

# Harnessing the Affordable Care Act to Catalyze Delivery System Reform and Strengthen Emergency Care in America

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Perm J 2015 Winter;19(1):86-89

<http://dx.doi.org/10.7812/TPP/14-168>

## ABSTRACT

As health care reform in the US evolves beyond insurance reform to encompass delivery system reform, the opportunity arises to harness the Affordable Care Act to strengthen patient care in America. One area for dedicated individuals to lead this effort is by improving transitions in patient care across the continuum of team members, specialties, settings, and systems. This article will describe innovations of the surgicalist and acute care surgeon that have emerged in response to the challenges facing surgery in specialization, geography, and the need to comply with health care reform mandates. Three ways will be described to integrate these innovations with pilot programs in the Affordable Care Act: to promote teamwork, to reduce readmissions, and to strengthen emergency care because the key location where the joint efforts intersect most acutely with patient need is in our nation's Emergency Departments.

## CONTRIBUTIONS AND INSIGHTS IN TEAMWORK FROM THE AMERICAN COLLEGE OF SURGEONS

The American College of Surgeons (ACS) has a long history of successful multidisciplinary collaborations to enhance patient safety. The ACS spearheaded the creation of the Joint Commission,<sup>1</sup> developed the guiding principles of Advanced Trauma Life Support, worked with emergency medical services agencies to coordinate the prehospital trauma response and certification of Level I trauma centers, and pioneered the National Surgical Quality Improvement Program. A key partner for success is the Association of American Medical Colleges (AAMC), whose record of accomplishment and vision are consistent with the ACS' intent to optimize the quality and safety of patient care nationally. In spring 2014, the AAMC Health Workforce Research Conference explored expanded roles for community providers—medical care providers who serve predominantly low-income or medically underserved populations. The Affordable Care Act<sup>2</sup> (ACA) has required that covered plans in state insurance exchanges include adequate networks of community providers, who may assume a key future role in team collaborations with the ACS.

In 2009, the ACS issued a statement on high-performance teams and recognized that safe and optimal patient care requires the contributions from many health care professionals across disciplines working together perioperatively.<sup>3</sup>

A challenge is that the surgeon must function both as a leader and as a member of the high-performing team. The ACS recognizes several key attributes of successful teams: a commitment to the best interest of the patient; respectful behaviors toward team members; constructive conflict resolution; and leadership that is clearly defined, is appropriate to the circumstances and solicits input to achieve team-based coordinated decision making. Other keys to success are clear communication with verification of understanding, structured handoffs throughout the phases of care, and the ability to be flexible and adaptable to changing situations.

## THE SURGICALIST AND ACUTE CARE SURGEON EMERGE TO RESOLVE THE EMERGENCY CARE CRISIS

A series of 3 reports from the Institute of Medicine in 2006 detailed a national crisis in emergency care, including overcrowding in the Emergency Department (ED) and the hospital, ambulance diversion, and the boarding of admitted patients in the ED.<sup>4</sup> From the surgical perspective, a major contributor to this crisis has been the national workforce shortage in surgery, which has been exacerbated by a shortage of inpatient hospital beds and inadequate hospital and nursing staffing. The needed services of surgeons are under stress because there are more limited numbers of these professionals who are qualified to provide operative care. In addition, the percentage of general and trauma surgeons comprising the total health care workforce has steadily declined by 50%, from 8% in 1975 to just over 4% in 2005.<sup>5</sup> A projected surplus of physicians and budgetary pressures in the 1990s resulted in graduate medical education funding being frozen at 1996 levels with the passage of the 1997 Balanced Budget Act.<sup>6</sup> This capped the number of residency spaces, resulting in only about 1000 general surgery chief residents graduating each year, a number similar to that in the 1970s. Because nearly 70% of these graduates specialize through fellowships to strengthen their surgical skills before independent practice, only 300 new general surgeons are added each year.<sup>5</sup> Similar forces adversely affect the supply and distribution of trauma surgeons nationally. These factors, in combination with a trend toward earlier retirement by surgeons and a greater-than-expected rate of growth of the US population, have led to AAMC projections that there will be a shortage of 46,000 surgeons and medical specialists in the next decade<sup>7</sup> to meet the increasingly complex needs of an aging population. In response, the AAMC has led important

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efforts to increase both the number of graduating medical students nationally (by expanding medical school class sizes) and the number of residency training positions in the surgical specialties.

Across the nation, EDs have struggled to identify general and trauma surgeons and surgical specialists willing to take emergency call, a factor contributing to the decline in the number of hospital-based EDs in nonrural areas in the US by 27% between 1990 and 2009.<sup>8</sup> A study in the *Journal of the American Medical Association* in 2011 concluded that for-profit ownership, safety-net status, location in a competitive market, and low profit margin were associated with an increased risk of ED closure.<sup>8</sup> The crisis is most severe in rural America, where there are nearly 1200 counties without a general surgeon available.<sup>9</sup> Careful planning will be necessary to better distribute the nation's precious resources. In some parts of our country, one can drive through health care "deserts" for hundreds of miles and not see an ED, whereas in some cities one can walk out of one Level I Trauma Center into another one a few blocks away.

Recent trends, however, provide reasons to be optimistic. Over the past few years, our nation has witnessed the emergence of billboards and commercials that advertise short waiting times in certain EDs, and new online programs allow patients to wait at home until an ED bed is available for them. These changes suggest that the delivery of ED care is becoming competitive, and they offer a starting point from which to coordinate emergency care in urban and rural areas and to increase the number of ED centers in rural America.

Another opportunity arises from the innovations of the surgicalist and the acute care surgeon, which have emerged to reinvigorate trauma and emergency general surgery. These occupations share the core concept of a surgeon dedicated to evaluate patients in the ED and hospital. The 2 fields have emerged as a new career for recently trained surgeons,<sup>10</sup> and as of 2012, an estimated 400 programs exist across America.<sup>11</sup> The innovations offer a platform for surgeon partnerships with ED physicians, critical care physicians, physician extenders, and other surgical specialists to improve care. One example of a fruitful collaboration has been with anesthesiologists<sup>12</sup> and internists<sup>13</sup> to characterize the impact of smoking on surgical outcomes, leading to the recommendation that active smokers undergo smoking cessation counseling before undergoing elective surgery.

Since 2010, at least three major events in trauma and emergency surgery have underscored the importance of sustaining the emergency care system. The first was the favorable recovery of Congresswoman Gabrielle "Gabby" Giffords after being shot in 2011 in Tucson, AZ, which catalyzed a positive change in perception about the heroism of emergency medicine physicians and trauma surgeons.<sup>11</sup>

The second event was the response in Massachusetts to the Boston Marathon bombings in 2013, especially the lifesaving treatments by the Acute Care Surgery and Emergency Medicine programs at Massachusetts General Hospital and Beth Israel Deaconess Medical Center, both in Boston.<sup>14</sup> The ability of the Boston hospitals to care for the surge of 200 extra

patients highlights the quality and importance of emergency medical services.

The third event came in 2013 after the Asiana Airline crash in San Francisco, CA, when nearly 200 patients with a variety of neurosurgical, orthopedic, burn, and trauma injuries were treated at 12 San Francisco Bay Area hospitals.<sup>15</sup> Ultimately, identifying ways to support those courageous providers willing to place themselves on the clinical front lines will be key to solving the emergency care crisis.

### THE AFFORDABLE CARE ACT: OPPORTUNITIES ACROSS SPECIALITIES AND SYSTEMS TO REFORM THE DELIVERY SYSTEM

As the ACA evolves, three areas present themselves in which collaborations across systems and health care professionals may lead to new solutions to both improve patient care and resolve the emergency care crisis. First, greater collaboration will be required to fulfill the overarching intent of accountable care organizations (ACOs), which are key to the financial viability of the ACA. It will be essential to first strengthen the coordination between ACOs with community providers and medical homes (another innovation championed by the ACA). A special opportunity then arises to connect these efforts with dedicated hospital-based programs such as surgical hospitalists and acute care surgeons. Novel collaborations could promote patient throughput in the hospital in the following ways: by shortening waiting times for surgery, decreasing the turnover time for operating rooms, improving time-outs, enhancing communication with primary care physicians, implementing preoperative guidelines to reduce operating room cancellations and improve preoperative preparedness, and assisting with discharge planning to shorten the length of stay.

Perhaps ACOs could also be directly tasked to solve ED overcrowding and boarding. In the United Kingdom, a successful policy, championed by Lord Ara Darzi, surgeon and former Parliamentary Under-Secretary of State in the Department of Health in the House of Lords mandated either patient admission or discharge home within four hours of arrival at an ED. The policy generated positive long-term results by ending patient boarding in ED hallways, shortening patient waiting times to be evaluated, and accelerating improvements in hospital capacity. However, the possible negative impact on health care staff and patient outcomes if organizational skills are inadequate must also be carefully balanced.<sup>16</sup> Western Australia followed the lead of the United Kingdom and adopted the four-hour target, whereas New Zealand chose a six-hour target to complete ED patient evaluations. A similar ED policy could be piloted for ACOs in the US.

The second focus for collaborations should be to reduce hospital readmissions of patients who return for reevaluation in the ED. In 2013, as authorized by the ACA, the Centers for Medicare and Medicaid Services proposed a method and payment adjustment factors to account for excess hospital readmissions because of conditions including heart attack, heart failure, and pneumonia, known as the Hospital Readmissions Reduction Program.<sup>17</sup> The Agency for Healthcare Research and Quality also spearheaded Project RED (Re-Engineered

Discharge), outlining 10 guiding principles for hospitals to employ to reduce the number of patient readmissions.<sup>18</sup> ACOs should seek new solutions to minimize hospital readmissions, which might be achieved through the use of discharge coaches and teams, improved communications with primary care providers, standardization of processes, improved patient education, and an increased role for community providers in inpatient hospital care. New payment models penalize premature discharges that lead to readmission with reduced hospital reimbursement, providing another incentive for ACOs to innovate in this arena. In 2014, Medicare fined more than 2600 US hospitals for having too many patients be readmitted to the hospital within a month for additional inpatient treatments.<sup>19</sup> A key to success will be to define the critical balance between increased readmission rates with shortened length of hospital stay, and to promote collaboration and communication with a patient-centered focus.<sup>20</sup>

Third, the key principle of teamwork must be prioritized further to optimize efficiency and coordination. The ACS has identified four critical components to the success of multidisciplinary teams: 1) the use of team-based education and training; 2) an institutional commitment to providing opportunities for experiential learning, workflow, and feedback; 3) the monitoring of performance; and 4) rewards for good conduct and sanctions for noncompliant individuals.<sup>3</sup> The health care field must carefully consider penalties for poor performance by team members, because the existing literature has demonstrated that pay-for-performance incentives have had minimal impact on improving patient outcomes.<sup>21</sup>

Perhaps there is much to be learned from the steps taken by the airline industry. One of the tools in transforming aviation to a culture of safety was the creation of checklists, a concept championed by Dr Atul Gawande<sup>22</sup> in his book, *The Checklist Manifesto*. This development of checklists served as the first step to define expectations of team performance, followed by the introduction of a National Transportation Safety Board (NTSB) to provide oversight and to enforce the checklists (including penalties for substandard performance). The NTSB was also charged to disseminate the knowledge gained through investigations of aviation accidents and system failures. When asked what he perceived as the key next step to transform health care, Captain Chesley “Sully” Sullenberger recommended the creation of a medical version of the NTSB.<sup>23</sup>

The time has now arrived for health care to move beyond checklists and to introduce innovative partnerships to promote teamwork across the continuum of nurses, anesthesiologists, emergency medicine physicians, community providers, surgeons, and hospital leaders. One strategy to improve efficiency, promote conflict resolution, and enhance team building is through simulation, which is being used with increasing frequency in medical schools and postgraduate training programs. At a regional level, teamwork and collaboration across institutions will be key, because a single hospital will be unable to solve the national emergency crisis alone. The answer will require a vibrant community of health care professionals and emergency rooms working together, rather than competing against each other.

Another answer to the emergency care crisis in America is to inspire a new generation of surgeons to dedicate their careers to emergency surgical care by building on existing graduate medical education programs that provide federal support and loan forgiveness to graduates who practice in rural America. One proposal has been to create a General Surgery National Health Service Corps to deploy board-certified surgeons for 3- to 6-month rotations across rural America, particularly the 1200 counties without a surgeon available.<sup>24</sup> A broader and innovative federal approach could also be similarly applied across medical specialties. Such an initiative would enable the US Congress to send coordinated teams of physicians across the country to achieve the objectives of ACOs in reducing hospital readmissions and in resolving ED overcrowding, boarding, and ambulance diversion.

One important question is, where may the funding to support these future collaborations be found? The answer is from the ACA itself, which recognized the importance of continued research in trauma and emergency care coordination, regionalization, and mass disaster preparedness, and authorized \$224 million to fund the trauma and emergency medical services programs under the Public Health Service Act of the ACA.<sup>14</sup> In his annual budget proposal requests, US President Barack Obama has not yet asked Congress for the appropriation of these funds, but perhaps recent national events can remind both the President and Congress of the vital need to reprioritize funding within existing programs of the ACA to sustain our emergency care system. In the teams of dedicated health care professionals across the US, there is a special opportunity to collaborate to improve both quality and outcomes of care. Health care professionals can do this by fulfilling the promise of ACOs, reducing hospital readmissions, and improving coordination and teamwork to transform emergency care nationally and worldwide. ❖

#### Disclosure Statement

*The author(s) have no conflicts of interest to disclose.*

#### Acknowledgments

*The content of this article was presented at a plenary session of the 10th Annual Association of American Medical Colleges Health Workforce Research Conference on May 1, 2014, in Washington, DC.*

*Kathleen Loudon, ELS, of Loudon Health Communications provided editorial assistance.*

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## Humane

It behooves us to remember that medicine is, above all else, humane as well as human; that its beginning, middle, and end is to relieve suffering, and that whatever is outside this may indeed be science of some sort, but certainly is not medicine.

—Alfred Stillé, 1813-1900, American physician and professor of medicine at the Pennsylvania Medical College