



MASSACHUSETTS MEDICAL SOCIETY

Every physician matters, each patient counts.

Toward Effective Health Care Systems

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Toward Effective Health Care Systems

Introduction

“What makes this moment different is that this time – for the first time – key stakeholders are aligning not against, but in favor of reform. They are coming together out of a recognition that while reform will take everyone in our health care community doing their part, ultimately, everyone will benefit.”

President Obama, speech to the American Medical Association, June 15, 2009

“The voice of the practicing physician is absolutely essential to developing a system that will work. At the end of the day, physicians will be the ones expected to work with a new system. It only makes sense that we help design it, too.”

Alice Coombs, M.D., President, Massachusetts Medical Society

With the recent passage of national health care reform legislation and Massachusetts payment reform initiatives, physicians find themselves delivering care to patients during a unique, exciting and challenging time. With health care costs escalating, a focus on finding and analyzing those “effective health care systems” that deliver the highest quality care at lower costs is more important than ever. Physicians will need to lead these efforts to ensure that the systems designed are the most effective for both physicians and their patients.

The goal of this white paper is two-fold. First, the paper will synthesize the literature effective health care systems for physicians highlighting the main elements of effective health care system models in the U.S. We will focus specifically on some of the institutions that have been shown to provide high quality, cost-effective care although there are many others, both locally and nationally. Second, the paper will present the practice challenges for physicians in implementing these effective elements in their health systems and practices and, where available, how some physicians and health systems have overcome these barriers to implement and affect change in these areas.

Effective Care

“Health care providers must work together to create value – a quality outcome, a safe environment and a satisfied patient, at a reasonable cost over time – and payers must establish payment mechanisms that financially reward providers who deliver value.”

Delivery System Reform, Action Steps and Pay-for-Value Approaches, A Joint Perspective from Intermountain Healthcare, Kaiser Permanente, and the Mayo Clinic

What do we mean by effective health care systems?

There are many elements of effective health care systems according to the many national and local researchers and experts currently examining this issue including experts from organizations such as the Commonwealth Fund, the Institute for Healthcare Improvement, and the Henry J. Kaiser Family Foundation, researchers who have published their findings and opinions in the journals *Health Affairs* and the *New England Journal of Medicine*, as well as physician leaders and health policy analysts.¹ This paper

¹ For a complete list of research and experts examined in this paper, refer to the endnotes section of this paper.

focuses on a synthesized list of essential elements of health care systems health care researchers and experts agree are essential to high-quality, low-cost systems that are discussed in this white paper:

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1. Easily Accessible and Appropriate Patient-Centered Care

“The best interest of the patient is the only interest to be considered, and in order that the sick may have the benefit of advancing knowledge, union of forces is necessary.”¹

William J. Mayo, M.D., June 15, 1910

Many expert opinions reviewed for this paper¹ agree that patient-centered care is essential to developing effective health care systems. The Institute for Healthcare Improvement defines patient-centered care as:

“Care that is truly patient-centered considers patients’ cultural traditions, their personal preferences and values, their family situations, and their lifestyles. It makes the patient and their loved ones an integral part of the care team who collaborate with health care professionals in making clinical decisions. Patient-centered care puts responsibility for important aspects of self-care and monitoring in patients’ hands — along with the tools and support they need to carry out that responsibility. Patient-centered care ensures that transitions between providers, departments, and health care settings are respectful, coordinated, and efficient. When care is patient centered, unneeded and unwanted services can be reduced.”²

The Institute of Medicine lists “patient-centered care” as one of its six domains of quality and the Commonwealth Fund stresses that having health systems built around patient needs and wants can not only improve patient satisfaction but also improve clinical outcomes.³ The Mayo Clinic, for example, has shown significant success in this area where their “patient-first” mission is woven throughout the fabric of everything they do from developing patient-centered measures for quality of care¹ to developing strategic plans and operational strategies and tactic that revolve around the mission of patient-centered care. ⁴

The patient-centered approach has resulted in high patient satisfaction scores. Physicians receive communication training that focuses on improving the relationship between the physician and the patient. Physicians are encouraged during this training to listen to the patient without interruption and follow up with the question, “is there anything else”.⁴

At Mayo, patients have easy access to appropriate care and information at all hours, there are multiple points of entry to the system, and providers are culturally competent and responsive to patients’ needs.⁵ The needs of diverse groups of patients are met through such services as linguistic interpreters who, collectively, speak 23 languages. Another example is the patient-centered scheduling system where Mayo uses algorithms to assign new patients to physicians and move patients through the system, taking into

account the patient's availability, the specific time and sequencing requirements of office consultations, laboratory tests and procedures, and the travel time between appointments. To further patient-centered scheduling, Mayo offers several primary care clinics with same-day or next-day appointments. This type of scheduling has led to "lean" methodology to reduce patient waiting time and missed appointments and increase value-added time with patients.⁵ This type of timely access to care and improved methods of communication between patients and the health care team will improve overall access to care.⁶

The result of patient-centered care includes not only improved patient satisfaction, but also improvements in quality and clinical outcomes. For example, when Cincinnati Children's Hospital began incorporating suggestions from cystic fibrosis patients and their parents into the overall model of care, quality of care and clinical outcomes improved significantly.⁷ In this organization with a focus on patient-centered care, parents and patients are actively involved in the care plan and are shown how to administer care. Parents and patients are also invited to be volunteer members of the care teams for new patient families and have formed support network.

Practice Challenges

Sarah H. Scholle, Dr.P.H., assistant vice president for research and analysis at the National Committee for Quality Assurance (NCQA), uses funding from the Commonwealth Fund to develop and test measures to evaluate the "patient-centeredness" of care provided in physician offices. She noted several challenges physicians face as they move toward more patient-centered care. First, time and resources are an obstacle. With all of the pressures and time constraints on physicians and their staff, it is difficult for them to find the extra time to give full explanations of illnesses or treatment options to their patient. Second, there are financial pressures that make it hard to do all the steps to coordinate care for chronic illnesses or help patients to do better self-care because physicians are often not paid for the types of tasks necessary to implement this type of care, such as e-mail or phone consultation or for longer visits to provide more educational materials. Third, the current reimbursement system does not encourage practices to develop resources to support patient-centered care. A fourth challenge involves a lack of metrics. Without metrics to measure where practices stand currently on patient-centered care, it is difficult to start moving toward a system that "rewards physicians and practices for meeting quality standards, for doing a good job, and for helping patients manage their chronic illnesses and care outside the office".⁸

According to a white paper commissioned by the W.K. Kellogg Foundation, certain populations such as low-income individuals, uninsured persons, immigrants, racial and ethnic minorities, and the elderly—who are typically underserved by the health system—face significant barriers to patient-centered care (PCC).⁹ The authors of the study found a number of barriers in pursuing patient-centered care, some of which may be applicable to other health care systems. These include the following:

- Difficulty recruiting and retaining underrepresented minority physicians;
- Lack of defined subject-matter 'boundaries' for outreach staff who may be overwhelmed dealing with interrelated health, social, cultural, and economic issues of patients;
- Strict hiring requirements that pose obstacles to hiring neighborhood residents;
- Lack of tools to gauge and reward PCC performance;
- Financial constraints;
- Traditional attitudes among staff unwilling to change the "old school" provider/patient relationship or acknowledge and address cultural and socio-economic issues; and
- Fatigue and competing priorities.

2. Physician Leadership & Engagement

"Many of the best-known integrated delivery systems and large multi-specialty medical groups were founded by strong and charismatic physician leaders." ¹⁰

John H. Cochran, M.D., Executive Director, The Kaiser Permanente Federation

In an article in the January 2009 issue of *Health Affairs*, the authors, health care quality experts from the National Quality Forum, outline how developing strong leaders will allow health care systems to build organizational capacity to achieve higher levels of performance. The authors call for a "cultural transformation" among clinicians so that professional autonomy is not a barrier to the development of organized health care systems and well-designed care processes. They call for a system whereby appropriate levels of autonomous decision making coexist with strong organizational supports. According to the authors, such a system will need guiding principles of professionalism:

"Principles of professionalism must evolve to address the responsibilities of clinicians to shape organizational missions, governance, cultures, policies, and care processes that are in the best interest of patients."

These experts argue for strong leadership to institute changes and train the next generation of leaders within emerging organizational arrangements designed to improve and standardize care.¹¹ Health care systems around the nation that have been identified as the "gold standard" in effective care foster physician engagement and physician leadership by stressing that physicians are the "driving force" in determining the cost and quality of care for the community. Several well-known examples of physician leadership at work include the Mayo Clinic, Kaiser Permanente and Geisinger Health Systems.

Mayo Clinic's model consists of private group practices governed by physician-led committees. Rather than turning the management of their healthcare centers over to professional administrators, Mayo Clinic physicians have rotating committee assignments where physicians partner with administrators to develop strategies and resolve problems because physicians know best when it comes to patient care. In addition, Mayo's board of governors is comprised primarily of physician leaders providing under the oversight of the Mayo Board of Trustees. At Kaiser Permanente in California, physician leaders are engaged and accountable via medical group self-management and self-governance. They also partner with the health plans through annual agreements, joint decision-making bodies, and day-to-day collaboration between physician leaders and health plan and facility managers at all levels.¹² Physician leaders at Geisinger Health System are involved in day-to-day operations and Geisinger's system-wide clinical lines are led by physician-administrator pairs.¹³

Many experts¹ assert that physicians are in a unique position to lead the charge in slowing the growth of health care costs in the following ways:

- 1) physicians can help patients understand when a more conservative path is likely to be as safe as a more intensive and higher-cost path;
- 2) physicians have the credibility to argue against the need for further growth — whether through hospital expansion, the construction of new imaging centers, or the recruitment of more specialists to oversupplied regions and;
- 3) physicians can support changes in the health care system that will help their patients and communities get the best possible care at the lowest possible cost.¹⁴

The American Academy of Family Physicians (AAFP) states how physicians with leadership roles are well-suited for health care administrative leadership roles:

- Physicians with strong leadership skills are well-positioned to bring medical expertise to the business side of health care.
- Because of their experience dealing with ambiguity, making tough decisions, interpreting nonverbal cues and persevering with confidence, physicians are suited for leadership.
- Moving into administrative medicine means shifting from a focus on individual patients to the organization as a whole.¹⁵

Practice Challenges

Although physicians possess the skills needed to deliver clinical care, they often are not educated in the managerial skills needed to “administer the business of health care.”¹⁵ However, educational opportunities for physicians interested in leadership roles are increasing both nationally and locally. In Massachusetts several local physician groups are actively recruiting and training physicians for leadership positions through internal leadership training programs. However, there are many physicians for whom limited time, resources and finances inhibit them from pursuing their full leadership potential.

3. Payment Reform – Pay for Value

“The diversity of our health care system is one of our strengths. We must take this into account when thinking about new payment models. We need a nuanced approach, if we are going to make our health care system better.”

“The voice of the practicing physician is absolutely essential to developing a system that will work. At the end of the day, physicians will be the ones expected to work with a new system. It only makes sense that we help design it, too.”

Alice Coombs, M.D., President, Massachusetts Medical Society

Payment reform initiatives are currently being evaluated at the state and national levels as an important component of the larger reform of the health care system. Under national reform, a new Center for Medicare and Medicaid Innovation was established to test innovative payment methods for medical homes that provide patient-centered coordinated care and for bundled hospital acute and post-acute care. In Massachusetts, the Special Commission on the Health Care Payment System, established by the legislature, developed recommendations “for reforming and restructuring the system to provide incentives for efficient and effective patient-centered care and to reduce variations in quality and cost of care.” The Special Commission voted unanimously in 2009 to support a recommendation for the gradual implementation of a new payment model for health care providers in Massachusetts. The new model - global payments - seeks to moderate the rising cost of health care, while simultaneously providing support and incentives for physicians and hospitals to provide high quality, patient-centered care.¹⁶

While there is a general understanding payment mechanisms will effect the integration of care, there is limited evidence as to which mechanism is most effective. Several systems throughout the country note the importance of payment mechanism when delivering care. For example, according to organizations such as Kaiser Permanente, Mayo Clinic and Intermountain Healthcare, the traditional fee-for-service system emphasizes physicians as independent decision makers. These organizations maintain that payment

reform initiatives designed to improve the integration of care delivery promote teamwork where physician-led teams of health professionals can work together to provide high-quality, cost-efficient patient care.¹⁷

Although reform initiatives are important to consider as Massachusetts and the nation seek to improve cost-effective, high-quality health care, "the MMS is strongly on record that there must be alternative payment models on the table" and "therefore, we must not foreclose the opportunity for other payment considerations." "In the same spirit we must reiterate the voluntary nature of moving caregivers to any payment model with an emphasis on incentives rather than punitive mandates."¹⁸ In addition, MMS' current policy on health system reform states that: "The MMS encourages a pluralistic compensation system to include fee-for-service, salary, and limited pilot studies that utilize global payment system."

Practice Challenges

The capability of physicians and hospitals to move to a new payment system varies widely. According to state data, 62 percent of practices in Massachusetts have only one or two physicians. If they want to move to global payments, they will need lots of help with technology and training, and practice management assistance.¹⁹

There are many challenges when implementing payment reform and a move toward rewarding value via performance-based compensation systems. At Geisinger Health System, for example, implementation of a new compensation system occurred slowly and deliberately over a seven year time span. Nevertheless, the organization sustained a higher rate of turnover among physicians and leaders early in the process of making this change.

Another challenge in payment reform is profitability as there is a risk any losses resulting from new payment models may need to be offset. "The Cleveland Clinic stays profitable by offsetting its losses on Medicare patients with payments from private insurers and thousands of foreign patients who often pay its full list prices. Those prices can be two to three times higher than what U.S. insurance plans negotiate with the clinic. The clinic also pulls in significant revenue from philanthropy; it collected \$183 million in 2008."²⁰

Despite the barriers, others find payment reform to be a unique opportunity for physicians to increase their autonomy. Advocates say a payment reform system that moves away from fee-for-service could ultimately give doctors more control as they are able to focus on improving a patient's health instead of being concerned with how many patient visits or services are involved. Conversely, doctors may find themselves pitted against patients who want care that involves the most costly treatment alternative or that may be unlikely to improve patient outcomes.²¹ In a recent Op-Ed piece in the Boston Herald, Dr. Alice Coombs, President of the MMS, remarked on this issue saying, "Most [patients] want to keep their doctor, and they treasure the freedom to make their own decisions about health care. If a new payment model is to succeed, patients must understand it and trust it will meet their needs. This issue cannot be neglected."

4. Clinical Integration

“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 services in relation to access, quality, user satisfaction and efficiency.”

World Health Organization (WHO)
European Office for Integrated Health Care Services²²

Some experts¹ agree that the “cultural transformation” needed to bring about the best quality of care that is also delivered in a cost effective manner needs clinical integration..

Clinical integration refers to “the capacity of an organization to provide most of the services that patients with chronic illnesses will need.”¹¹ There is increasing evidence that more organized forms of physician practice are associated with providing greater value (cost and quality performance) in the delivery of health care services. Many experts agree that for a health care system to offer high-quality, cost-effective care, patient care must be integrated and coordinated among multiple providers and across care settings, conditions, and services over time.^{23,24}

In a discussion paper on the concept of integrated care published in the *International Journal of Integrated Care*, the authors discuss the various definitions of the term “integrated care”. Integrated care could mean a system allowing for “greater efficiency and effectiveness, less duplication and waste, more flexible service provision, and better co-ordination and continuity” as well as a system with the “ability to encourage more holistic and personalized approaches to multidimensional health needs”. The authors argue that integration “may be seen as a step in the process of health systems and health care delivery *becoming* more complete and comprehensive”.²⁵

Examples of integrated care include Geisinger and Kaiser. Geisinger’s integrated system is an open one where Geisinger patients are seen in non-Geisinger hospitals. To make this work effectively, Geisinger has incorporated a mixed-health-plan provider network. This network has allowed Geisinger to collaborate and communicate with non-Geisinger physician groups. One example of how this is done is through Geisinger’s use of nurse case managers who are employed by both Geisinger and non-Geisinger primary care physician practices with one electronic health record (EHR) that operates across all practices.²⁶ Kaiser has managed to expand outside of California without losing its integrated care delivery model even though they do not own hospitals in the expansion regions. Kaiser Permanente accomplished this by developing relationships with local hospitals to facilitate care management. However, it is important to note that, although Kaiser has both hospital and non-hospital regions, in general, Kaiser finds its efficiency is better in the regions where they own and operate their own hospitals.²⁷

Practice Challenges

Mayo, Geisinger and Kaiser Permanente are models for clinical integration around the nation. However, these health care systems are distinctive from many of the systems in Massachusetts and, therefore, may be difficult for physicians in Massachusetts to duplicate. First, these systems are tightly integrated, because the physicians and other staff who operate the Mayo medical centers are employed by Mayo and the hospitals are owned by Mayo. Moreover, Geisinger Health Systems consists of a clinical enterprise with three medical center campuses and a 700-member group practice as well as a not-for-profit health insurance company (GHP).²⁸ Geisinger’s integrated system consists of a network model of health maintenance organizations offering individual, group, and Medicare coverage to patients, 30% of whom are

insured by GHP. Second, their methods for paying physicians are unique as Mayo and Kaiser Permanente physicians are salaried.

Although clinical integration is important to achieving higher levels of performance, there are examples that illustrate that physicians need not practice in multispecialty group practices to reap many of the benefits of scale and clinical integration. Small practice settings' can become part of larger organizational arrangements and gaining access to critical organizational supports, without changing their practice setting. For example, Geisinger Health System's physician group practice includes 200 PCPs who practice in thirty-eight community locations. These physicians enjoy the benefits of a large organization, such as access to cutting-edge health informatics, while remaining within a community practice setting. Another example is Hill Physicians Group in Northern California which started out as an Independent practice association consisting of individual physician practices that came together largely for purposes of contracting with health plans. Over time, Hill Physicians Group and others evolved into more-organized networks of practices that are actively engaged in practice redesign, quality improvement initiatives, and implementation of electronic health records.²⁹

Integrated care systems are more likely to be successful and sustainable when they draw on multiple strategies, taking into consideration educational/cultural aspects, structural aspects, technological tools and evaluation of the program. Hospitals and physicians need to form new relationships to enhance their capability to respond to the new incentives.³⁰ It is also important to note that integrated care is not an end in itself. It should rather be understood as a means to improve quality (access, user satisfaction, effectiveness and efficiency).

5. Transparency

"Quality transparency programs are unlikely to have substantial influence on quality improvement unless they gain widespread stakeholder acceptance—especially from the providers being rated—and seriously commit to improving the caliber of the quality data reported."

Center for Studying Health System Change

According to the Commonwealth Fund, transparency and better information on cost and quality are essential for three reasons:

- 1) to help providers improve by benchmarking their performance against others;
- 2) to encourage private insurers and public programs to reward quality and efficiency and;
- 3) to help patients make informed choices about their care.³¹

It is critical that data made available to physicians and their patients be derived from valid, reliable methodologies and that the data be accurate. In addition, information should be provided in a meaningful manner that is actionable by physicians for quality improvement.³²

Data collected by the Commonwealth Fund indicates that most patients do not have access to the cost and quality information they need and want to make informed choices.³³ In Massachusetts, the Massachusetts Health Quality Partners (MHQP), has publicly released clinical quality data as well as patients' ratings of their experiences with doctors' offices throughout the state. Information on the clinical performance of primary care physicians in Massachusetts are now publicly available at the medical group level through MHQP.³⁴

Researchers have found that transparency drives quality improvement and that effective measurement approaches will provide insight into how to improve care delivery processes, including the integration and coordination of care discussed in earlier sections of this paper. There are a variety of methods used for reporting performance measurements. These include: the individual provider; the treatment team; the practice site; the facility and; the medical group level. The level of aggregation impacts the usefulness, reliability and validity of the data. Therefore, consistent and clear reporting “requirements and measurement approaches across the industry will make it easier for patients to understand the information and will reduce the reporting burden currently faced by providers.”³⁵

Rising health care costs and further attention to the quality of health care delivered in Massachusetts have driven payers, employers, and providers to seek out new ways to measure costs and value with regard to the provision of health care. Currently, there are a number of initiatives underway at the state and federal level that seek to achieve the above stated goals.

To assist in the successful development and implementation of performance measurement, reporting and rewards programs, the MMS has done research with national experts to develop recommendations and guidelines to help ensure that methodologies used to develop these programs are carefully and thoughtfully researched, developed and validated with the goal of protecting patients from exposure to potential inaccuracies and unintended consequences. We believe that particular attention must be paid to transparency regarding all aspects of the methodologies and criteria used to judge physicians. We equally believe that physician involvement is needed and measures and data must be accurate, reliable and valid.³⁶

Practice Challenges

Although transparency is an important issue for physicians to consider as they move toward effective health care systems, the process is not without its challenges. For example, some programs that aim to promote transparency to improve clinical outcomes are flawed and inaccurate and therefore, may harm physicians and mislead patients. If physicians are misclassified, patients receive wrong information that may in fact cost the system more. Researchers at RAND, commissioned by the MMS to study the methodology of the rankings, found that the program lacks a valid and accurate methodology to properly evaluate physicians.³⁷

In addition, the MMS has policies governing transparency in the health system including the following³⁸:

- The MMS will work with the leadership of health plans and the Department of Insurance on voluntary and/or regulatory measures to implement increased health plan accountability and transparency in regard to premium dollars spent on direct patient care.
- The MMS will ensure transparency of the flow and accountability for health care dollars, in order to assess what proportion of the enrollees’ premium is paying for medical vs. non-medical costs.
- Tiering
The MMS strongly supports efforts to improve the quality and cost-effectiveness of health care and is committed to working closely with other parties to these ends. In the Society’s view, the essential elements of effective programs for monitoring the quality and costs of health care include the following:
 - Quality measures that are clinically meaningful and directed at outcomes as well as processes of care
 - Use of accurate and timely data
 - Focus on results that are directly attributable to the physician’s performance

- Analyses of data that are appropriate to the questions being addressed and are effectively risk-adjusted
 - Effective steps to correct data inaccuracies or misinterpretations before data are released to outside parties: i.e., insurers, employers, or the public
 - Public reports that are easily and accurately interpreted
 - Incentives aimed at rewarding better physicians or hospitals based on important differences in clinical outcomes or the cost-effectiveness of care
- Ensure Transparency of All Quality and Cost-Effectiveness Measures and Methods: Complete descriptions of all measures, criteria, algorithms, methodologies, and data sources should be made available in writing to all parties. Preferably, these should also be Web-available
 - The need for transparency. The health care system should make information available to patients and their families that allows them to make informed decisions when selecting a health plan, hospital, or clinical practice, or choosing among alternative treatments. This should include information describing the system's performance on safety, evidence-based practice, and patient satisfaction.
 - The MMS will work with the leadership of health plans and the Department of Insurance on voluntary and/or regulatory measures to implement increased health plan accountability and transparency in regard to premium dollars spent on direct patient care.

Finally, as ACOs emerge as one method for delivery of care, there should be transparency across payers regarding ACO structures. Also, ACOs must be transparent in their financing of providers and there should be mutual knowledge among specialties regarding respective revenues. Trust will certainly be a necessary ingredient of a successful ACO with negotiations between specialists, primary care physicians, and payers a determining factor.

6. Coordination of Care

"Care coordination has been defined as "the deliberate integration of patient care activities between two or more participants involved in a patient's care to facilitate the appropriate delivery of health care services."³⁹

Agency for Health Care Research and Quality

Health care experts note that, with medical science becoming more sub-specialized and chronic disease on the rise, there is an increasing need for truly coordinated health care. Care coordination is especially important since more people are developing multiple chronic diseases such as diabetes, heart failure and depression. Unfortunately, far too many patients do not have their care appropriately coordinated. The Commonwealth Fund reports that Medicare patients with four or more chronic diseases see an average of fourteen physicians annually, leading to medical costs equal to two-thirds of the federal program's total spending. The coordination of care takes teamwork as well as increased integration and improved communication between providers so that contradictory treatment and the resultant increased spending and costs will diminish. Experts advise that medical schools should teach physicians how to work effectively on teams, how to coordinate care, and how to apply systems thinking and re-engineering to health care delivery.³⁵

Highly regarded delivery systems are known for having strong organizational cultures that have developed over decades.⁴⁰ At many of the top health care systems this shared vision is a culture of collaboration.

According to Mayo Clinic's former CEO Denis Cortese, M.D., "Mayo leadership strongly believes in the critical importance of creating and maintaining a learning organization in which teams of medical professionals use information technology and systems engineering to learn from each other in a timely way and do it as part of the ongoing activity of clinical practice." Kaiser Permanente has a similar philosophy where high performance is linked to shared vision, values, and sense of mission around caring for patients and populations. The Commonwealth Fund describes a culture of shared responsibility, accountability, peer review and teamwork within and across settings at highly effective health care systems. Physicians and staff have accountability to each other, review each other's work, and collaborate to reliably deliver high-quality, high-value care.⁴¹

Kaiser Permanente, Mayo Clinic and Intermountain describe a shared organizational culture as a place where physicians coordinate care in functional health care teams – preferably within multi-specialty medical groups – across conditions, care sites and over time. Research on patient care teams suggests that teams with greater cohesiveness are associated with better clinical outcome measures, lower total cost and higher patient satisfaction and the Institute of Medicine (IOM) advises that for health systems to be valuable they must continually advance the effectiveness of teams. According to The Commonwealth Fund, effective health care systems employ "Patient-Centered Teams" which are multidisciplinary teams of providers in which physicians organize and associate with other parts of the delivery system allowing for patients to connect to a team of providers and to the delivery system as a whole.⁴² . Physicians who organize into teams can become affiliated with other aspects of the health care system to connect the patient to a team of providers and to the delivery system as a whole facilitating improved access to care for the patient.⁴³

In July of 2009, the Massachusetts Special Commission on the Health Care Payment System outlined recommendations for payment reform in the Commonwealth. One recommendation was to develop Accountable Care Organizations (ACOs) (specifically as defined here) that accept responsibility for all or most of the care that enrollees need. ACOs will be composed of hospitals, physicians and/or other clinician and non-clinician providers working as a team to manage both the provision and coordination of care for the full range of services that patients are expected to need.⁴⁴ ACOs are being suggested at the national level as well under national health care reform efforts. MMS policy "encourages a pluralistic compensation system to include fee-for-service, salary, and limited pilot studies" that utilize global payment system.⁴⁵

Practice Challenges

Although this paper has presented examples of effective, comprehensive health systems, these are the exceptions to the rule. Nationally, although younger physicians are choosing larger group practices, most physicians are in smaller practice settings. Specifically, 62% of practices in Massachusetts have only one or two physicians. The result is a complex system where "a typical primary care provider (PCP) who sees 257 Medicare patients a year has a network of 183 peers in 108 different practices, which makes it extremely challenging to achieve any reasonable level of coordination."¹¹ And many multispecialty clinics, such as the Cleveland Clinic, employ their own physicians to create teams of specialists that collaborate and coordinate care. However, at most traditional hospitals, physicians remain in private, independent practices.²⁰

There are often cultural reasons for the proliferation of small group practices as many physicians value their independence and may have difficulty transitioning to multispecialty clinics where teams and hierarchy have been the norm for decades.⁴⁶ Also, some experts argue that, teams may detract from patient-centeredness because the relationship with one dedicated provider becomes less important.⁴³ The result is that small practices generally lack the scale and capacity to implement the infrastructure, including nurses and other staff as well as electronic medical records, so necessary to coordinate care.⁴⁷ From an economic standpoint, coordination of care is also difficult to achieve given the current payment system. For example, care transitions from hospital to community are not incentivized. Therefore, there is

no financial incentive to offer the coordinated discharge and care needed to improve transitions.⁴⁸ In addition, “pay-for-performance systems, which provide a small percent of physician revenues, are generally based on specific measures that are less relevant for patients with multiple diagnoses, those most in need of care coordination.”⁴⁸

7. Promotion of Primary Care

Patient access to high-quality, primary care is essential for a well-functioning health care delivery system.

Medicare Payment Advisory Commission (MedPAC)

Many experts argue that patient access to high-quality, primary care is essential for a well-functioning health care delivery system and may improve the efficiency and quality of health care delivery. Strong primary care is good for patients who want a relationship with a doctor whom they trust as well as an advocate for them within a fragmented health care system.⁴⁹ While a personal relationship with a physician is a critical component of primary care delivery, creating teams of clinicians, including specialists, who support a physician can further improve an organization’s approach to providing primary care.³⁵ Primary care physicians are also, due to their position as the gateway to care, most likely to see firsthand how social factors affect patients who have chronic diseases.⁴⁹

The importance of primary care in effective health care system is evident from recent provisions in the newly enacted national health care reform law, Patient Protection and Affordable Care Act (P.L. 111-148). Specifically, the law provides increased Medicaid payments in fee-for-service and managed care for primary care services provided by primary care doctors (family medicine, general internal medicine or pediatric medicine) to 100% of the Medicare payment rates for 2013 and 2014 with states receiving 100% federal financing for the increased payment rates. (Effective January 1, 2013). Also, the law provides a 10% bonus payment to primary care physicians in Medicare from 2011 through 2015.⁵⁰

Practice Challenge

Unfortunately, effective primary care is often not rewarded under the current payment mechanisms⁵¹ and fewer physicians are training in primary care.^{52, 53} Medical student debt for primary care physicians is a significant issue given the lower salaries primary care physicians earn compared to physicians in some of the other specialties. The result is primary care workforce shortage, both locally and nationally. Massachusetts has been hard hit experiencing a shortage of primary care physicians for the past five years with internists and family medicine physicians reporting long appointment wait times for new patients.⁵⁴

8. Evidence-based care and Comparative Effectiveness Research

“It is more important than ever to engage in robust research on what treatments work and what do not. Doing so empowers doctors and patients, and helps make our practice of medicine more evidence-based.”

Private citizen unaffiliated with any health care group
Quoted in the U.S. Department of Health and Human Services Federal Coordinating Council for Comparative Effectiveness Research Report to the President and Congress, June 30, 2009

The American Recovery and Reinvestment Act of 2009 created the Federal Coordinating Council for Comparative Effectiveness Research to coordinate comparative effectiveness research across the Federal government. The Council will specifically make recommendations for the \$400 million allocated to the Office of the Secretary for CER.⁵⁵ “Comparative effectiveness research is the conduct and synthesis of research comparing the benefits and harms of different interventions and strategies to prevent, diagnose, treat and monitor health conditions in ‘real world’ settings. The purpose of this research is to improve health outcomes by developing and disseminating evidence-based information to patients, clinicians, and other decision-makers, responding to their expressed needs, about which interventions are most effective for which patients under specific circumstances.

- “To provide this information, comparative effectiveness research must assess a comprehensive array of health-related outcomes for diverse patient populations and subgroups.
- “Defined interventions compared may include medications, procedures, medical and assistive devices and technologies, diagnostic testing, behavioral change, and delivery system strategies.
- “This research necessitates the development, expansion, and use of a variety of data sources and methods to assess comparative effectiveness and actively disseminate the results.”⁵⁶

According to the Institute of Medicine (IOM), incorporating evidence-based care processes in our health care system will improve effectiveness and reliability of health care delivery. (we might want to find a quote from local physician groups or leaders also..and we should probably add more to this as there is new attention to this federally etc... In Massachusetts, the Department of Health Care Policy and Finance has stressed the need for evidence-based public health and wellness programs. At Geisinger Health Systems, health professionals were asked by the leadership to follow evidence-based guidelines or to develop consensus-based care standards for prevalent chronic diseases, such as diabetes, coronary artery disease, congestive heart failure and kidney disease. Geisinger found that by following evidence-based standards of care, “you increase quality for these groups of high-utilizing patients, you’re also decreasing costs”.⁵⁷

According to Kaiser, Intermountain and Mayo, it is essential to health care reform that physicians and health care systems have better information about the effectiveness of care, including the relative benefits, risks, and costs of treatments and services as well as comparative effectiveness research and the development of clinical care guidelines and disease management protocols. This requires the use of patient information and appropriate access to patient records, with privacy safeguards as currently required under HIPAA rules. Accuracy and attribution of data may also be an issue.

Practice Challenges

Evidence-based care requires clinical data. However, clinical data can be difficult and expensive to collect and often take years to complete. “New technologies are expected to be a major driver of Medicare’s future costs, as well as of future benefits from research advances. Since new technologies are initially used for a small number of patients, it is easier and less expensive to organize data collection and evaluation for them than for therapies that are used broadly.”⁵⁸

On the other hand, the Federal Coordinating Council for Comparative Effectiveness Research Report to the President and the Congress on June 30, 2009, notes the benefits of comparative effectiveness research as “patient-centered outcomes research”:

“Comparative effectiveness differs from efficacy research because it is ultimately applicable to real-world needs and decisions faced by patients, clinicians, and other decision makers. In efficacy research, such as a drug trial for the U.S. Food and Drug Administration (FDA) approval, the

question is typically whether the treatment is efficacious under ideal, rather than real-world, settings. The results of such studies are therefore not necessarily generalizable to any given patient or situation. But what patients and clinicians often need to know in practice is which treatment is the best choice for a particular patient. In this way, comparative effectiveness is much more patient-centered. Comparative effectiveness has even been called patient-centered health research or patient-centered outcomes research to illustrate its focus on patient needs”.⁵⁶

9. Health Information Technology

“Information is the lifeblood of modern medicine. Health information technology (HIT) is destined to be its circulatory system.”⁵⁹

David Blumenthal, M.D., M.P.P.

According to the Commonwealth Fund and the Institute of Medicine (IOM), effective health care systems use information technologies to make patients’ clinically relevant information available to all providers and members of the care team at the point of care and to patients through electronic health record (EHR) systems. Some experts agree that EHRs can improve both efficiency and quality of care.⁶⁰ A systematic review of the literature on the impact of health information technology on quality, efficiency, and cost of medical care found research demonstrating the efficacy of health information technologies in improving quality and efficiency.⁶¹ Studies have found improvements in coordination of care as well such. For example, in a study of small- and medium-sized physician practices, researchers found that EHR systems can help coordinate patient care within practice offices.⁶²

Individual medical records, medication lists, and the latest findings on evidence-based medicine must be readily available for providers and patients. EHR systems, with confidentiality safeguards in place, can allow providers to collaborate and coordinate care for patients. Therefore, health care experts emphasize the promotion and development of effective EHR systems as well as the provision of training for physicians and staff so they can effectively use the systems.⁶³ The U.S. government, in an attempt to address the lack of infrastructure for the exchange of health information, is providing more than \$560 million to state governments to lead the development of exchange capabilities within and across their jurisdictions. The HITECH Act rewards the meaningful use of qualified, certified EHRs.⁵⁹

Practice Challenge

Researchers have noted that the “effectiveness and generalizability are of particular importance in this field because health information technologies are tools that support the delivery of care—they do not, in and of themselves, alter states of disease or of health. As such, how these tools are used and the context in which they are implemented are critical.”⁶¹ Although some research demonstrates improvements in quality of care and efficiency, we currently lack definitive answers on the impact information technology has on quality of patient care.

Another issue is that solo and small group practices, where more than two-thirds of Massachusetts physicians work,¹⁹ often lack the financial resources to implement EHRs. too...) Researchers funded by the Commonwealth Fund found that initial EHR costs average \$44,000 per physician and ongoing costs average \$8,400 per physician per year. These researchers agree that these costs may appear to be high. However, they state that an average practice could cover its costs in under three years and, after that, profit considerably. Unfortunately, these same researchers found that, for most physician offices, implementation

results in more time spent in the office while some offices will face significant financial risks, including long payback periods, billing problems, and data loss.⁶⁰ Interoperability issues can pose a problem making EHRs less able to support coordination between clinicians and across settings. Information overload can impede the physician's ability to find essential information that a physician needs to know during a patient visit and lack of financial incentives can impede physicians' ability to use EMRs to improve patient care and coordination.⁶² The cost of system maintenance and support are also financial issues that challenge physicians as they seek to implement EHRs.

CONCLUSION

This paper provides a synthesis of some of the literature on effective health care systems to identify nine important attributes of high-quality, cost-effective models:

- 1) Easily Accessible and Appropriate Patient-Centered Care;
- 2) Physician Leadership & Engagement;
- 3) Payment Reform – Pay for Value;
- 4) Clinical Integration;
- 5) Transparency;
- 6) Coordination of Care;
- 7) Promotion of Primary Care;
- 8) Evidence-based care and;
- 9) Health Information Technology.

However, for these elements to be implemented nationally and in Massachusetts, we need a health care system where physicians have the necessary resources to make infrastructure changes to bring these elements into their practice. Physicians also need a health care system with reduced administrative burdens so they can provide the best clinical care possible for their patients. Further, in order for these elements to work, the health care system needs both professional liability and anti-trust legislation reforms. For example, physician resources will be better spent on building the infrastructure necessary to implement these elements to improve patient care rather than on high liability premiums and malpractice lawsuits. And without addressing certain anti-trust regulations, physicians will find it difficult to build practices offering integrated, coordinated care or develop entities such as ACOs.

Finally, we could not cover all of the elements needed for high-quality, cost-effective care nor could we review and report on all of the literature on this subject in this paper. Nor could we address all of the practice concerns and challenges physicians will face as they consider incorporating these elements into their practice. However, this paper does provide physicians with an important reference as they continue in their quest to provide patients with the best possible care in a rapidly changing and consistently challenging health care system.

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