

# Team-Based Health Care Delivery: *Lessons from the Field*





Dear Colleague:

The landscape of health care delivery is changing as the field embraces increased accountability and transparency of care. An essential element to transform America's health care is a strong collaborative relationship between hospitals and physicians. To foster that collaboration, the American Hospital Association (AHA) launched the Physician Leadership Forum (PLF) in 2011 as a way for physicians and hospitals to advance excellence in patient care. Through the PLF, the AHA works closely with the medical community to identify best practices to deliver value-based care. The PLF also offers physicians a unique opportunity to participate in AHA policy and advocacy development process.

This guide, *Team-Based Health Care Delivery: Lessons from the Field*, describes the core concepts of team-based care and features case studies on how three organizations approached fostering team-based care. The guide also includes a listing of additional resources.

We welcome your suggestions and feedback. Please contact us at [physicianforum@aha.org](mailto:physicianforum@aha.org). To learn more about other resources and educational opportunities available through the PLF, visit [www.ahaphysicianforum.org](http://www.ahaphysicianforum.org).

Sincerely,



Rich Umbdenstock  
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## Executive Summary

Health care is facing rapid fire change which will require broad reforms in health care delivery. Changing demographics, increasing rates of chronic disease, advances in medical science, health information technology's ability to make care safer and more efficient, skyrocketing costs and the short- and long-term impacts of the *Patient Protection and Affordable Care Act* (ACA) all are strong drivers for reform of the entire system.

As the Institute for Healthcare Improvement put forth in 2007, improving health care delivery in the United States require a focus on three areas:

- improving the experience of care,
- improving the health of populations, and
- reducing per capita costs of health care.<sup>1</sup>

As health care financing moves from volume-based to value-based payments, clinicians will be required to work in inter-professional teams, coordinate care across settings, utilize evidence-based practices to improve quality and patient safety, and promote greater efficiency in care delivery. The health care system will need to adapt to support these changes and hospitals, health systems, and health care providers will need to acquire new competencies and work more closely together than before.

### AHA's Physician Leadership Forum

Recognizing that better collaboration with physicians is critical to improving health and health care in our communities, and that hospitals now employ approximately 20% of all doctors, the American Hospital Association (AHA) Board of Trustees formed a task force in 2010 to provide advice in identifying resources and engagement strategies specifically for physicians who work closely with hospitals. The task force recommended that AHA adopt four engagement strategies: education, quality and safety, leadership development, and advocacy and public policy. In 2011, the AHA's Physician Leadership Forum (PLF) launched with educational offerings, resources, and leadership development opportunities for physicians, as well as options for input on issues of public policy and advocacy.

### New Modes of Care

There are several models and modes for fostering the team-based care delivery that will be needed to care for our communities in the future. Most can be divided into redesigns to primary care delivery, new team-based models of inpatient care, and co-management arrangements where clinicians and administrators work together to improve quality, reduce costs and raise the value of health care. In addition, several health systems have undertaken efforts to reduce practice variation within their systems through team-based models and standardize high-value care.

### Achieving Team-Based Health Care Delivery

As part of its educational outreach, the PLF hosted a learning session in conjunction with the Health Forum/AHA Leadership Summit entitled *Achieving Team-Based*

*Health Care Delivery.* This special session provided an opportunity for hospital leadership teams to hear from three different, leading-edge health care organizations about their approaches to fostering team-based care:

- AtlantiCare Health System shared the success of the Special Care Center, a patient-centered medical home developed for individuals with chronic conditions;
- Brigham and Women’s Hospital developed the Integrated Teaching Unit to increase time for learning among residents, improve communication and collaboration, and reduce costs; and
- Marquette General Health System described their transition from traditional medical departments to co-managed service lines encompassing a broad spectrum of staff.

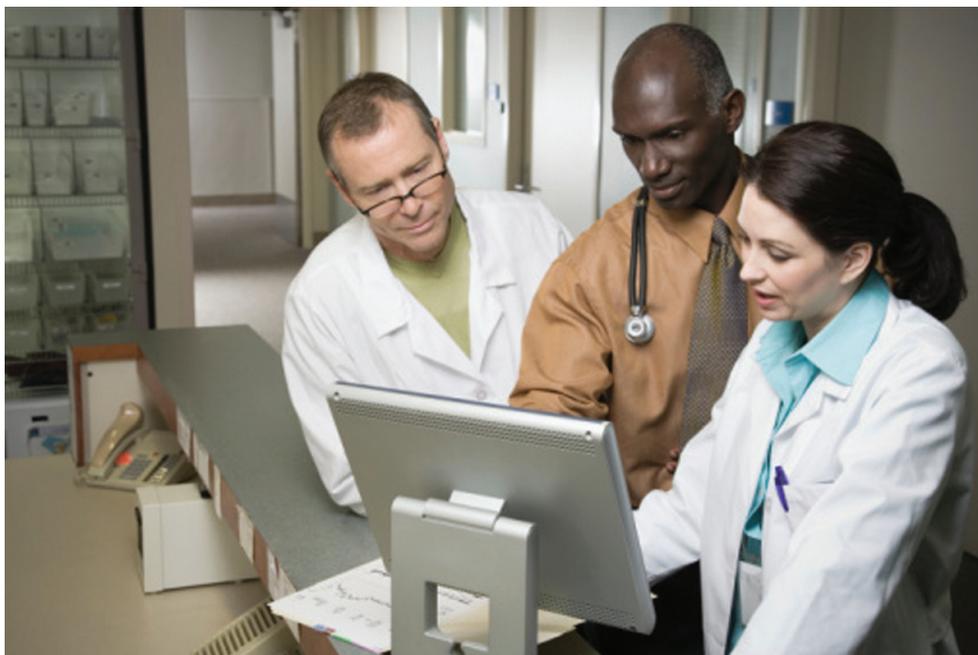
Across the three examples, several common themes emerged. To be effective, teams need to be inclusive and designed from the bottom up; equally important, they

require strong senior leadership support to manifest fully. Data was the second key theme—the need for clear, accurate data that all team members can understand and make their own. Third was the need for education and training in how to be a team. Finally, the most important lesson to emerge may be its simplest—if you can reach what makes people passionate, you can motivate them.

### **Lessons from the Field**

The following guide contains a literature review outlining the current models being employed to deliver team-based care as well as in-depth reviews of three examples from AtlantiCare Health System in Egg Harbor Township, NJ, Boston’s Brigham and Women’s Hospital, and Marquette (MI) General Health System.

For more information about these programs or the Physician Leadership Forum, please visit our website at [www.ahaphysicianforum.org](http://www.ahaphysicianforum.org).





# Achieving Team-Based Health Care Delivery: Care Models

## Factors for Change

Health care is facing rapid change and accountable care organizations, payment bundling, and other programs are pushing hospitals and physicians closer together. From large systems to small community hospitals, physicians are increasingly involved in the governance and operational processes of hospitals, while hospitals are more often becoming owners/managers of medical group practices or employers of physicians. *The Patient Protection and Affordable Care Act of 2010* (ACA) lays the groundwork for new ways of organizing, delivering and financing care, leading hospitals and health systems to look for ways to more closely align with physicians. “That’s because aligning financial incentives between hospitals, physicians, and other care providers may be the only way to meet the demands of new care contracts.”<sup>2</sup>

Meanwhile, many physicians, tired of the non-clinical aspects of running a practice, or driven by reimbursement changes are looking for employment from hospitals. “Jack Lewin, CEO of the American College of Cardiology, says that in the past year about half of all cardiologists in private practice have become employed, mostly by hospitals. The trend is driven almost entirely by Medicare’s drastic cuts in payment for services in outpatient offices<sup>3</sup>...” A March 2010 survey from the American Hospital Association showed 65% of hospitals planning to increase the number of employed physicians, while the Medical Group Management Association says the number of practices owned by hospitals has increased 40% from 2003 to 2010.<sup>4</sup> Add to the financial challenges of running an independent practice, the current physician workforce is looking for more work-life balance through steady hours and is more open to employment models.

The 1990s saw a push for closer alignment between physicians and hospitals as more hospitals took on risk management and bought many physician practices to bring all aspects of the care continuum “under one roof.” As the assumption of risk by hospitals and other health care providers became more difficult to sustain, hospitals divested themselves of medical practices. This was followed by physicians expanding into outpatient surgery centers and specialty hospitals, often in direct competition with community hospitals. With the passage of the ACA,

the move again is toward closer integration and alignment of physicians and hospitals through coordinated payments and accountable care. At the same time, the economic climate and the outlook of a new generation of physicians is moving the physician community toward employment and joint venture models to increase financial security and meet their work/life balance goals.<sup>5</sup>

This time, as outlined by the PricewaterhouseCoopers (PwC) report, *From Courtship to Marriage*, trust and partnership need to be defining factors in renewed relationships between hospitals and physicians. To reach the goals of the ACA of more coordinated and accountable care, hospitals and physicians will need to manage costs and clinical quality together.

Nearly three fourths of physicians surveyed by PwC are already in financial relationships with hospitals, and more than half said they want to move closer financially.<sup>6</sup>

Primary care is changing as increasingly physicians are managing patients with multiple chronic conditions, where care coordination is essential to reducing costs and acute episodes.

The exponential increase in medical knowledge and the potential of information technology to help manage care and communication pose challenges and opportunities for health care providers, while workforce shortages among primary care providers is driving new ways to provide care including through teams. At the same time health care is embracing systems theory to improve quality and patient safety, which emphasizes health care as a team-based activity.

## Team-Based Care Delivery

Teams, and their influence on the success of organizational outcomes, have been increasingly studied over the last 20 years. Models from aviation, the military, manufacturing and management have been described in numerous books and articles and efforts have been made to adapt teams to the health care environment. While success has been seen in the health care setting with teams in specific settings, such as rapid response teams in inpatient care, a broader approach to team-based care delivery is not yet in wide use.

However, efforts around building team-based care can be found in primary care, inpatient hospital care and in co-management of hospital service lines. Increasingly, primary care practices are using patient-centered medical home and chronic care management models to better serve the full population. Meanwhile, hospitals are looking at ways to improve collaboration and team-based care through inpatient care teams and co-management of service lines.

### Team Training

The Agency for Healthcare Research and Quality (AHRQ), in a 2005 study, found evidence that team training improved patient safety and led to a reduction in medical errors. AHRQ concluded that effective teams required team members' willingness to collaborate toward a shared goal and strong communications skills within the team as well as sufficient organizational resources to sustain the team's work. The researchers identified three types of competencies that are critical for effective teamwork:

1. **Teamwork-related knowledge** — understanding the skills and behaviors needed for an effective team and how they are manifested in a team setting.
2. **Teamwork-related skills** — the learned capacity to interact with other team members.
3. **Teamwork-related attitudes** — internal states that influence a team member's decision to act in a particular way.<sup>7</sup>

*A team's utility and efficiency is tied directly to its team members and their ability to integrate various personal and situational characteristics. Each team member must understand the technical and tactical considerations of the assigned task, as well as the strengths and weaknesses of their teammates. In addition to carrying out their own responsibilities and altering them when necessary, each member must also monitor their teammates' activities and diffuse potential team conflicts. Effective teams exhibit these competencies while maintaining a positive emotional attitude toward the team itself.*<sup>8</sup>

The 2005 study concluded that there was not yet an existing model for team performance in health care, but that the science of team performance and training could

help define a comprehensive model that would improve patient safety through effective teamwork. The report also found that while training methods exist in other industries, more tailoring is needed to adapt these training methods to the medical field and more work is needed to imbed teamwork training into the education of health care professionals.

### TeamSTEPPS

Created by the AHRQ and the Department of Defense, TeamSTEPPS (or Team Strategies and Tools to Enhance Performance and Patient Safety) is an initiative aimed at improving teamwork in health care settings. Since its launch in 2006, more than 1,500 organizations and 12,000 individuals have participated. TeamSTEPPS teaches caregivers to understand one another's roles and responsibilities and ways to collaborate to improve quality and patient safety. The training program focuses on four competencies, leadership, situation monitoring, mutual support and communication, but goes beyond general health care team needs to include a set of tools for customizing the team performance based on the needs of the team.<sup>9</sup>

SSM Healthcare in St. Louis implemented TeamSTEPPS in October 2007 and has trained more than 400 physicians and 11,000 nurses and other clinical professionals to date, and each of its 13 hospitals has a trained unit. As part of the effort to improve patient safety, SSM has found collateral improvements in communication and stronger teamwork in the trained units.<sup>10</sup> In a 2008 study published in *The Joint Commission Journal on Quality and Patient Safety*, an evaluation study showed significant increases in the quantity and quality of pre-surgical briefings and the use of quality teamwork behaviors during cases as well as increases in patient perceptions of a culture of safety and teamwork as a result of TeamSTEPPS training.<sup>11</sup>

### Typology of Health Care Teams

Reviewing how teams work in three different internal medicine practices, researchers found that physicians practiced in isolated "frantic bubbles" quickly moving from one patient to the next in an artificial structure of 15-minute appointments that did not meet their or the patients' needs and kept the physicians isolated from their colleagues. Meanwhile, their team functioned as a flexible unit, jumping in to cover roles across the team as

needed and was in constant communication. Patients were labeled as being “in limbo,” often unaware of wait times or what to do next when finishing an appointment. Given the current payment system, they observed that “to the extent that the entire practice team does come together, it is around physicians and facilitating their schedules, rather than around patients and their experiences.”<sup>12</sup>

In the *Health Care Management Review*, Pamela Andreatta, MD, described a typology for health care teams, arguing that health care teams are more complicated than non-health care teams and that team-based models from other industries might not translate without significant modification to the health care setting. In her typology, she divided teams into four types—based on whether team member roles were variable or stable, and whether team members were variable or stable. Health care is hampered by the fact that most team models from other industries assume stable personnel and stable roles, which is not the case for many health care settings, especially inpatient care. In addition, team competencies vary by team type, so what might be critical for a team with stable personnel might not achieve maximum efficiency when the personnel are variable. “It is likely that critical competencies for a specific health care team are a function of the team itself, influenced by the degree of required cross-functional coordination of role behaviors and variably dependent on the contextual aspects of the patient care environment.”<sup>13</sup>

## Team Building

In his 2007 study of teams in 15 primary care practices, Thomas Bodenheimer, MD, defined the key elements of team building as follows:

- **Defined goals** — overall organizational mission statement and specific, measurable operational objectives
- **Systems** — clinical and administrative
- **Division of labor** — clear definition of tasks and clear assignment of roles
- **Training** — for the functions that each team member regularly performs and cross-training to substitute for other roles
- **Communication** — structures and processes

His study found that team size, handoffs, personalities, financial incentives for more versus less care, scope-of-work dilemmas, and the varied nature of clinical problems in primary care, make team building in the primary care practice especially challenging.<sup>14</sup>

Dr. Bodenheimer found two key elements among the 15 examples he studied, “defining and changing the job descriptions of people on the team, and determining how the team members interact with one another.”<sup>15</sup> Every practice established new job categories and either altered the definition of existing categories or changed the tasks performed, and most made changes to the traditional hierarchy of medical practices. All practices also found ways to change the traditional 15-minute physician appointment through various methods including expanding the roles of other caregivers and expanding visits with pre- or post-appointment consultations, between visit contact and community-based care.

Dr. Bodenheimer describes his “teamlet” model for care delivery based on the features he saw in the 15 primary care practices he studied. The teamlet model moves from a traditional 15-minute visit with a clinician, to a clinician and health coach providing care together, with the health coach conducting the pre-, post- and between visit care in conjunction with the clinician.<sup>16</sup>

In his study, Dr. Bodenheimer showed that team-based care delivery led to better clinical outcomes and improved financial performance. Team training has helped to improve working relationships, improve the care teams’ understanding of each other’s roles and skills and increased job satisfaction according to several studies.<sup>17</sup>

However, team building needs to begin at the educational level to maximize the potential for collaboration. As shown by the work of the Institute of Medicine<sup>18</sup> and others, the current professional preparation of the health care workforce results in silos of training with little interaction or teamwork until residency and clinical practice. Without a clear understanding of the roles, skills and abilities of the full team complement, health care providers cannot form effective teams. In addition, differences in perspective, communication patterns, protocols and attitudes may lead to different recommendations for patient care. “This is in part the result of segregated professional education where discipline-specific perspectives, methods, vocabulary,

cultures, and identities become enmeshed in clinical practice and create challenges for interdisciplinary work.”<sup>19</sup>

### **Patient-Centered Medical Home**

Patient-centered medical homes are a redesign of primary care delivery which is showing success in building partnerships between patients and providers that improve patient satisfaction and have been linked with improved health behaviors<sup>20</sup> and outcomes<sup>21</sup>. In a recent survey reported in *Health Affairs*, patients with serious or chronic illnesses around the world were surveyed and found that those being seen in primary care practices that used elements of the patient-centered medical home felt their care was more coordinated and reported fewer medical errors.<sup>22</sup>

Several key factors to creating a provider team that meets the needs of patients and works effectively together to deliver care include linking the patient and provider team as partners in care management, clearly defining roles for all members of the team to reflect their skills and abilities, cross-training team members to maximize flexibility, and a commitment across the board to team building and the communication strategies needed to maintain strong teamwork.<sup>23</sup>

These approaches usually require substantial changes in administration, including rewriting job descriptions and human resource policies to ensure that incentives and expectations are aligned, as well as additional resources to facilitate communication through co-location and information technology. Teams also need strong leadership to ensure they are working effectively, so additional training and mentoring might be required for the clinician leading the team. Finally, once a redesign is in place, monitoring, ongoing training and assessments need to take place to ensure continued commitment to a new way of doing business.<sup>24</sup>

From 2006 through 2008, the first demonstration project involving transforming 36 traditional primary care practices into patient-centered medical homes was conducted. Lessons learned from these 36 practices show that the transformation process is not a quick one and requires significant changes in organizational structure as well as attitudes about how care should be delivered and by whom.<sup>25</sup> Across the practices, two years was not sufficient time to implement all the components of a patient-centered medical home. The demonstration

showed that putting discrete model components, such as disease registries, into place were significantly easier than modifying existing behaviors and roles to use the new components to full efficacy. Changes in how physicians within the practice saw their roles also were very difficult to implement, “. . .the current practice paradigm largely views team-based care as physicians’ delegating tasks to others to streamline the work of the practice and make the physician more efficient. Instead, medical homes need to embrace teams that work virtually and ‘asynchronously.’”<sup>26</sup> Challenges were also found in interoperability of health information systems and the ability of health information to be accessed and used to manage population health.

Part of the move to patient-centered medical homes for primary care practices involves their relationship to the other components of the health delivery continuum and to the payment system. As the patient-centered medical home model continues to gain successes in managing patients’ health, the medical home will need to have strong collaborative relationships with hospitals, nursing homes, specialists and other community resources to ensure seamless coordinated care for the patient. Health information technology will need to form a strong backbone to this coordination. Finally, payment reform discussions will need to consider how reimbursement can best support the patient-centered medical home model.<sup>27</sup>

According to the example of Clinica Family Health in Colorado, patient-centered medical homes “can be constructed out of three fundamental building blocks—continuity of care, prompt access to care, and care provided by teams—and the ways in which primary care practitioners (physicians, nurse practitioners [NPs], and physician assistants [PAs]) adapt to the resulting changes in their work life.”<sup>28</sup> In Dr. Bodenheimer’s look at Clinica’s model, he points out that while creating continuity of care is a challenge, even harder is maintaining prompt access to care. To reach the goals of continuity and improved access, clinicians at Clinica have accepted a truly patient-centered approach to care and have seen this approach benefit their patients. In addition, Clinica has moved from a doctor-based model to a team-based model, with a team that includes primary care practitioners, medical assistants, a registered nurse, case manager, behavioral health professional and medical records and front desk staff. Designated team members

handle most preventive and much of the chronic care by reviewing records and finding those patients overdue for preventive services. As much as possible, the primary care practitioners focus their work on the complex diagnoses, with nurses, medical assistants and others handling routine infections, immunizations, and chronic care management for the team's panel of patients.<sup>29</sup>

To allow these changes to proceed smoothly, Clinica's care teams redesigned workflows and clearly laid out who would perform what functions and for whom, clearly defining job roles for both administrative and routine clinical procedures, with the goal of standardizing guideline-driven care while dividing responsibility among team members. "For clinicians to accept this shift from 'I' to 'we,' team members must have their roles authorized through protocols and be trained to perform them competently."<sup>30</sup>

### Chronic Care Model

Another change emerging in primary care delivery is an increased focus on chronic care—targeting specific diseases such as diabetes, asthma, and hypertension—by using population health management tools, treatment plans, self-management support, and registries to reach out to those patients with ill-managed disease. As the population ages and the number of people living with one or more chronic conditions increases, successful chronic disease management will need a coordinated, multidisciplinary team approach. Many patient-centered medical homes include a chronic care model as part of their management of the larger patient population. But while a care team within primary practice might not involve significant contact with outside practices, "effective team care for chronic illness often involves professionals outside the group of individuals working in a single practice."<sup>31</sup>

In a 2009 *Health Affairs* study looking at the management of patients with chronic heart failure, the authors found strong evidence that primary care programs using a multidisciplinary team approach to chronic care management and using in-person communication achieved a significant reduction in readmissions.<sup>32</sup>

At Martin's Point Health Care, a not-for-profit health system in Portland, Maine, reorganizing primary care practices into patient care teams, as well as the use of population health management tools to target hypertension, has resulted in significant gains in

controlled hypertension among patients. Essential to Martin's Point's success has been the careful design of the care teams around the models mentioned above, as well as equipping the team with tools that allow them to assess the patient population, extract data on patients' health and provide methods for reviewing the data to find areas for improvement. Martin's Point uses registries to seek out the patients who are having difficulty managing their conditions and identify strategies to allow these patients to better manage their condition. As with the patient-centered care team model, staffing increases are needed to best manage the population health management efforts, but are currently not reimbursed under the fee-for-service model. However, through its own health plan, Martin's Point is developing a new payment model that will better align to the care delivery innovations they have undertaken.<sup>33</sup>

### Interdisciplinary Inpatient Teams

While surgical and rapid response teams have long histories in health care, they are defined by clear roles with a narrowly delineated set of tasks to be performed, resulting in team members being interchangeable within their roles. Beyond the scope of these specific teams, inpatient interdisciplinary teams are not as widespread. Despite the fact that in primary care practices the team remains relatively static, hospital care provides a challenge because shift changes and rotations can result in teams varying several times a day during a patient's hospital stay.

The High Performance Teams and the Hospital of the Future Project, created by the American College of Physician Executives, the American Hospital Association, the American Organization of Nurse Executives and the Society of Hospital Medicine, is a collaborative learning effort to redesign inpatient care delivery to provide optimal value. The organizations identified several barriers to teamwork in hospitals, including:

- large team size,
- variability in team membership depending on the patient, shift, or rotation schedule,
- geographic dispersion of team members throughout the hospital and in private practice,
- lack of training on interdisciplinary communication and teamwork in professional training,

- steep hierarchy leading to difficulty in questioning decisions made by other team members, and
- health information technology's ability to allow for asynchronous communication reducing feedback and interaction.

The team found several examples of interventions that proved promising in reducing these barriers and improving teamwork, including:

- co-localization of physicians within the units allows for increased frequency of physician-nurse communication,
- daily goals-of-care checklists provide structure to interdisciplinary discussions and ensures input from the full team,
- teamwork training programs offer structure and tools to improve communication behaviors, and
- interdisciplinary rounds allow a forum for regular communication across professions.

These interventions have the potential for significant changes to the inpatient care model, however, they can fail to improve teamwork if not implemented with full team support and resources. For example, while co-localization can improve communication frequency, without training in communication methods and team building, difficulties may continue. Similarly, checklists and interdisciplinary rounds need to be structured and require leadership to organize and facilitate discussions.<sup>34</sup>

### Co-Management

Under co-management arrangements, physicians become more engaged in the day-to-day operations of the hospital and are integrated into the strategic planning process. These types of arrangements allow “a hospital to contract with physicians and give them greater input and authority of over quality and operational improvements. In exchange, physicians can be compensated for their role in managing a given service line as well as for the achievement of certain performance metrics.”<sup>35</sup> At Genesys (MI) Regional Medical Center, they are seeing increased patient satisfaction as well as increased physician involvement and engagement.

### Reducing Practice Variation

Intermountain Healthcare, an integrated delivery system based in Utah and Idaho, began over two decades ago to

look for ways to improve quality as a lever for reducing costs. As they investigated practices within their own system, Intermountain found that measuring and understanding ways to reduce variation in practice led to improvements in quality and reductions in cost. The study showed that by reducing the possibility of variation in processes, the health system was able to increase quality and reduce cost. Establishing protocols and checklists to standardize key processes allowed everyone on the health care team to participate and keep unnecessary variations at bay.<sup>36</sup>

Intermountain also changed the clinical management structure by pairing a part-time physician leader with a full-time nurse administrator into a clinical leadership dyad to oversee the care delivered in each region. By meeting monthly with the physicians and nurses providing care in each region they are able to review the data on clinical, cost and service outcomes. The dyads also meet as a group to address improvement opportunities and share possible solutions and successes.<sup>37</sup>

### Achieving Team-Based Health Care Delivery

In today's dynamic health care environment, hospitals and health systems require high performing leadership teams to guide the complex changes needed to further unite high quality and high efficiency in the next generation of care. A special educational session held in July 2011 and co-sponsored by the AHA's Physician Leadership Forum and American Organization of Nurse Executives, afforded an opportunity for hospital leadership teams to hear from three different, leading-edge health care organizations about their approaches to fostering team-based care.

David Nash, MD, founding dean of the Jefferson School of Population Health and professor of health policy at Thomas Jefferson University in Philadelphia, delivered the keynote address. Dr. Nash spoke about the need for hospitals to do a better job grooming physician leaders and the move toward team-based care. The program also included case examples from AtlantiCare Health System, Brigham and Women's Hospital, and Marquette General Health System.

AtlantiCare Health System shared the success of their Special Care Center (SCC), a patient-centered medical home developed for individuals with chronic conditions. AtlantiCare created the SCC four years ago in

collaboration with their largest payer, and has served 1,800 patients to date. The SCC has resulted in reduced hospital length of stay, readmissions, and ER visits.

Brigham and Women's Hospital created their Integrated Teaching Unit (ITU) for three reasons—to increase time for learning among its residents, to improve communication and collaboration among personnel, and to cut down on costs. In its short existence, the ITU has proved successful, showing signs of reducing in-patient mortality, length of stay, and readmissions while increasing educational value and satisfaction among attendings, residents, and nurses.

Marquette General Health System described their transition from traditional medical departments to co-managed service lines. These service lines cross traditional department and clinical lines, meeting on a regular basis to discuss the management of each service. The groups encompass a broad spectrum of staff, including not only from the clinical side, but business and information technology as well. Robust data and a focus on the best outcome for the patient have led to success across the service lines.

Across the three examples shared at the program, several common themes emerged. To be effective, teams need to be inclusive and designed from the bottom up but need strong senior leadership support to manifest fully. Team members need to understand the benefits of the new model for patients and for themselves, and must be thoroughly grounded in strong communications. Everyone, regardless of role or position, should have equal weight in team discussions around patient care, and team-building exercises were found to be beneficial in creating the trust and camaraderie that fosters good communication.

Data was the second key theme—the need for clear, accurate data that all team members can understand and make their own. Timely measurement of results and feedback allowed the teams to function effectively, and the teams used the data generated to work together to refine, understand, and improve service.

Third was the need for education and training in how to be a team as well as sharing details about the other aspects of health care, whether it was educating teams about Medicare payment policies, hospital costs, or teamwork and communication. Finally, the most important lesson to emerge may be its simplest—if you can reach what makes people passionate, you can motivate them.







## AtlantiCare Health System

### Overview

When a small percentage of people account for the majority of health care spending, something has to change. Thus began AtlantiCare Health System's journey toward creating the Special Care Center (SCC), a patient-centered medical home developed specifically to improve care while reducing expenses for patients with chronic conditions, in line with AtlantiCare's core competency around health engagement. AtlantiCare is southeastern New Jersey's largest health care organization and largest non-casino employer. It employs more than 5,100 people and 600 physicians across almost 70 locations, including its regional medical center, a 576-bed teaching hospital with campuses in Atlantic City and Pomona, New Jersey. In 2009, AtlantiCare won the Malcolm Baldrige Award, the nation's highest presidential honor awarded to organizations for quality and organizational performance excellence.

The need for change began when a local union representing a majority of the city's workers reached out to AtlantiCare's CEO. The union was concerned about rising health care costs, which had nearly doubled over the past decade, a cost they did not want to pass on to their members. The union had determined that a large portion of their health care costs were related to a small portion of their members with chronic conditions. Once they began to investigate, AtlantiCare realized that their own employee health plan was struggling with the same issue, with 10% of its membership in the employee health plan accounting for 70% of the claims. As part of their strategic planning process, AtlantiCare decided to make an investment in their own employees and in their skill sets and capabilities for what care might need to be like in the future.

AtlantiCare and the union pooled resources to form a steering committee to determine how to reduce costs for this population with chronic conditions and high costs. The steering committee spent a year designing the center, which officially launched in August 2007. In its short existence, the SCC has improved patient outcomes, slowed the annual rate of cost increases for the

employers and member participants, and increased patient satisfaction.

### Design and Implementation

To get the center started, AtlantiCare President and CEO David Tilton handpicked AtlantiCare members of the steering committee for their ability to work in teams and to innovate, as well as those who were familiar with AtlantiCare and its culture. The committee also included union leadership, which could provide analysis of claims data, as well as consultants from across the country with expertise in chronic care management. Everyone gathered in a room, and starting from scratch, they began to work out the basic design of the center. Some committee members travelled around the country observing different sites and best practices. This planning phase lasted a year and as a sign of their joint investment in the center and finding a better way to deliver care to their chronically ill employees, AtlantiCare and the union health plan shared the cost of the center.

AtlantiCare at a glance	
Location	Egg Harbor Township, NJ
Number of beds	576
Number of employees	5,170
Number of physicians	600
Number of annual inpatient admissions	30,400

The first priority for Sandy Festa, LCSW, administrative director of the SCC, was picking the staff and clinical team who would provide the care. The steering committee decided on a team-based care model made up of physicians, nurse practitioners, health coaches, social workers, pharmacists, behavioral health clinicians, and administrative/clerical staff to run the center. To ensure a highly functioning unit that manages costs and improves care, the center adheres to several key principles, including all staff operate at the top of the scope of their license and ability and all are accountable for the triple aim (population health, experience of care, and per capita costs). The care team starts each day with a huddle where issues affecting that day's patients are discussed. This activity ensures that all patient care is coordinated and no one falls through the cracks. The

huddle is also a place where team members can challenge one another in a thoughtful way on the priorities/responsibilities of that day.

Patients are recruited in several ways. Some are enrolled by invitation or application, based on chronic conditions with a predicted high cost for care. Others are recruited via worksite screening events, claims data mining, and outreach to hospitalized patients. Some are found by word-of-mouth communication to certain ethnic communities. Lastly, some patients are referrals from other satisfied patients.

The patients at the SCC reflect the community composition. While the center maintains staff fluent in eight different languages, the majority speak either English or Spanish with a significant percentage speaking Hindu/Gujarati. The average patient has 2.2 chronic conditions, with hypertension (74.1%), diabetes (55.9%), and high cholesterol (42%) being the most prevalent.

### How It Works

On their first appointment, new patients are scheduled for a one-hour visit with a physician and health coach, where a plan of action is created. Existing patients are scheduled for a half-hour visit, twice as long as the average at most practices. Patients receive ongoing care in a variety of forms, including phone communications, hospital and home visits, and group wellness sessions. All patients have constant access to a medical provider. Almost all of the health coaches are bilingual and are matched to their patients based on language and culture. Each health coach manages around 150 patients with the primary responsibility of ensuring patients meet their goals and follow their care plans. The coaches proactively help patients manage their care and navigate the health care system. All patient education materials are translated into several languages.

clinical notes in the SCC's electronic medical record system, which allows each team member to call up a patient's chart at a moment's notice. Communication is integral to the SCC. For example, any irregularities in how a patient fills a prescription (either too early or too late) could lead to a serious health problem or a costly visit to the emergency department. Given the focus on coordinated care, SCC's pharmacy is able to note the irregularity and contact the patient's physician to discuss the problem and develop a plan for early intervention.

The SCC has also partnered with and integrated specialists into the model. The center's medical director, Ines Digenio, MD, a pediatrician and family medicine physician, made sure the specialists in the community knew the type of coordinated care and communication that would be required of them. When an SCC patient is referred to a specialist, the physician is sent a detailed report of the care received at the SCC. In turn, specialists who see SCC patients send the SCC a report on the care they provided the patient. By having developed a clear and detailed set of information to be provided to specialists, and clear direction on how and when reports are expected back to the SCC, care coordination is maintained.

### Challenges

One of the biggest challenges the group faced was finding the right physician to lead the clinical team during this transformation. AtlantiCare wanted a physician who could not only delegate, but also would be comfortable coaching, counseling, and educating patients. AtlantiCare conducted a national search, but while the initial individual selected was an excellent physician, adapting practice habits to the new model presented too large a barrier and resulted in a need to re-recruit for the position. Another challenge the group faced was the learning curve associated with providing team-based care. Most of the people recruited to work in the center had been working under a traditional care model. It took team building, education, diversity and complex management in order to get members functioning cohesively as a team.

"You can't take a physician who's only done traditional volume-based practice and plunk them into this totally different environment," said Katherine Schneider, MD, senior vice president for health engagement at AtlantiCare Health System. "You can't take a medical assistant who's traditionally worked in a practice that's very task based and plunk them into this environment. It's a different mindset."

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*"You can't take a medical assistant who's traditionally worked in a practice that's very task based and plunk them into this environment. It's a different mindset."*

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Other characteristics of the SCC include guaranteed same-day sick visits, waived copayments for both physician visits and prescriptions filled at its on-site pharmacy, integrated mental health and substance abuse treatment, nutritional counseling, and the storing of all

To encourage success, Festa said the hiring team was up front with potential employees about how the model worked and how they were expected to perform. Festa said the model is an accepting environment where patients are always the center of everything they do. This philosophy starts with the morning huddle and is carried with the team throughout the day.

There was some initial fear that primary care physicians in the community wouldn't be open to referring their patients to the SCC. AtlantiCare was attempting to institute a new way of providing care to the community and realized they needed to reassure the local primary care community that the intent of the SCC was not to poach their patients, but provide an intensive care setting to help them succeed. AtlantiCare emphasized that these physicians would be able to back fill any loss in patients with those who graduated from the SCC and would need to move back to a primary care setting. There was a lot of communication from AtlantiCare, as well as the union health plan, around the benefits for their community and physicians' practices.

Electronic medical records, as they related to population management, were also a challenge. There was fragmentation in the system with a lack of data exchange among the insurer, the pharmacy, the provider, and the hospital. Margaret Belfield, RN, chief operating officer of AtlantiCare Regional Medical Center, was surprised at the disconnect among AtlantiCare's IT systems. She said they had difficulty recognizing patients from the SCC within their own hospitals on occasion and needed to focus on ways to streamline their IT systems. Belfield said they're still working on a system that can gather/bring all of the data on a patient together in one system.

In addition to finding the right physicians and reaching out to the existing physician community, both the hospital and the union health plan were responsible to their governing boards for the risk taken in creating the SCC. Not only did the partnership between provider and payer need to be based on trust, both groups were taking a leap of faith that this care model would not only improve care, but reduce costs.

"The person who's in charge of the fund is a nurse by background, I am a nurse by background, Sandy is a social worker, so at the end of the day when things got tough, it was very easy for all of us to agree that it [the

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*"It's always a challenge really educating and communicating about something that is so different, even when it's going on 10 feet away."*

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SCC] was the right model of care for patients and move forward together," said Belfield.

Building patient trust was a challenge too. The SCC could provide the patient all the resources, but it was ultimately up to the patient to comply with the care model. Through the model and the intensive interactions, the SCC physicians and health care coaches were able to build trust and make the patient a true partner in care delivery.

Finally, communication about the program, including to AtlantiCare's own staff, has been challenging as well. The program has received national publicity and numerous awards, but there isn't a day that goes by where Dr. Schneider doesn't hear from an AtlantiCare employee that they've never heard of the SCC.

"It's always a challenge really educating and communicating about something that is so different, even when it's going on 10 feet away," Dr. Schneider said.

### Successes

The SCC is truly a success story. Some of the goals they've been able to achieve are:

- Employing evidence-based care in a culturally individualized manner to patients and their families.
- Changing the payment system, using information technology, health literacy, culture, space, and staffing to better serve patients.
- Uncoupling revenue from traditional fee-for-service model.
- Empowering multidisciplinary care team to innovate and provide holistic, individualized support for health and healing.

Independent analysis by researchers at Harvard Medical School showed that net health care costs in the first year for patients enrolled in the SCC were:

- Down by at least 12.3%; and
- Driven mostly by a drop of 23% in outpatient procedures.

In addition, SCC participants experienced:

- 41% fewer inpatient admissions; and
- 48% fewer ER visits compared to a set of matched controls.

Clinical outcomes have improved dramatically for all diseases tracked. Uncontrolled blood pressure has seen an average drop of 26 points for patients in the practice at least six months. Diabetic patients who entered in poor control had an average A1C drop of 2.38 points from their intake value. Racial disparities in outcomes have also been erased or drastically reduced for black and Hispanic patients compared to English-speaking white patients. The 30-day hospital readmissions have been between 4-6%. Prescription fill rates are between 97-99%, well above the national rates of 70-80% reported in the literature. Patient satisfaction has also increased. Of those patients surveyed, 59% felt their previous doctor spent enough time with them. At the SCC, this number is 94%. Employee satisfaction has also increased. Belfield said employees see the SCC as a much more fulfilling work environment. They view it as an opportunity where everyone can contribute to better outcomes.

AtlantiCare saw the success of the SCC around care compliance and now offers a value-based benefit design to all its employees with chronic conditions, whether or not they are in the SCC. These employees still have to pay co-pays for visits, but their medications are zero co-pay for certain chronic conditions.

someone back out there and they have to pay a couple hundred dollars each month out of pocket for their medications, they're probably not going to be able to."

The steering committee continues to meet on a periodic basis. They analyze what is and is not working in regards to the center. Tweaks are constantly being made to the care model. The committee has kept things transparent and is still pushing for more improvement and cost savings. The SCC model has proved so successful that AtlantiCare has opened a second center in Galloway Township, New Jersey.

AtlantiCare is also working on exposing their internal medicine residents to the SCC and its care model. Right now, it's a rotation elective, but Dr. Digenio hopes to include the SCC in the internal medicine rotation in the future, to expose future physicians to a team-based model as well as chronic care management.

### Lessons Learned/Advice for Others

According to AtlantiCare, one of their biggest lessons learned was making sure to have the right team in place from the start. Along with that, leadership must be willing to make quick decisions, especially if something is not going right. The group stressed that continual tweaking of the process must also take place.

"The thing that I learned is that the people who were very successful in working in it have lived it," said Festa. "You almost have to have that team that you're able to pluck out and re-replicate it in another site or environment because starting from scratch just takes too long, along with the skill transfer and culture transfer."

As well, in order to create a center like this, the team feels there needs to be a population health-based payment model in place. There needs to be a balance where one is really managing the population health and not just taking care of the immediate need.

"If you really want to do disruptive innovation, you have to invest in it," said Dr. Schneider. "We're still trying to figure out how we take this capability and make it sustainable for us as an organization as we transform ourselves into an accountable care organization. If it's a shared saving model across the total population, is that going to be sufficient? How do we charge people for this? Is it basically cost plus a little markup, but then how do we recoup our losses on the other side for doing the right thing. This is a big challenge."

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*"If you really want to do disruptive innovation, you have to invest in it."*

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### Future Directions/Sustainability

Moving forward, the AtlantiCare team is still trying to resolve a few issues. First, how to make the SCC sustainable while their organization transforms into an accountable care organization. Second, AtlantiCare is trying to determine how, in the current health care system, to graduate the patients out of the SCC environment. They have begun work on a medical home network around the SCC, but it is fragmented and incomplete. "We can't just take someone and put them back into an environment that they had failed in previously," said Dr. Schneider. "Even with all of the coordinating and education and everything, if you put



## Brigham and Women's Hospital

### Overview

The push for change can arise from the simple acknowledgement that not everyone is happy. Such was the case at Brigham and Women's Hospital (BWH), a member of Partners HealthCare System. BWH is a 793-bed not-for-profit academic medical center located in Boston. Graham McMahon, MD, MMSc, associate professor at Harvard Medical School and a practicing endocrinologist in BWH's division of endocrinology, diabetes and hypertension, noticed, among others, that although internal medicine residents were working hard, they were not having a positive learning experience. The traditional teaching model, with patients scattered throughout the hospital and residents and interns changing rotations off cycle, was creating chaos for everyone involved.

On top of this, the Accreditation Council for Graduate Medical Education (ACGME) reduced resident work hours, resulting in shorter, discontinuous schedules and diminished interaction and continuity of care among team members. This led to concerns about the erosion of the traditional strengths of postgraduate medical education at the hospital.

Because of these concerns, a redesign team was convened and engaged in a process to turn their internal residency program into a new and improved model of care for inpatient service. This model came to be known as the Integrated Teaching Unit (ITU). The program started at the Faulkner Hospital, a community teaching hospital associated with BWH's internal medicine residency program, before moving to BWH's main hospital. Initial results are promising. Over the past five years, the ITU has improved efficiency and quality of care and improved satisfaction among attendings, residents, and nurses. The program has been such a success at BWH that they're looking to expand beyond the medical floor.

### Design and Implementation

BWH completed the initial design and pilot work in a year. The redesign team spent the first eight months gathering and assessing feedback from residents, nurses, the medical

staff, and non-physician staff and designing both the pilot and final team structure and activities. The group designed a team that would work together for one month in a co-located geography and that when it came time for them to rotate, they would move as a group. The five main priorities for this new service were to nurture teams, enhance collaboration, balance patient volume relative to education, dedicate some time to learning, and to provide higher-quality feedback. The group hoped that focusing on these priorities would ultimately improve patient care.

"We sought to apply some sound principles about the way people work together to the inpatient environment," Dr. McMahon said.

Brigham and Women's Hospital at a glance	
Location	Boston, MA
Number of beds	793
Number of employees	15,000
Number of physicians	3,000
Number of annual inpatient admissions	46,000

The committee next shared the results from some initial focus groups with their department chair, Joseph Loscalzo, MD. He agreed to champion the initiative at the hospital level on the condition that the impact of the change was measured in a scholarly way. "Medicine is the biggest admitter to the hospital and the biggest department. Having the chair in medicine articulate on our behalf the need for this investment to the hospital was very key," said Dr. McMahon.

McMahon also had to convince hospital executives, as well as a whole series of groups who were resistant to the idea, particularly some primary care physicians. Dr. McMahon said it wasn't easy telling doctors who admitted to the hospital that they were having their admitting rights changed. Patients would now be admitted to an all-hospital service, with those in the control group maintaining their primary care physician as the attending of record, and those in the ITU group being managed by the team. McMahon and his team held town hall meetings and shared multiple messages with the admitting primary care community to ensure everyone was aware of the changes. Eventually, only a handful of

doctors demanded that they remain the doctor of record for their patients. Those patients were taken out of the research and admitted to a different service.

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*“It seemed like everyone had a reaction to change, and getting beyond that was probably the biggest challenge because change becomes a lightning rod for everything that’s wrong.”*

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Consulting physicians at the hospital was another group that needed convincing. Dr. McMahon said this group was worried about their consulting volume declining because hospitalists, rather than primary care doctors, were going to be driving care. The perception was that primary care would drive more consultations than would the hospitalists, but that turned out to not to be a major issue.

The final four months consisted of a trial phase of one ITU team (two attending physicians and two residents with three interns) where the kinks of the program could be worked out. One hospitalist plus one internist or specialist attending were also assigned to each team. Attending physicians supervised daily bedside rounds with the team for two hours each morning. Residents were instructed to lead the daily walk rounds. Interns used the residents as their first point of contact for questions, and both residents and interns were provided feedback every two weeks. The team saw each nurse’s patients before moving on to the next nurse, and nurses became active contributors to team discussions. All trainees started and ended the four-week rotation at the same time.

A control model, called the General Medical Service (GMS), used the model that had been present preceding the study, comprising two teams, each with one resident, two interns, and multiple supervising attending physicians. One attending physician met with the teams three times a week for approximately five hours but had little to no responsibility for patients under the team’s care. Residents and interns made rounds independently of attending physicians. Nurses discussed patient care decisions with the attending physicians and team daily.

Partners HealthCare’s institutional review board approved the study and the Department of Medicine at BWH provided the funding. Eligible patients included those admitted to either the ITU or GMS service. In order to maintain balance, an admissions coordinator would

take admitted patients and randomly assign them to one of the four teams (two ITU teams and two GMS teams).

The ITU team maintains a set daily schedule, with two hours dedicated to team rounding, one hour for the morning report, another hour for attending/resident teaching, and finally, 15 minutes for interdisciplinary rounds. This structured schedule is presented to the team during orientation week. One of the major resource commitments they initially had to contend with was staffing.

“We were essentially doing these dual attending team services with the balance of the hospitalists with generally a subspecialist who would attend in medicine,” said Dr. McMahon. “Bringing a lot of our subspecialists on board to teach in this manner and to care for patients in general medicine when they might be oncologists, endocrinologists, or rheumatologists was also not the easiest thing in the world.”

The subspecialists were from the Partners system. Dr. McMahon said he approached some of their key subspecialists who were interested in teaching and asked them to come back and do general medicine again with a hospitalist as their ally, with each sharing half of the service. “It’s been great to have a subspecialist come back onto these teams to hear the residents’ perspective and to do teaching with those specialty areas and to expose our residents to subspecialty acumen and knowledge across the whole range of disciplines,” Dr. McMahon said.

Dr. McMahon noted that adding subspecialists to the mix did not add to the bottom line because although they were more expensive to employ as compared to a primary care physician, they were more efficient. Length of stay was shorter, causing the number of labs ordered to be lower, allowing the hospital to turn the beds more quickly and thus generate revenue.

## Challenges

According to Dr. McMahon, the biggest challenge his team faced in designing/implementing the ITU was convincing the medical staff at the hospital it was worth the time and effort to make a change. “The change was perceived to be painful among the medical staff,” Dr. McMahon said. “It seemed like everyone had a reaction to change, and getting beyond that was probably the biggest challenge because change becomes a lightning rod for everything that’s wrong.”

One unforeseen challenge was how the control group residents became very unhappy. Although they were working hard, Dr. McMahon said it was difficult for the control group to see resources directed to the new service and the comparative advantages of the other service, who were working on the same floor with similar patients. While minor tweaks/modifications were made, Dr. McMahon could not do much except to remind the GMS group that in two months they would rotate with the ITU group to make sure there was no bias in allocation. Dr. McMahon stressed that none of this “unhappiness” was perceived by the patients since patient satisfaction scores remained constant between the groups (90.1% overall for the ITU vs. 89.9% for the GMS).

### Successes

On the positive side, one of the bright spots was the early support from the nurses. According to Dr. McMahon, they were the very first champions of the program when it was introduced at the Faulkner Hospital. This same excitement was also found at BWH when they decided to bring the program there. “Graham told us about the pilot at the Faulkner and that they wanted to bring it to the Brigham and were looking for a medical floor,” said Ellen Clemence, RN, nursing director in the ITU at BWH. “I said, ‘When do we start?’ It was just fabulous. It gave us an opportunity to look at a collaborative care model. It was a huge opportunity and we’re still thrilled to have the ITU on this unit.”

Clemence believes the program has been invaluable. Nursing satisfaction has improved drastically. It’s 83% on the ITU vs. 50% for the GMS. Nurses also feel they are contributing more toward a patient’s care (96% on the ITU vs. 50% on the GMS). Clemence said there recently was a minor revolt among the nurses when BWH tried to move the ITU to a different floor.

“The ITU is as much a part of the nursing staff as it is the physician staff,” Clemence said. “We have such tremendous buy in from the nurses and they have such a respect for the ITU service. It’s pretty remarkable.”

Dr. McMahon said another bright spot he noticed was how fast the team members bonded with one another. Creating the right structure allowed the teamwork and collegiality to shine through without much effort specific to team building.

“I was surprised how quickly their relationships were formed on the teams that were brought together,”

Dr. McMahon said. “When you create the infrastructure, the rest of the wonderful things that happen when you bring like-minded people together just happened spontaneously. If everyone is brought together in the spirit of collaboration, people will naturally learn to communicate with each other.”

To nurture team bonding, two team building exercises were created, the simulation lab and the Sackler Art Museum program. The simulation lab allows the members to work in a controlled environment where they can practice their leadership skills and improve the dynamics that come about from working on a team. It also allows them to reflect and debrief on a case in a less stressful situation. In the Sackler Art Museum program, the team visits the Sackler where they use art to explore team dynamics, communication styles, hierarchy, and interdisciplinary relationships. Dr. McMahon believes the museum program creates a sense of openness and vulnerability where members of the team come to respect the value of differing perspectives.

The feedback and data coming out of the ITU have been nothing but positive. As compared to a typical inpatient care model, introduction of the ITU has been associated with:

- Improved teamwork, camaraderie, and higher attending, nursing and resident satisfaction
- Significantly lower inpatient mortality (1.4% for the ITU team vs. 2.2% for the GMS team)
- Significantly lower length of stay (4.1 days for the ITU team vs. 4.6 days for the GMS team) without any increase in readmissions
- Substantially increased time for educational activities (29% for the ITU team vs. 7% for the GMS team)

The service has also proved cost effective. Dr. McMahon estimates the adjusted days saved per patient is 0.3. Savings from unreimbursed direct costs, along with the backfill incremental margin are more than double the incremental costs of staffing the ITU, according to Dr. McMahon.

### Future Directions/Sustainability

According to Dr. McMahon, to keep a program like the ITU going the group must have co-localized space. He says there needs to be additional capacity on the floor where you can adjust staffing up or down as needed. “You

need dedicated teaching space in these geographically protected units, as well as some swing space,” said Dr. McMahon. “If you want people to work together, you need to create space where they can actually sit down at a computer in small groups and work. This creates the kind of conversation you’re hoping for, that people are actually working together in the same room, whether they are nurses or doctors.”

Also, Dr. McMahon feels having an admitting department knowledgeable about resident caps and how patients can be allocated effectively among admitting teams is vital. Equally important to program success is a sufficient volume of nurses able to deliver patient care. Lastly, Dr. McMahon said the whole process needs structure. He said expectations need to be clear, the schedule and organizational infrastructure needs to be clear. The teams receive feedback and are reoriented if there are problems.

Clemence agrees, believing that orientation has been crucial to the ITU’s success. Clemence said when orientation fails to occur in a timely manner during switch week, some of the teams can unravel. Before the new rotation starts, Clemence said it’s critical for everyone to have clear expectations. She said the expectations and schedule allow team members to concentrate on the patient care and teaching part of the service.

### **Lessons Learned/Advice for Others**

Dr. McMahon and his team garnered a few important lessons from this process. One, change is much harder than you think. “It doesn’t matter whether you’re in health care or any other industry, you just can’t introduce change and expect everyone to be a big fan because on the face of it, change is hard,” Dr. McMahon said. “It’s key for managers to acknowledge and sell the plan for change in a way that helps people understand how beneficial the change is likely to be.”

attending on the unit. By engaging the detractors and letting them experience firsthand what it was like to work on the ITU, Dr. McMahon said the opposition began to fall precipitously. “It’s key to try and understand your detractors and pay attention to them because they often have useful things to say, even if everything they say isn’t helpful,” said Dr. McMahon.

Dr. McMahon has a few pieces of advice for those considering something similar at their hospital. First, always seek feedback, especially when things are not working. “Keep measuring so that you can keep people bought in, show that the impact of what it is you’re doing in order to convince people it’s worth their time and efforts to participate in the change,” Dr. McMahon said. Clemence agrees, saying “Clinicians look at data and when you can convince them with data, then you really can get a lot more buy in.”

Second, there needs to be an active manager watching over the teams, making sure they’re working together and if not, able to swoop in and provide guidance. “You can’t just create it and assume it’s going to be self-perpetuating because I think the natural instinct might be for some of the infrastructural things that actually hold the thing together to fall apart very easily,” Dr. McMahon said.

Finally, Dr. McMahon says you have to be perceptive to the teams’ needs and make sure the services are not overloaded beyond their capacity.

“You have to be sensitive to the actual daily needs of the team so that you are making it reasonably feasible for people to round together, to make sure teaching doesn’t overtake the clinical care and vice versa,” said Dr. McMahon.

Overall, it’s the investment in people that is going to determine how well your service runs, according to Dr. McMahon. “You really do need a champion,” said Dr. McMahon. “You need people driving this forward, people that really care. It takes a lot of work, but it is work well worth doing for the organization and our patients.”

For additional information, please visit <http://www.nejm.org/doi/full/10.1056/NEJMsa0908136>

*McMahon, G.T., and others. Evaluation of a redesign initiative in an internal-medicine residency. New England Journal of Medicine;362:1304-1311, Apr. 8, 2010.*

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*“Clinicians look at data and when you can convince them with data, then you really can get a lot more buy in.”*

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Dr. McMahon also said if he had to do it all over again, he would have tried harder to understand the real fears of those who were most vocally opposed to the change. To alter their perception, McMahon said he asked those naysayers to come spend two weeks with them as an



# Marquette General Health System

## Overview

“Some go looking for change; some don’t. Other times change finds you.” Such was the case at Marquette General Health System in Marquette, Michigan. Marquette General is a 315-bed, Level II trauma center with 62 specialties and subspecialties. It serves 12,000 inpatients and more than 350,000 outpatients each year. The health system also includes the Marquette General Medical Group, with 145 employed physicians and 500 staff members providing services in 29 specialties. Their transition to Service Lines began in February 2009 during a meeting between the Medical Staff Executive Committee and the Board of Trustees. At one point during this meeting, guest speaker Joe Bujak, MD, asked Thomas Noren, MD, chief medical officer (CMO), if he could do one thing to change the effectiveness of the current medical staff organization, what would it be? Dr. Noren responded by saying, “service lines.” Dr. Noren explained these Service Lines would bring together people with common interests, experience and expertise, and let them drive progress instead of maintaining the traditional department structure. John Bartlett, MD, Marquette General’s chief of staff at the time, agreed with Dr. Noren and helped set the wheels in motion to develop these Service Lines.

As a new CMO, Dr. Noren saw a few challenges that formed a backdrop to the initial February 2009 discussion on Service Lines. These challenges included transparency of quality data, a shortage of capital, the lack of “connectedness” of information technology, the lack of strong relationships with all colleagues predicated upon collegiality, collaboration, trust, and the courage to be candid, the use of data and evidence to drive decisions, self-scrutiny, and a commitment to performance improvement. When coming up with the concept, Dr. Noren envisioned the Service Lines not only overcoming these challenges, but also tackling the Institute for Healthcare Improvement’s Triple Aim—care, health, and cost.

Going into the project, Dr. Noren and his team realized there would be some impediments to implementation, especially among the physicians. Some of these obstacles included resentment of being measured and compared, a desire for autonomy, working more while being paid less, and the transition to a culture of incremental and tireless improvement. Stressing the benefits early on proved fortuitous to Dr. Noren’s group and the Service Line concept.

## Design and Implementation

Over one weekend, Dr. Bartlett and Dr. Noren crafted a rough draft of their proposed restructuring. They suggested 17 Service Lines based on established disciplines and areas of interest. Additionally, they proposed which hospital and medical staff members would be involved in each Service Line.

Marquette General at a glance	
Location	Marquette, MI
Number of beds	315
Number of employees	2,400
Number of physicians	200
Number of annual inpatient admissions	12,000

Dr. Bartlett and Dr. Noren envisioned the Service Lines as being composed of a broad array of staff members, both clinical and non-clinical, with common expertise, experience, and interests from “both sides of the aisle.” They hypothesized that the Service Lines needed to be inclusive and complement the traditional medical staff department structures. They should be characterized by dynamic brainstorming discussions and rapid action. The Service Lines should also be led by elected medical staff leaders who could generate enthusiasm and eagerness among the group. All members would be held accountable and use data to drive planning and agenda development.

Dr. Bartlett and Dr. Noren took their draft to the Medical Staff Executive Committee, who liked the idea and wanted to test it. At a June 2009 Quarterly Medical Staff meeting, Dr. Bartlett and Dr. Noren presented the Service Line concept to the entire medical staff, asking for feedback. A month later, after gathering all of the

feedback, Dr. Bartlett and Dr. Noren decided to expand to 21 areas, including some non-traditional ones such as women's health, brain & spine, and joint health. Some doctors ended up switching lines, but many asked to be involved in more than one Service Line, feeling that their specialties should be represented in more than one area. The dynamic of each Service Line breaks down as follows:

- Each Service Line is directed by a chief and vice chief, who each are physicians.
- Service Lines each have developed mission, vision, and goal/value statements.
- Service Lines comprise a spectrum of medical and hospital staff members including administrators, program directors and managers, care and quality management representatives, social workers, business and marketing, finance purchasing, nursing representatives, and the Chief Medical Officer.
- Service Lines have standing agendas, which include regular review of Press Ganey Patient Satisfaction scores, Premier Quality Advisor data, the Value Analysis Team actions, and comments from developing Regional Physician Work Team interactions.
- Service Line meetings follow Rimmerman's rule, which states that everyone in the room has an equal voice and all ideas are good until the best one surfaces.
- Service Lines acknowledge a commitment to continuing improvement by using data and candor to dispel complacency.
- Service Lines address "outmigration" by examining both internal (intramural) and external aspects such as a culture of collegiality, best practice quality care, and ease of transfer.

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*"Anything that is marked by change is going to be met by a subset of people who think it's not going to work."*

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After all issues were settled, an introductory meeting for each Service Line was set up. Each line would meet once a month for eight out of the 12 months of the year. Department meetings, which had been monthly, were moved to quarterly, thus not adding any meetings to the

schedule. Each Service Line has its own agenda, which usually contains an educational component. Having an educational component on each agenda has helped Marquette General promote and receive feedback on certain hospital initiatives.

"Our whole 'Safety Double Check' program promoting a culture of patient safety was introduced there," Dr. Noren said. "All of the education about value-based purchasing took place there. Discussions about Blue Cross Blue Shield of Michigan Organized Systems of Care took place in the Service Lines so, in retrospect, they're really critical meetings for educational purposes."

Meetings are also an opportune time to present data collected. Before presenting data to the Service Lines, an ad hoc committee (or subcommittee) reviews the data to make sure what's being presented makes sense and to identify someone in each Service Line to champion the data.

Having ad hoc subcommittees which include members from two or more 'lines' has helped the Service Lines avoid "silos." Other ways Marquette has been able to avoid individualism is by using the Service Line Newsletter, sharing key points from other Service Lines during their meetings, as well as having Service Line chiefs provide updates during the quarterly department meetings.

### **Challenges/Success Factors**

According to Dr. Noren, the biggest challenge they faced when creating the Service Lines was skepticism. Dr. Noren knew their initial messages on the coming changes were going to require a lot of homework and that, if not done and presented correctly, could have caused a major setback to the whole Service Line concept. "Anything that is marked by change is going to be met by a subset of people who think it's not going to work," said Dr. Noren.

In order to avoid this, Dr. Bartlett and Dr. Noren made sure that when they presented their initial idea for the Service Lines, they included inspirational messages of the benefits that would be realized and emphasized that the benefits of participating were worth a gamble. "We went to them [the physicians] and tried to make a compelling case around the fact that we're entering a time of rapid transition and into an age of transparency, evidence-based care, data driven performance improvement, and value-based reimbursement, and

that all of these things were going to be challenging,” Dr. Noren said. “We tried to create a common challenge and emphasized we can handle it very effectively together if we’re structured in the right way.”

Data was collected to drive each line, but Dr. Noren wanted to make sure promises were not made that could not be kept. They also made sure to get other key administrators on board, such as the directors of Decision Support Systems, Quality Management, Care Management, and Medical Affairs, and to introduce these key partners to the physicians.

Besides skepticism, other challenges faced included fostering assertiveness of non-physicians, developing leadership readiness, and getting data/benchmarking software up and running. To foster the assertiveness of non-physicians, Dr. Noren and his group teamed with the nursing office to encourage nurses to prepare report material for their respective Service Line meetings. The feeling was if the nurses had prepared material and an agenda item, they would be more readily accepted as partners and active participants.

As for developing leadership readiness, Dr. Bartlett and Dr. Noren developed and distributed a leadership manual for the chief and vice chief of each Service Line, and then held a joint leadership session where they went through the manual and completed some leadership exercises. In addition, the hospital brought in consultants to conduct a boot camp for Service Line leaders. Dr. Noren said leadership development was something that “couldn’t happen soon enough” and that it was critical to the Service Lines’ success to start training people early for leadership roles.

Getting the benchmarking software in place was also a bit of a challenge. The team underestimated the amount of time it would take to get the software up and running. The team kept energetically pronouncing its prominence and how they planned to use the data to drive decisions and projects, but secretly worried about creating lofty promises they couldn’t keep. It took a year before the software actually lived up to their initial expectations. So far, the data collected has driven each Service Line to continue to improve their operations.

Success for the Service Line concept has come in a number of ways. First, the meetings have proved to be

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*“We tried to create a common challenge and emphasized we can handle it very effectively together if we’re structured in the right way.”*

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conducive to educational advances relating to the field of health care. Second, the meetings have also been places where the hospital can launch new initiatives. Third, the Service Lines have proven to be a great place for developing burgeoning leadership. Last, they’ve also helped break down the schism that often exists between the hospitals and physicians.

Another success for the Service Lines concept came in the form of right place, right time. A lot of Marquette General’s success was due to the factors at play in regards to the health reform debate playing out across the country. This laid the groundwork for a willingness to change, combined with the presentation of a new system that was perfectly tuned to getting past the typical barriers and silos associated with health care reform.

### **Future Directions/Sustainability**

To keep this change going, the team from Marquette General believes the key is structure. After getting the data systems going for the Service Lines, the team was suddenly bombarded with all kinds of information. “We realized that, without structure, a lot of entropy could result in the Service Lines rather clear objective projects,” said Dr. Noren.

To help with this data overload, Marcie Jones, senior director of Medical Affairs, developed a large matrix of improvement projects from each Service Line (two for quality, one for patient satisfaction, and one or two for cost per Service Line). This matrix tracks performance improvement projects, timelines, and responsible parties. After this information is compiled, it is shared during the performance section of each Service Line agenda and with other Service Lines through a monthly newsletter.

Administrative support staff has also played a crucial role in the Service Lines’ development. In addition to sharing ideas with one another, they also take meeting minutes, ensure previous meeting minutes are reviewed, help set agendas, and send out meeting reminders and follow-up messages to make sure all of these are done in a consistent manner across the lines.

A couple of things have led to the sustainability of the Service Lines project. Data collection and analysis and patient satisfaction scores have played vital roles. These tools allow the Service Lines to see how they are positively/negatively affecting the quality of care and the cost value. The newsletter has also had a positive impact. Because it shares what each line is doing, the newsletter has brought out the competitive spirit of the physicians involved.

No officer, besides the chief of staff, is compensated for his or her Service Line work. Dr. Noren said although these people might not get paid monetarily, they are “compensated” in other ways. “They get that ownership in the projects. They get to learn how to use data to drive their agendas,” said Dr. Noren. “They get to be maximally prepared for the challenge of health care reform. They get to be creative components in the institutional direction and have their hands on the helm of where we’re headed; that’s proved more than enough compensation. We don’t compensate with a check.”

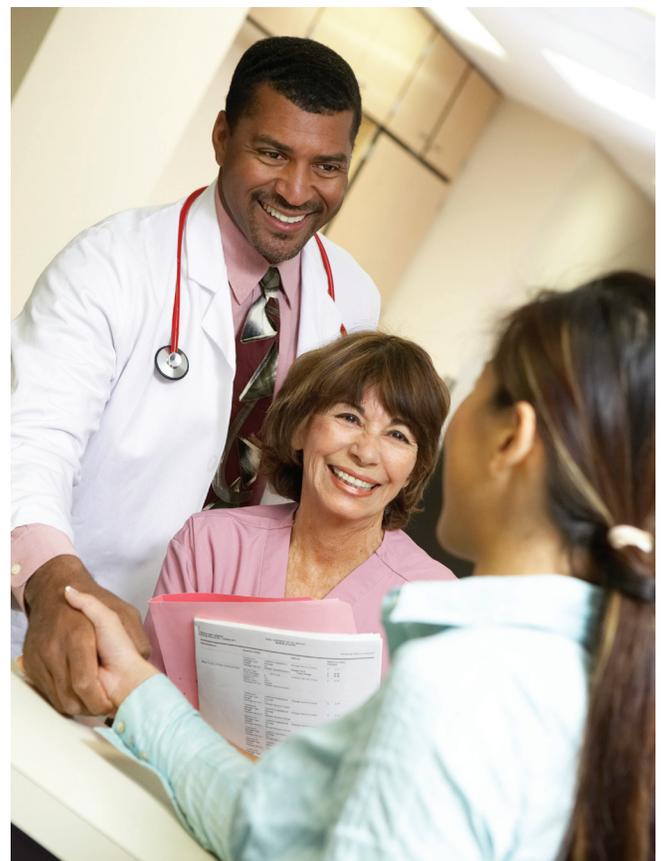
Dr. Noren said that ultimately, the health of the physicians’ own practices and the health of the Service Lines are directly correlated with the health of the institution. This is one of the key messages they took to the physicians and something the physicians bought into early on.

### **Lessons Learned/Advice for Others**

One piece of advice for others wanting to start Service Lines at their own organizations—anticipate a lot of work. “This is going to be something that requires really active participation,” said Dr. Noren. “It’s going to require an energetic launch after which you’re going to have to carry the message in a strong way for a long time. It’s also going to take hours of preparation for each hour of Service Line activity.”

Dr. Noren also suggested getting data systems up and running as soon as possible. According to Dr. Noren, in order to see where improvements need to be made, meaningful data has to be available. Additionally, Dr. Noren recommends instituting some form of structure into the meetings. “You don’t want it to be an agenda that becomes boring and seems to stifle creativity, but you want it to have enough structure,” Dr. Noren said.

Two years into the service line project, there have been numerous lessons learned on both sides of the aisle. For Dr. Noren and his team, they learned what most interested each Service Line and how to make sure the meeting agendas had enough substance to encourage discussion. For physicians, they learned a lot about the business-related aspects of how hospitals operate, such as how hospitals get reimbursed.



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