

Research Article

The Need for Leadership, Information, Incentives, Patient Engagement, Primary Care and Proactive Care: Perspectives on Integrated Care

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Abstract

Purpose: As healthcare providers in the U.S. merge into integrated systems with the goal of providing more coordinated and cost-effective care, the question arises of how to define and evaluate integrated patient care. As efforts of various organizational models are underway to improve value-based care, this study investigates the following questions: what do health care providers and health system leaders identify as the most important elements of integration and coordinated care, and what are some facilitators and barriers to achieving them?

Theory and Methods: Nineteen providers and health system leaders participated in interviews and written surveys during which they were questioned about coordinated and integrated patient care. Interviews were transcribed and analyzed for thematic content, and such concepts were correlated with a recently proposed conceptual model of integrated care. Brief survey data was analyzed to further describe and triangulate the findings.

Results: Providers and health care leaders had varied but often overlapping definitions about integrated care. Recurring themes drawn from the interviews were often reflected within a proposed framework of integrated care with lessons that may call for further elaborations of the existing constructs. To move toward improved integrated care, participants particularly emphasized proper alignment of financial incentives and accountability, a robust primary care system, and infrastructure to promote seamless communication and manage populations.

Conclusion: The informed experiences of providers and health administrators may provide valuable lessons that help guide the development of improved and validated metrics for evaluating coordinated and integrated care, and ensure that such organizational and policy changes translate to sustainable and high-quality patient care.

Keywords: Integrated care, Coordination of care, Accountable care organization, Patient centered medical home, Medical neighborhood

Introduction

A 2011 survey by the Commonwealth Fund showed that more than 7 of 10 adults believe the U.S. health care system needs “fundamental change or complete rebuilding [1]”. Poor patient and provider satisfaction, problems of redundancy, avoidable complications, and high costs have led to a movement to reform US health care, including the enactment of the Patient Protection and Affordable Care Act (PPACA) in 2010. While expansion of health care coverage is one important goal, health reform is also demanding sweeping changes in how health care is organized and delivered. One key objective of system reform is achieving greater health care integration. Integration of health services is viewed as an important strategy for achieving patient-centered care and ameliorating patients’ chaotic experience of their health care journey [2], and for achieving more effective and efficient health care delivery [3]. Several policy strategies have been advanced in the US to promote health care integration. Accountable Care Organizations (ACOs) align physicians with hospitals and other components of the health care system and provide incentives for

improving quality and controlling costs [4-6]. Advocates of ACOs believe that this approach may achieving some of the organizational advantages of group-model HMOs such as Kaiser Permanente, without the complete degree of structural, vertical integration that characterizes traditional HMOs. Health reform has also emphasized patient-centered medical homes (PCMH) as a hub of quality primary care to enhance care coordination and communication [7,8]. This notion of a medical home has expanded to the concept of a medical neighborhood, a term coined by Fisher to describe a constellation of well-coordinated services, providers, and organizations in a health system that in addition to primary care medical homes, consists of specialists, emergency facilities, inpatient services, home care, pharmacies, and other components [9]. Nations other than the US are also contending with the need for better care integration and implementing strategies such as colocation of services and bridging of ambulatory and hospital sectors [10].

A key question for the field is whether these organizational reforms will truly achieve the functional performance necessary to accomplish

Table 1: Conceptual Framework of Integrated Care Based on Singer et al.

Construct	Brief Description
Coordination within care team	Individual providers deliver consistent care regardless of which care team member is providing care
Coordination across care teams	All care teams, such as specialists and pharmacists, deliver consistent care, regardless of team
Coordination between care teams and community resources	Care teams consider and coordinate support for patients by other teams in the community
Continuous familiarity with patient over time	Care team members are familiar with the treatment, medical conditions and payment needs
Continuous proactive and responsive action between visits	Care team members respond to patients between visits
Patient centered	Care team members create care to meet patients' needs and preferences and promote self-management
Shared responsibility	Care team and patient both are responsible for promoting health and managing financial resources

Table 2: Written Survey Sample Questions.

How often do you think your patients have difficulty paying for medications or other out-of-pocket costs?
How often do you think your patients have difficulty getting specialized diagnostic tests?
How often do you think your patients experience long waiting times to see a specialist?
How often do you think your patients experience long waiting times to receive treatment after a diagnosis?
What proportion of your patients who request a same- or next-day appointment can get one?
Does your practice have an arrangement where patients can see a doctor or nurse if needed when the practice is closed (after-hours) without going to the hospital emergency department?
Other than doctors, does your practice include any other health care providers (e.g. nurses, nurse practitioners, physician assistants, medical assistants, or pharmacists) who share responsibility for managing patient care?
Do any of your other staff members help manage patient care in the following ways: call patients to check on medications, symptoms, or help coordinate care in-between visits? Execute standing orders for medication refills, ordering tests, or delivering routing preventive services? Educate patients about managing their own care? Counsel patients on exercise, nutrition and how to stay healthy?
Is your practice part of a network of other practices that share resources for managing patient care?
When your patient has been seen by a specialist, how often does the following occur: You receive a report back from the specialist with all relevant health information; the information you receive is timely (that is, available when needed)
After your patient has been discharged from the hospital, on average, how long does it take before their first appointment is scheduled?
Do you use electronic patient medical records in your practice (not including billing systems)?
Do you use: electronic ordering of laboratory tests; electronic access to your patients' laboratory test results, electronic alerts about a potential problem with drug dose or drug interaction; electronic entry of clinical notes, including medical history and follow-up notes; electronic prescribing of medication?
How often does your practice communicate with patients by email for clinical or administrative purposes?
With the patient medical records you currently have, how easy would it be for you (or staff in your practice) to generate the following information about your patients: List of patients by diagnosis; list of patients by lab result; list of patients who are due or overdue for tests or preventive care; list of all medications taken by an individual patient (including those that may be prescribed by other doctors)?
How much of a problem, if any, are any of the following: shortage of primary care physicians where you practice; amount of time you or your staff spend on administrative issues related to insurance or claiming payments; amount of time you or your staff spend on reporting clinical information or meeting regulatory requirements; amount of time you or your staff spend getting patients needed medications or treatments because of coverage restrictions; amount of time you spend coordinating care for your patients?
What percentage of all your face-to-face patient visits during the past week do you think could have been handled over the phone or by email?

the triple aim of better patient experience, better health outcomes, and more affordable care [11]. Designing care models that will function well in practice requires an understanding of the perspectives and experiences of patients and clinicians about the elements that make for successful care integration and the facilitators and barriers to integration. In a previous qualitative study, we investigated patients' experiences of integrated care. That study validated a conceptual framework of the functional domains of care integration and affirmed the importance that patients place on all members of the care team "being on the same page [10]". In this article, we extend that work by exploring the perspectives of practicing physicians and health care administrators. The study's aims were to explore physicians' and administrators' definitions of integrated and coordinated care and their perspectives on the facilitators and barriers to achieving functional integration in a qualitative study.

Theory and Methods

Using domains proposed in the conceptual framework of

integrated care by Singer et al (Table 1), we conducted a qualitative study through semi-structured interview to explore each of these domains. To further explore the thematic findings, we supplemented our qualitative data collection with a brief written survey. The semi-structured interviews were conducted with a series of open-ended questions, facilitated by interviewers trained in the use of qualitative interview techniques. The semi-structured interviews asked participants about their definitions of integrated and coordinated care and examples of when the system seemed to be working well or not working well for patients, how information should be shared, and how providers should work together, adapted from published surveys of providers about coordinated care (Table 2) [12-15]. The written survey involved 20-questions based on the same survey items to reflect provider experiences with different aspects of patient care. The survey questions were selected as a subset most relevant to providers' views of integrated care.

Our sample included nineteen participants, consisting of fifteen

Table 3: Domains and Subdomains with Sample Quotes from Semi-structured Interviews.

DOMAINS	Subdomain (Interview Discussions)	Example Quotes from Interview Participants
Coordination within care team	Care plans shared via medication lists, portable medical histories, and with other providers and staff Information clearly communicated without <u>duplicated, conflicting, or repeated</u> sources	<i>"I think the teams should include everyone who participates in the care of the patient. And that's not always feasible. And it's not like you're necessarily all going to be in the same place at the same time kind of team. It may be a little more virtual than physical, depending on the setting and circumstances. And this is what we haven't done a good job in, is maximizing the participation of every person on the team."</i> [Male, Family Physician, Hospital Executive]
Coordination across care team	Entire team assist with follow-up appointments, tests, and referrals at the primary clinic and with other sites of care Dialogue across care providers to provide a consistent message about care plans, medications, and test results without <u>duplication and conflicting</u> information	<i>"Coordinators that can help make sure, they'll keep track of the referred patients and make sure that their referrals are getting back, the reports are getting back."</i> [Male, Family Physician, Private Practice] <i>"It was that mindset that we did our things and then sent them out at the other end... but that's not there."</i> [Male, Physician, Private Hospital CEO]
Coordination between care teams and community resources	Communication between providers and other community caregivers adds to the patient's care plan and support systems Ongoing feedback from community provides greater health information to health teams and vice versa	<i>"The intervention is all about coaching patients so that they understand their health problems, their medication list and red flags for their conditions. And the idea is that a coach visits the patient while they're in the hospital, enrolls them, talks to them about this stuff. And then within 48 hours after they're discharged they visit the patient at home. And then there's two follow-up calls within the first month. And that's the intervention...[someone] whose job entirely is making sure that we're seeing the right patient, in the right place, in the right time, with the right treatment... So the job is literally to go across the silos and bring people together."</i> [Female, Physician, Public Hospital CEO]
Continuous familiarity with patient over time	Information available throughout site of usual source of care, with other specialists, pharmacy, emergency department, inpatient teams about <u>medical history, care plan</u> and <u>medication history</u>	<i>"You can share information but if the information is not iterative,...or accurate, or if it's not relevant, then just the sharing of information is not sufficient."</i> [Male, Specialist, Physician Executive, County Hospital System]
Continuous proactive and responsive action between visits	Appointments, follow-up, tests, and insurance <u>questions</u> without significant barriers or delay over <u>email, phone or health portals</u> Address all patients perceived needs for their health or health education	<i>"a combination of being available for access to services when you're sick, having prevention services available, but also doing outreach to find people."</i> [Male, Internist, Clinic Medical Director] <i>"What we fall down on is the ability to identify the unmet need, that doesn't express itself, so the diabetic who hasn't been in in six months, who's not complying with medications and hasn't had a hemoglobin A1C tested."</i> [Male, Internist, Private Practice]
Patient-centered care	Focus on the patient experience of care that extends beyond regular doctor's office hours and setting	<i>"What is the patient's problem, what is the patient's needs, what needs to happen, what are the recommendations, who's going to carry it out, who's going to provide the optimal care for a patient at the right time."</i> [Male, Family physician, Integrated delivery system]
Shared responsibility	Aligned incentives Accountability and oversight resides with the <u>healthcare providers, financial fiduciary</u> and the patient	<i>"A set of rules for engagement and accountability that sits on top of a set of processes of care, that are defined, so that everybody sees what they are and they're well developed... there's a greater degree of upfront communication to patients about how this episode of healthcare or this path of healthcare is going to happen, so that, one, both their expectations can be realistic, and then it's an additional incentive for us to hold ourselves to those expectations."</i> [Male, Internist, Private Hospital Medical Director]

physicians and four health system administrators. Physicians were recruited from a practice-based research network of community-based primary care clinicians, the San Francisco Bay Area Collaborative Research Network. We used a convenience sampling approach to identify physicians and health administrators to invite to participate in the study. Physicians and administrators were contacted by email or telephone to request their participation in an interview, to be scheduled in person or by phone at a time convenient to the participant. Interviews were conducted, transcribed, and reviewed by the interviewer (K.W.). Physicians and administrators were recruited until theme saturation was achieved. The UCSF Institutional Review Boards approved the study protocol.

Two research team members (K.W. and J.C.) independently analyzed each transcript using qualitative content-analysis methods to identify meaningful quotes. Atlas.ti software version 5.2 (Atlas.ti Scientific Software Development, Berlin, Germany) was used for data management and analysis. Reviewers identified recurring concepts of integrated care, which were assembled into larger themes and signified by codes to label representative quotations. Through a

recursive analytical process of reading and coding data, we identified themes in common with those reflected in Singer's framework for measuring integrated patient care. Three investigators (K.W., J.C., and K.G.) then reviewed the themes for clarity and relevance. Survey results were descriptively summarized in Excel and qualitatively compared to the interview findings below.

Results

Over half (58%) of the nineteen participants were female and the majority of participants were between the ages of 50-64 years. Out of the 19 participants, 74% were physicians. We also interviewed 4 non-physician clinicians (ie RNs, PA) and 1 non-provider. The majority was in healthcare executive roles (68%) for more than 50% time and the other participants were practicing physicians for the majority of their time.

Nearly all agreed that fundamental changes were needed to make health care systems work better. At the same time, the overall sentiment of the changing health care landscape was optimistic, as 63% of participants believed that the quality of medical care

Table 4: Barriers and Facilitators to Integrated Care.

Construct	Facilitator	Barrier
Coordination within care team	Electronic Systems: Medical Record Specialists understand the role of the PCP Medical Homes centered around primary care Increased supply of primary care physicians Working with case managers, coordinators and health coaches	Shortage and lack of primary care workforce Communication gaps between providers
Coordination across care teams	Electronic Systems: Medical Record, e-prescribing, robust IT PCPs understand the role of the specialists Increased face-to-face and electronic communication between primary care physician and other providers, specialists, hospitalists, emergency departments, mental health	Lack of access to specialty care Communication gaps between providers Poorly integrated Pharmacy data Fragmentation in the emergency care setting Inadequate ancillary services, such as PT, OT, rehab
Coordination between care teams and community resources	Electronic Systems: Registries for population management Community Oriented Primary Care	Gaps in healthcare delivery
Continuous familiarity with patient over time	Electronic Systems: EMR Patients linked with a primary care medical home	Duplication, overuse, wasted time with documents and approvals Lack of patient "ownership" of their health data
Continuous proactive and responsive action between visits	Systems to reach out to those due for preventive and chronic disease management Providing timely access to care Reaching out for post-discharge time windows Providing home visits Care team members respond to patients between visits	
Patient centered	Electronic Systems: patient portals, portable medical record, Care team members create care to meet patients needs and preferences and promote self-management Working with patient advisory boards Using patient surveys Improving convenience according to patient needs and preferences	Lack of customer service model
Shared responsibility	Electronic Systems: performance improvement, Care team and patient both are responsible for promoting health and managing financial resources Strong organizational leadership, management and adequate resources Aligning incentives (financial, quality and accountability)	Poor payment and incentive structures, based on "sick care model" Lack of transparency in cost of care to patients Lack of leadership and management experience among clinicians

throughout health care systems has improved from what it was three years ago, 38% felt it was about the same, and none felt it was worse.

Understanding the terms "Integrated Care" and "Coordinated Care"

Most participants related the concepts of integrated care and coordinated care to themes involving communication between providers and seamless, free-flowing transitions of care. Although many participants equated integrated care with coordinated care, some found them to be distinct though related concepts, with integration representing a step beyond coordination. One participant stated, "Coordinated is just to make sure when I toss the ball to you that you're holding your hands up and you're going to catch it. But integrated is when you and I work together on how we're going to handle the ball" (Female, Public Health, County Healthcare Executive). One stated: "I conceive [integration] as [on] a higher level. Coordination is a step toward integration...and a necessary step, a necessary part of integration, but I see real integration being above just coordination" (Male, Primary Care Physician, Private Integrated Delivery System).

Integration was defined by one participant by its historical, structural definition: "Fully integrated, as in a vertically-integrated healthcare delivery system, means that insurance company and the delivery system and the electronic record and the demographics and the billing and all those things are all part of the same system, which is a pretty high-level of integration" (Male, Specialist, Physician Executive, County Hospital System). Other participants articulated the view that integrated care was a core functional attribute of primary

care: "If you have a primary care physician who is the agent, advocate and kind of case manager of that person, who knows them well and the family, social, economic, psychological aspects of that patient, including their cultural background, that person can better direct, hopefully understand, anticipate expectations, and deliver their needs better than one that is driven by specialty care. That helps to drive integrated care with ancillary specialty and urgent care services" (Female, Primary Care Physician, Community Health Center). To one physician, the concept of integrated care elicited a specific modality of care involving complementary and alternative methods—similar to the responses of some patients in our prior study who merged the concepts of integrated and integrative care [10].

Themes describing integrated patient care

Although the Singer et al framework was developed aptly with an emphasis on the patient perspective, providers and health administrators indicated that the framework resonated with their perspectives and experiences. Below and in Table 3, we describe the specific themes that emerged, organized by the domains of the Singer framework.

Theme 1: Coordination within care team: Most participants felt that care teams functioned best when centered on primary care and when incentives were aligned to foster a culture of shared responsibility within the care team. Some stated that it was important that coordination within a care team involved appropriate stratification of patient needs and ensuring that the full scope of care was not just contingent upon one physician. Some used examples of utilizing nurses and nurse practitioners to triage basic complaints,

health coaches to educate patients, and case managers to assist a few high-utilizing patients avoid the emergency department. Nearly all participants felt strongly that an important means to improving coordination within the care team was through the use of an electronic medical record to reduce errors, track population health performance metrics such as blood pressure or vaccinations, and standardize care.

Theme 2: Coordination across care teams: The need for improved communication across care teams was a prominent theme. Participants emphasized the importance of two-way communication between hospitalists and primary care providers – a system in which hospitalists can access outpatient records as fluidly as PCPs can access hospitalist records. The importance of communication between the emergency department and the PCP was also highlighted, such as through real-time notices to the PCP, a discharge note, and the ability to book appointments directly to the patient’s primary physician. Finally, the need for mental health integration with primary care was mentioned often; since in most cases, behavioral health notes are not available to primary care providers due to HIPAA regulations, this is a common barrier to coordination of services. One provider proposed the “visible behavioral medicine note” to improve mental health care communication to the patient’s PCP.

More than 50% of participants spoke of the need for a robust integrated electronic health record to improve communication between providers across care teams. At the same time, many emphasized the need to consider that EHR was just a means to an end: “You can share information but if the information is not iterative or accurate, or if it’s not relevant, then just sharing of information is not sufficient” (Male, Specialist, Physician Executive, and County Hospital System). Many promoted electronic communication between the primary care provider and specialist through informal means such as e-mail (“curbside consults”) and a formal e-referral system for back and forth communication between primary and specialty provider. Some also suggested feedback from the physical or occupational therapist back to the PCP, and even a chat room where all providers can interact dynamically in a way that is transparent to all members of the care team.

Involvement of the pharmacy was another potential area of integration discussed within this domain. Many providers felt that pharmacists could help manage and support chronic care and that problems arose out of this deficiency e.g., the lack of a “feedback loop” or difficulty of getting information back to the provider on whether or not a prescription is filled or a patient is adherent with medications.

Theme 3: Coordination between care teams and community resources: Some providers discussed that coordinated care also meant connecting patients to community resources, such as needs around transportation, care management, language services, etc. One provider suggested comprehensive language services integrated directly into patient care for patients with limited English proficiency, such as through language-specific modules where everyone on a team including physicians, nurses, medical assistants, health educators, and diabetic educators were all equipped with bilingual capabilities. Others suggested interpreter services, translated materials, and fully translated prescription bottles.

Theme 4: Continuous familiarity with patient over time: Most providers emphasized that successful integrated and coordinated care

is unlikely without a well-organized system of primary care because a primary care provider is necessary for continued familiarity with a patient over time. This enables a provider to be responsible for care transitions, to provide lifelong care and to cross disciplines or silos of specialization. One participant described the challenges and frustrations for some patients that must navigate the health care system without a primary care provider: “[Patients] have just been to a gazillion specialists and no one’s looked at the big picture” (Female, Integrative Medicine, Private Practice). Another emphasized the importance of creating a culture and system in which primary care was recognized by all members, including specialists, as the medical home for patients.

Theme 5: Continuous proactive and responsive action between visits: Patient outreach and education were brought up as important elements of proactive and responsive between patient visits. One participant lauded a system that could be “a combination of being available for access to services when you’re sick, having prevention services available, but also doing outreach to find people” (Female, Public Health, Hospital CEO). Some suggested ways to achieve this through active preventive health reminders, e.g., phone calls to remind patients to get a mammogram, a PAP smear, blood test, etc. One identified this lack as a weakness of some systems: “What we fall down on is the ability to identify the unmet need that doesn’t express itself, [such as] the diabetic who hasn’t been in in six months, who’s not complying with medications and hasn’t had a hemoglobin A1C tested” (Male, Internist, Private Practice). Others felt that one way of being proactive was by focusing on the highest needs groups, even if they made up a small minority. Finally, patient portals were suggested as ways to interact with patients between clinic visits – e.g., a built-in patient portal that allowed for patient education by linking directly to vetted medical education sites.

One provider worked in a system that sought to improve closer follow-up after discharge from the hospital: “We have an agreement with our hospital that if any of our patients leave the hospital, within 48 hours they get a telephone visit with us, so that we have fairly rapid contact with the patient” (Male, Internist, Integrated Delivery System). Another lamented the inappropriate use of emergency rooms due to the lack of extending clinic hours while someone else shared a successful example of open-access scheduling dropping their emergency room utilization by 50% among their patients. Team-based care such as utilizing committed case managers to keep track of referred patients to ensure that referrals were getting back was considered one way to improve proactive action. Finally, home visits were also suggested as ways to work with families to prevent hospital admissions.

Theme 6: Patient centeredness: Participants spoke often of the need for patient-centeredness. A commonly suggested tool was patient advisory boards. One provider stated: “We’ve aggressively pursued the strategy of including patients and family members in our improvement work, which has helped us with a lot of sense-making in terms of what the priority should be” (Female, Public Health, Hospital CEO). This provider suggested a two-prong approach to achieving true patient-centered care: “One is involving the patients in everything that includes executive decisions. And the other is a relentless pursuit of quality. And I think that if you keep two things

there, that then sort of dictates the way you use all the grand tools that you have available too” (Female, Nurse, Hospital CEO).

Many spoke of improving convenience and customer service as a key component to patient-centeredness. One provider stated that a patient-centered practice is “built around patient convenience, patient need, and informed decision-making from the patient’s perspective” (Male, Family Physician, Private Practice). One example of improving convenience was the improvement of easing appointment scheduling through open-access scheduling, also referred to as same-day scheduling.

Finally, one provider stated it was important to remember to make room for customizing to patient needs and preferences even while developing more automated, integrated care processes: Patient-centeredness is “putting the patient in the center, where they may not represent the average patient – understanding that care is not algorithmic, that a patient may require, for example, a much smaller dose of medication than the average person, and that may be what works for them” (Male, Family Physician, Hospital Executive).

Theme 7: Shared responsibility: The theme of shared responsibility involves both the patient and his or her family and care team as responsible members of promoting health and managing financial resources. One provider explained how one major barrier to this end was the lack of transparency to patients in the cost of care. As one provider stated, “You can’t expect people to willingly participate in something if they have no idea what the cost is...I’m not going to consider buying some flat screen TV if I have no idea what the cost is relatively to the cost of another flat screen TV. And so what happens with people in the absence of information, people either making the wrong assumptions, and in making the wrong assumptions about cost would in fact delay care” (Female, Public Health, County health executive). Many suggested more active patient outreach, education, and the use of patient portals as important ways to achieve shared responsibility (Table 3).

Facilitators and barriers to integration

The participants described many facilitators and barriers to integration, which are summarized in Table 4. They suggested many key facilitators that cut across several domains to achieve integration: 1) importance of seamless EHR and other information technology to promote information flow, 2) alignment of incentives to achieve patient-centered care, 3) robust primary care to act as a medical home, 4) genuine patient engagement, 5) a culture of teamwork fostered by strong leadership, and 6) proactive care that improves patient access and fosters a preventive care model. Some of the hindrances to achieving such key facilitators related to the systematic lack of infrastructure in place. A few specific barriers mentioned included 1) a financial model that did not reward teamwork and patient outcomes, 2) a shortage of a primary care workforce which poses a challenge for primary care to act as highly functioning medical homes, 3) the lack of a customer service model, which hinders access and transparency in cost for patients to make decisions about their care, and 4) difficulty accessing specialty care and ancillary services (Table 4).

Discussion

Our qualitative study reveals valuable perspectives of providers

and health administrators on definitions of integrated care and strategies to coordinate and integrate care. Providers and healthcare administrators suggested that the term integrated care can mean different things to different providers and it is important to be clear about how the term is being used. Our participants viewed integrated care as a higher level of coordinated care and not equivalent. Additionally, health information technology’s interoperability between providers, settings, and purposes was essential, but not sufficient to ensure coordination across patient and provider needs.

Not all aspects of integration may be perceptible to patients, and providers provided insights into many “behind the scenes” process that promote integration. For example, patients may not be aware of specific integration strategies being used, such as registries to keep track of disease-specific patient groups, such as diabetics, to facilitate quality improvement, patient outreach, and care coordination, even if registries and similar tools are means to achieving a more integrated patient experience and enhance patients’ sense of their care being proactively managed. Our prior study indicated that patients often can perceive when integration and coordination are--or are not--happening in their experiences with the health care system [10]. Providers and administrators, as might be expected, talked more about the processes and strategies for promoting care integration. Many of the facilitators and barriers discussed by our participant’s crossover multiple domains and may call for elaboration of the framework. The construct of coordination between care teams and community resources could be expanded upon to go beyond *connecting* patients to community resources to *building* a system around a community’s needs. Such a driver could also be conceived as a facilitator of patient-centeredness and proactive, responsive care.

The Health Services Resource Administration has developed conceptual framework that considers integration of primary care and behavioral health as representing a continuum [16]. Similar to respondents in our study, this model regards an initial stage of coordination of care, with the next level of integration consisting of co-location of services. The highest level is colocation with true operational integration where providers, systems, and functions are seamlessly integrated.

Although nearly all participants felt strongly that primary care was central to the success of functional integration, most expressed concerns about current incentives to promote such a system. The concepts of primary care have been linked to effectiveness and efficiency of care and studied by Star field and many others [17-19]. Taken individually, each of the main features of primary care (person-focused care over time that is accessible, comprehensive, and coordinated) contributes to care integration. A barrier to facilitating strong primary care was the lack of an effective business model to facilitate a robust primary care sector – some discussed the financial disincentives for coaching on lifestyle management and performing cognitive, instructional, and management components of care. Others suggested the difficulty of recruiting young physicians to primary care due to financial disincentives. Some lamented the lack of leadership to promote strong primary care.

Strong leadership was viewed by some participants as the glue to achieving effective integration on all fronts. Leadership was seen as a way to change the culture of a system and to help participants accept

and implement the changes that are recommended. Organizational culture can make a difference for creating the necessary management, leadership and financial resources to create pathways towards improved coordination.

There are several limitations to our study. Providers and health administrators who participated may not be representative of the broader population of providers. Other members of the healthcare community and provider teams could have been interviewed to further explore the thematic findings. Participants were recruited using a convenience sample from a network of community physicians and health administrators in the greater San Francisco area—an area with majority of patients seen in integrated delivery systems, such as Kaiser and the county-administered San Francisco Health Network. We also interviewed more primary care providers than specialists, which may have skewed the findings towards an emphasis on primary care. Interviews are always susceptible to researcher and respondent bias and subjective interpretation though they provide useful insights and themes. We attempted to reduce potential bias and identify recurring concepts through independent reviews of the thematic elements by different members of the study team.

Conclusions

Our study highlights the need to incorporate the perspectives of providers when developing strategies for evaluation and monitoring of care integration in health system reform efforts. Accountable care organizations and patient-centered medical homes are newer iterations of older concepts of primary care and care integration. The sustainability and success of these modern modifications will depend on how much we learn from the experiences of patients and providers who have to navigate these systems on a daily basis. Future research on integrated care should expand on existing frameworks and develop validated metrics for evaluation, including economic impacts [20]. The Affordable Care Act's expansion of healthcare insurance coverage must be accompanied by equal commitment to facilitate greater functional integration in the experience and delivery of health care.

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