating three coordinating mechanisms for handling different forms of interdependence within and among organizations, all of which are present in health care. "Standardization" helps pool interdependent individuals or groups that contribute to a common goal, such as when patients receive care from multiple providers. "Planning" supports interdependent groups that perform tasks in sequence, such as when a physician prescribes treatment following laboratory tests. "Mutual adjustment" is required of reciprocally interdependent groups that rely on each other for information and performance of assigned roles to produce a good or service. Clinicians demonstrate mutual adjustment when one adjusts a prescription to avoid a negative interaction with a medication prescribed by another clinician.

Drawing on this pioneering work, health care research has addressed at least four potential objects of integration, categorized recently in a review of evidence on integration and chronic care: functional, organizational, professional, and clinical integration (Nolte & McKee, 2008). Functional integration seeks to coordinate key support functions and activities, such as financial and information management, strategic planning, and quality improvement (Shortell, Gillies, & Anderson, 1996). Organizational integration describes ownership, contractual arrangements, and alliances among health care institutions. Professional integration refers to formal collaboration among health care professionals, within and between institutions. Finally, clinical integration describes organizational activities intended to coordinate patient care services across people, functions, activities, and operating units over time to maximize the value of services delivered to patients (Shortell et al., 1996).

Definitions of integration in the health care literature have often focused on integration of *organizations and organizational activities*, taking these as their objects (see Table 1; Axelsson & Axelsson, 2006; Grone & Garcia-Barbero, 2001; Kodner & Spreeuwenberg, 2002; Niskanen, 2002; Patient Centered Primary Care Collaborative, 2007; Shortell, Gillies, & Anderson, 1994). Other definitions take both organizational activities and patient care as their objects; these definitions implicitly assume that such activities will result in patient care that is itself integrated (Mur-Veeman, Hardy, Steenbergen, & Wistow, 2003; Ouwens, Wollersheim, Hermens, Hulscher, & Grol, 2005).

However, relationships between integration of organizations, organizational activities, and the patient care actually delivered to patients should be empirically verified. Such empirical analysis could determine, for example, whether certain forms of organizational integration primarily meet the needs of providers rather than the needs of their patients.

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Table 1. Sample Definitions of Integration and Integrated Care: Their Context, Objects, and Elements Addressed

Source	Definition	Context of Use	Object	Elements
Lawrence and Lorsch (1967); Axelsson and Axelsson (2006)	*Integration* is the quality of the state of collaboration that exists among departments that are required to achieve unity of effort by the demands of the environment.	Contingency theory of organizations, which recognizes that organizations must adapt to their environment.	Organizational activities	Coordinated
Shortell et al. (1994)	An *integrated or organized delivery system* is a network of organizations that provides or arranges to provide a coordinated continuum of services to a defined population and is willing to be held clinically and fiscally accountable for the outcomes and health status of the population served.	Amidst pressure for health care reform in the United States, health care providers were encouraged to form organized delivery systems to offer more cost-effective care.	Organizations and activities	Coordinated
Grone and Garcia-Barbero (2001)	*Integrated care* is a concept bringing together inputs, delivery, management, and organization of services related to diagnosis, treatment, care, rehabilitation, and health promotion. Integration is a means to improve the services in relation to access, quality, user satisfaction, and efficiency.	WHO European health policy to promote changes in health care services and improvements in health and patient satisfaction.	Organizational activities	Coordinated
Kodner and Spreeuwenberg (2002)	*Integration* is a coherent set of methods and models of the funding, administrative, organizational, service delivery, and clinical levels designed to create connectivity, alignment, and collaboration within and between the cure and care sectors.	Health and social care fields, linking cure and care sector (e.g., "shared care" in the United Kingdom)	Organizations and activities	Coordinated
Niskanen (2002)	*Integrated care* includes the methods and strategies for linking and coordinating the various aspects of care delivered by different care levels (i.e., primary and secondary care).	Finnish perspective of its publicly funded health care system, including social services that support long-term care needs.	Organizational activities	Coordinated

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Table 1. (continued)

Source	Definition	Context of Use	Object	Elements
Patient Centered Primary Care Collaborative (2007)	*Care is coordinated and/or integrated* across all elements of the complex health care system and the patient's community. Care is facilitated by registries, information technology, health information exchange, and other means to assure that patients get the indicated care when and where they need and want it in a culturally and linguistically appropriate manner.	Joint principles (as opposed to a definition) of the Patient-Centered Medical Home promoted by American medical societies.	Organizational activities	Coordinated and patient centered
Mur-Veeman et al. (2003); Ouwens et al. (2005)	*Integrated care* is an organizational process of coordination that seeks to achieve seamless and continuous care, tailored to the patient's needs, and based on a holistic view of the patient.	The Dutch and English health and social care systems crossing boundaries between public, private, and voluntary sectors and short-term and long-term care.	Organizational activities and patient care	Coordinated and patient centered
Billings, Coxson, and Alaszewski (2003)	*Integrated care* is constituted when the requests and needs that the client may experience in various areas are met.	European social welfare policy and research aiming to provide integrated health and social services for older persons.	Patient care	Patient centered
Institute of Medicine (1996)	*Integrated care* encompasses the provision of comprehensive, coordinated, and continuous services that provide a seamless process of care. Integration combines events and information about events occurring in disparate settings, levels of care, and over time, preferably throughout the life span.	Vision for America's health care system.	Patient care	Coordinated

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Some evidence suggests that "integrated delivery systems," that is, structurally integrated organizations capable of providing a continuum of health care services, may provide care that is integrated (Shortell et al., 1994, 1996). A growing body of evidence links integrated delivery systems with better quality and efficiency (Tollen, 2008). Research by Solberg et al. (2009), for example, suggests that structural, financial, and functional integration are correlated with integrated practices, although not with health or financial outcomes. Rodriguez, Glahn, Rogers, and Safran (2009) found that large, integrated medical groups in California performed better than independent practice associations on patient experience of communication and care coordination. Some evidence also suggests that initiatives such as the Chronic Care Model (Wagner et al., 2001) and the Patient-Centered Medical Home (Patient Centered Primary Care Collaborative, 2007), which seek to integrate services within coherent frameworks for organizational design, improve health outcomes (Coleman, Austin, Brach, & Wagner, 2009; Homer et al., 2008).

Existing evidence, however, is limited by a lack of measures for assessing integrated patient care. Prior studies have been largely cross-sectional, based on large physician organizations, and, with the exception of Rodriguez et al. (2009), focused on process measures. Counterexamples have also been reported. For example, attempts to merge physician organizations and hospitals in order to improve the quality and efficiency of care have not necessarily promoted care that is focused on the patient's needs (Burns & Muller, 2008). Similarly, contractual arrangements among independent practitioners, designed in part to promote access to multiple specialties, failed to deliver on the promise of integrated service for patients (Schauffler, McMenamin, Cubanski, & Hanley, 2001; Shenkin, 1995).

To empirically assess the relationship between the integration of organizations, their activities, and patient care requires measures of integration that focus exclusively on the care delivered to patients (Burns & Pauly, 2002; Lee & Wan, 2002; Simoens & Scott, 2005). This exclusive focus on patient care will allow such measures to be agnostic to the degree of integration that characterizes the underlying organizational structures and activities. However, developing such measures also requires a framework that encompasses the relevant components of integration. While some existing definitions of integration take patient care as their object, these definitions may not encompass all measurable, relevant components of integrated patient care (Billings et al., 2003; Institute of Medicine, 1996).

Components of Integrated Patient Care

The term *integration* has frequently been used in health care to describe attempts to achieve better coordination of services. In fact, *integration* and *coordination* are often considered synonymous. However, a definition of integration that takes patient care as its exclusive object implies recognition of the central role of the patient; patient care cannot be measured without reference to a particular patient. We therefore propose that patient centeredness is an essential component of integrated patient care.

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Berwick (2009) recently defined *patient-centered care* as “the experience (to the extent the informed, individual patient desires it) of transparency, individualization, recognition, respect, dignity, and choice in all matters, without exception, related to one’s person, circumstances, and relationships in health care” (p. w560). This definition emphasizes attending to the patient’s preferences and capabilities for self-care, rather than just meeting his or her medical needs, as integral components of patient care. Other definitions of patient centeredness emphasize access, dignity and respect, information sharing, participation, simplification, and coordination as key objectives (Bezold, Peck, Rowley, & Rhea, 2004; Davis, Schoenbaum, & Audet, 2005). Tailoring care to meet the needs and preferences of patients requires that caregivers shift from viewing patients as passive recipients to viewing them as active participants in their care (Rittenhouse & Shortell, 2009).

Most prior definitions have not specifically focused on delivering care that is patient centered in addition to coordinated (exceptions include Billings, et al., 2003; Mur-Veeman et al., 2003; Ouwens et al., 2005; Patient Centered Primary Care Collaborative, 2007), and none identified through our research has addressed engaging patients to take active responsibility for their own care. The challenge in delivering integrated patient care is to provide optimal amounts of both coordination and patient centeredness.

Tension Between Components of Integrated Patient Care

Conceived as the product of coordination and patient centeredness, it is important to note that integrated patient care involves objectives that may be in tension with one another. Systems that promote coordination of care often seek to achieve automation, efficiency, and simplicity, while patient centeredness strives for customization. Thus, an emphasis on coordination can come at the expense of sensitivity to patient preferences and values. For example, an organization that enhances coordination by providing real-time information so that any available clinician can provide “same-day” access may fail to achieve patient centeredness among patients who value continuity with a particular clinician. Similarly, certification criteria for the Patient-Centered Medical Home encourage the adoption of structural capabilities (e.g., electronic health records) that may improve the coordination of care (National Committee for Quality Assurance, 2008). Some have noted, however, that such reliance on practices’ structural capabilities may come at the expense of care that is sensitive to the needs of individual patients (Berenson et al., 2008).

Measuring Integrated Patient Care

Framework for Measuring Integrated Patient Care

Measuring integrated patient care would enable assessment of its relationship with clinical and financial outcomes and comparison of the extent to which delivery systems

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with differing structural configurations succeed in its delivery. In Table 2, we present a framework for measuring integrated patient care for patients with multiple or complex chronic conditions. The framework includes seven dimensions, based on our definition. Five dimensions are related to coordination and two to patient centeredness. We also populate the framework with illustrative survey items.

The first five dimensions of our framework highlight five aspects of coordination. The first form of coordination in our definition of integrated patient care, "patient care that is coordinated across professionals," occurs within a patient care team (defined as the group of practitioners including physicians, nurses, other clinicians, support staff, and administrative personnel who routinely work together to provide medical care for a specified group of patients). Measures of coordination within a patient care team assess the degree to which the care delivered by each team member is consistent with and informed by the care delivered by other team members. Such measures are important for assessing, for example, the extent to which nutritionists and physicians within a clinic are aware of each others' efforts to address weight management and related comorbidities among obese patients (Sidorov & Fitzner, 2006).

The second form of coordination, "patient care that is coordinated . . . across facilities," involves coordination across patient care teams. This form of coordination refers to interactions between patients and practitioners from multiple patient care teams (e.g., primary care providers, specialists, pharmacists, and hospital personnel). Measures of this dimension assess the extent to which the care delivered by each patient care team is consistent with and informed by the care delivered by other teams. Such measures will highlight situations in which communication between care teams is suboptimal (Dunn & Markoff, 2009; Roy et al., 2009).

The third form of coordination is "patient care that is coordinated . . . across support systems." Measures of this dimension of integration assess the degree of coordination between patient care teams and support available through home and community resources. For example, such measures may assess the extent to which patient care team members are knowledgeable about such resources, recommend their use where appropriate, and know about the support that their patients receive from these resources. They will assess the ability of providers to help their patients access resources that support their ability to live with chronic illness (Fisher et al., 2005).

Measures of the fourth form of coordination, "patient care that is continuous over time," assess the extent to which providers are continuously familiar with the patient's medical history. Continuous familiarity includes, but is not limited to, each provider's familiarity with care he or she and others have provided to the patient in the past. Performance on such measures might demonstrate that providers account, for example, for the factors contributing to previous hospitalizations and the treatments at discharge when they update treatment plans.

Fifth, measures focusing on "patient care that is continuous between visits" assess the extent to which patients receive proactive outreach including, for example, phone calls and home visits, to ensure appropriate follow-up. Such measures also assess responsiveness to incoming requests from patients, and they may identify gaps in care

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Table 2. Framework for Measuring Integrated Patient Care

Construct	Description	Sample Item
1. Coordinated within care team	The individual providers (which may include physicians, nurses, other clinicians, support staff, and administrative personnel who routinely work together to provide medical care for a specified group of patients, hereafter the "care team") deliver consistent and informed patient care and administrative services for individual patients, regardless of the care team member providing them.	In the past 6 months, how often did your doctor or staff in your doctor's office ask you about medicines you were prescribed by other doctors?
2. Coordinated across care teams	All care teams that interact with patients, including specialists, hospital personnel, and pharmacies and deliver consistent and informed patient care and administrative services, regardless of the care team providing them.	In general, do you think the doctors that you communicate with to each other about your care?
3. Coordinated between care teams and community resources	Care teams consider and coordinate support for patients by other teams offered in the community (e.g., Meals on Wheels).	Did your doctor or staff in your doctor's office talk to you about resources available in your neighborhood to support you in managing your health conditions?
4. Continuous familiarity with patient over time	Clinical care team members are familiar with the patient's past medical condition and treatments; administrative care team members are familiar with patient's payment history and needs.	How often do you think other health care providers at your doctor's clinic really understood all of your important medical information?
5. Continuous proactive and responsive action between visits	Care team members reach out and respond to patients between visits; patients can access care and information 24/7.	In the past 6 months, has your doctor or staff in your doctor's office contacted you to ask about your condition?
6. Patient centered	Care team members design care to meet patients' (also family members and other informal caregivers') needs and preferences; processes enhance patients' engagement in self-management.	Thinking back about the care you received in the past 6 months, how often do you think your doctor understood the things that really matter to you about your health care?
7. Shared responsibility	Both the patient and his or her family and care team members are responsible for the provision of care, maintenance of good health, and management of financial resources.	In the past 6 months, did you ever leave your doctor's office confused about what to do next to manage your health conditions?

Note: Patient experience survey instruments reviewed in developing sample survey items include the following: Ambulatory Care Experiences Survey, D. G. Safran, New England Medical Center Hospitals, Inc., and K. Coltin, M. Karp, Massachusetts Health Quality Partners, Inc., 2002; The 2008 Commonwealth Fund International Health Policy Survey, Harris Interactive Inc., 2008; Communication Assessment Tool, Gregory Makoul, 2004; Primary Care Assessment Survey; D. G. Safran, The Health Institute, New England Medical Center, 1994-1998; Consumer Assessment of Healthcare Providers and Systems Survey 4.0, Agency for Healthcare Research and Quality, 2007 (available at https://www.cahps.ahrq.gov/default.asp); Patient Assessment of Chronic Illness Care Group Health Version 8/13/03, MacColl Institute for Healthcare Innovation, Group Health Cooperative, 2004; Primary Care Assessment Tool, Barbara Starfield, 1998 (available at http://www.jhsph.edu/hao/pcpc/pca_tools.htm).

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following patients' office-based interactions that can affect adherence with providers' recommendations and prescriptions.

The framework also includes two dimensions that explicitly focus on patient centeredness. Measures of the first form of patient centeredness, "patient care that is . . . tailored to the patients' needs and preferences," assess the extent to which providers consider the needs, preferences, values, and capabilities of the patient, family members, and other caregivers. The second form of patient centeredness is "patient care that is . . . based on shared responsibility between patient and caregivers for optimizing health." Measures of this dimension assess the extent to which the patient, family members, and other caregivers are informed and engaged by providers in making health care decisions, providing care, maintaining health, and managing financial resources. Such measures could expose deficiencies that may affect long-term outcomes (Fremont et al., 2001; Wasson, Johnson, Benjamin, Phillips, & MacKenzie, 2006).

We suggest that measures of these seven dimensions of coordination and patient centeredness will provide a robust description of integrated patient care for patients with multiple or complex chronic conditions. These patients face well-documented challenges when coping with complex and fragmented care. However, the issues involved with integrating care of persons with chronic conditions, who likely have established relationships with a variety of providers and services, differ substantially from those involved in delivering care for patients with one provider or with a team of providers put together once for purposes of addressing an acute patient need. Thus, consideration of modifications to the measurement framework would be required for application to other groups of patients.

This framework for integrated patient care measurement rests on several assumptions. First, we assume that integrated patient care (as well as both of its primary dimensions, coordination and patient centeredness) is a multidimensional construct. From these dimensions, a single composite measure of integrated patient care might be constructed and used to understand the extent to which integrated organizations deliver patient care that is more or less integrated overall. However, there may be continued utility in measuring each dimension of integrated patient care separately to maximize our understanding of the interrelationships between these dimensions and to guide efforts to improve the integration of patient care.

Second, we assume that measures can assess integration without making explicit reference to the particular structural forms of care delivery. By separating the structural form of delivery systems from our measurement framework, we do not mean to imply that tools that measure structural integration do not provide essential information. Rather, we suggest that a complementary tool—one that makes no assumptions about the optimal form of structural integration—would be beneficial, particularly in assessing the impact of delivery system integration on patient care.

Finally, the framework allows for multiple perspectives and data sources but emphasizes the patient's perspective, because assessing whether integrated care is also patient centered may best be determined using information obtained from patients. After all, only patients know the extent to which they feel distance, helplessness,

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discontinuity, and anonymity as a result of the care they have received (Berwick, 2009). Only patients know whether their preferences and values have been fully considered and whether they have received sufficient information and opportunity to participate in their care. To measure integrated patient care without assessing patient experience would be like measuring the effectiveness of surgery by analyzing the technical proficiency of the surgeon and operating room staff without measuring the outcomes for the patient.

Nevertheless, measurement of integrated patient care need not be limited to patient reports. Providers, caregivers, managers, and insurers also observe distinct aspects of patient care. Each perspective may contribute important information. For example, a patient's primary physician will know whether necessary clinical communications about a patient were received from a specialist, and an administrative record will document whether billing was coordinated. In addition, a patient will not know whether a specialist's failure to ask him about allergies was because the patient's primary care physician already communicated this information or because the specialist failed to assess the patient's allergies. However, routine data collection from many sources may be impractical.

Developing Measures of Integrated Patient Care From the Patients' Perspective

Developing a new survey to measure integrated patient care from the patient's perspective would involve creating an instrument that assesses each dimension of such care. While previous surveys address some aspects of elements in our proposed framework, none do so completely and comprehensively. A new survey therefore could combine items adapted from existing patient experience surveys with newly crafted items addressing areas not previously tested but deemed important based on recommendations from experts in the care of chronically ill patients. As with any new survey, new instruments should undergo cognitive testing to ensure question clarity, psychometric assessment to confirm that empirically derived factors are congruent with the proposed dimensions (Brown, 2006), and refinement to reduce survey length.

Ideally, the validity of the instrument would be established by comparison to a gold standard for integrated patient care. Lacking a definitive standard in this case, the best alternative may be to assess the degree of agreement between patient survey–based measures of integrated patient care and alternative measures of integrated patient care (e.g., measures based on surveys of health care providers or medical record review). Agreement among measures would lend convergent validity to the patient survey. An instrument with sufficient face as well as convergent validity would reduce the continued need for alternative measurement methods and data sources.

Implications for Research, Policy, and Practice

Based on an analysis of existing definitions and measures, we present a framework for measuring "integrated patient care" that includes dimensions related to both coordination

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and patient centeredness. We also highlight the need to develop tools for capturing the patient's perspective on integration, for example, through a patient survey. A short and reliable survey designed to assess integrated patient care from the patient's perspective not only would enable researchers to better examine the system-level correlates of integrated patient care but also would permit evaluation of the association between higher levels of integrated patient care and the quality and cost-efficiency of care. Investigators could also explore a variety of interaction effects, including differences in the impact of integration on patient outcomes, depending on patient characteristics and behaviors.

The potential to measure integrated patient care from the patient's perspective raises a host of questions related to this research agenda that are also worthy of consideration: Do "integrated delivery systems" (e.g., Kaiser Permanente and the Veterans Health Administration) and large physician networks (e.g., Harvard-Vanguard) provide better integration of patient care (more coordinated and patient centered) than nonintegrated delivery systems? What can providers and organizations do to improve the integration of patient care? How could delivery systems that provide highly integrated patient care transfer their knowledge and experience in delivering highly integrated patient care to other organizations? Which structural capabilities (e.g., health information technology, communication strategies, team approach, scale, affiliation) constitute the minimum requirement for providing integrated patient care? Is more integrated patient care associated with better technical quality of care (as assessed by standardized quality measures)? Is more integrated patient care related to better financial performance, including measures such as profitability, solvency, and financial stability? How could measures of integrated patient care from multiple perspectives be combined to provide a more complete understanding of the performance of health care delivery systems?

The answers to these questions, in turn, should stimulate discussion about whether and how to foster greater integration of patient care. For example, information on the structural correlates of integrated patient care and associated outcomes may allow policy makers and payers to refine financial incentives and other strategic and operational initiatives to promote integrated patient care. Theory and evidence from balanced scorecard (Inamdar, Kaplan, & Bower, 2002; Kaplan & Norton, 1996) and performance dashboard (Cleverley & Cleverley, 2005) approaches suggest that greater alignment of other indicators with integrated patient care would follow its measurement and tracking.

The need to support better integrated patient care has been recognized in a number of emerging payment reforms (Guterman, Davis, Schoenbaum, & Shih, 2009). For example, the Medicare Payment Advisory Commission has recommended that hospitals be allowed to reward physicians financially for helping reduce readmission rates and that CMS test a pilot program for bundling payments for care episodes for selected conditions to reward coordination across providers and over time (Epstein, 2009). In Massachusetts, the Health Quality and Cost Containment Council has recently recommended a major shift in payment for health care, away from fee for service and toward

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prospective, global payments to accountable care organizations that would offer substantial incentives to provide patient-centered, multidisciplinary integrated care. The research agenda described above would permit policy makers to determine (a) whether differential payment to providers that deliver integrated patient care is justified and (b) whether less targeted interventions such as episode-based payment lead to integration. Such research would also provide valuable feedback and direction for organizational leaders regarding their efforts to deliver integrated patient care, as perceived by patients.

In clinical practice, delivering integrated patient care is an ideal. Most health care delivery and payment systems are, however, not designed to achieve integrated patient care. Initiatives to strengthen primary care, such as the Patient-Centered Medical Home demonstrations, and to improve coordination and quality of care for patients with chronic diseases, as proposed in the Chronic Care Model, offer potential to leverage significant change toward more integrated health care. However, substantial investment will be required by most practices to implement those changes, and if payment systems lag behind, practitioners will have insufficient incentive to expend the necessary resources. Defining the concept of integrated patient care and measuring integration from the patient's perspective provide opportunities for health care practitioners to observe the extent to which they accomplish what they ultimately strive to do: improve the health of their patients through well-orchestrated, considerate, and humane interventions.

Authors' Note

The views expressed in this article are those of the authors and not necessarily those of the individuals or organizations that contributed to its development.

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