

Fifteen years beyond Institute of Medicine and the future of emergency care in the US health system: Illusions, delusions, and situational awareness

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Around 17 years ago, what was formerly the Institute of Medicine (IOM) and is now the National Academy of Science, Engineering, and Medicine (NASEM) appointed a Committee on the Future of Emergency Care in the United States Health System. The committee was tasked with examining the emergency care system in the United States to explore its strengths, limitations, and future challenges; describe a desired vision of the system; and recommend strategies for achieving that vision.

In the preface to this lecture, President Britton Christmas reminded us that Dr. Frame fought for well-developed comprehensive systems of trauma care and believed that the disease of trauma had solutions that could improve outcome. The IOM project spoke to developing a comprehensive system of emergency care, which inherently includes trauma. I thought it appropriate to revisit the report to determine progress. The United States was in the midst of the COVID-19 pandemic at the time this lecture was delivered in 2021 and provided an opportunity to look at some of our accomplishments and shortcomings in this time of crisis. Ironically, subsequent to embarking on the IOM project, concern about a possible avian influenza pandemic led to the worldwide assessment of preparedness for such an event. At subsequent meetings, many of the deficiencies noted by the IOM Committee were identified as weaknesses in the nation's ability to respond to large-scale emergency situations of any kind. It was noticed that the millions of dollars going into bioterrorism preparedness efforts had yielded only the tiniest fraction to medical preparedness, with minimal disaster preparedness training, poor access to personal protective equipment, hospitals lacking the ability to absorb any significant surge in casualties, and inadequate surge capacity for the critically ill. This seemed familiar during the COVID pandemic.

I was privileged to train in general surgery at the University of Louisville and to return there in 1987, where I have been on the faculty for more than 33 years. I was trained by intellectual giants and technically gifted surgeons, many of whom went on to be influential in trauma care: Hiram Polk, David Richardson, Lew Flint, Kirby Bland, Mark Malangoni, Susan Briggs, and

Richard Mullins. I have served as program director for the Kentucky Emergency Medical Services for Children Project since 1996. This involvement in the essential emergency care of the Commonwealth of Kentucky speaks for my passion to include children and prehospital professionals in all aspects of our emergency care system. This is more important than ever moving forward. Early in my career, I was selected to be a member of the American Heart Association's National Pediatric Resuscitation Subcommittee. The group wrote the content for the Pediatric Advanced Life Support program, including the textbook. The collegiality I was afforded by associates in both adult and pediatric emergency medicine and critical care for my role as a surgeon on that committee has helped define another personal mission, which is (at the heart of it) about "breaking down silos and raising all boats."

Many of the concepts I will advance are my own, particularly when it comes to children's emergency care. I have integrated concepts from friends and colleagues whose contributions fit into the big picture of creating an integrated system of care.

As a populace, we can be swayed by self-perception and overconfidence where confidence overpowers accuracy (perception is reality). An illusion is something that is or is likely to be wrongly perceived or interpreted. Emergency care is often glamorized by programs like Chicago Med, ER, House, Scrubs, Grey's Anatomy, and others. Before the pandemic, it was quite customary for the public to seek their care in an emergency department (ED), many times out of convenience. Their own doctor's office (if they had one) was closed when they got home from work, or their child was ill and could not get in to see the pediatrician after hours, and it was easy to go to an ED instead. There was a disconnect between dissatisfaction with the "system of care" (often translated as medical care that is too costly and not available for all) and satisfaction with the provision of care when they needed it (acute care services as a substitute for primary care).

A delusion is an impression firmly maintained despite being contradicted by what is generally accepted as reality. The "great saves" seen in the visual media and programming have been dampened by current events. Situational awareness can be defined simply as "knowing what is going on around us" and includes information gathering, comprehension, and anticipation. Lacking or inadequate situational awareness has been identified as one of the primary factors in the unintended consequences attributed to human error.

In June 2004, the IOM formed three subcommittees, in addition to a main committee, to examine the crisis in

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emergency care in this country. The crisis was multifaceted, impacting every aspect of emergency care from prehospital emergency medical services (EMSs) to hospital-based emergency and trauma care. The themes to be addressed included improving hospital efficiency and patient flow; developing an accountable, organized, regional system; increasing resources; and pediatric concerns. Several members of the trauma community were selected to participate, including Dr. William Schwab on the main committee and the hospital-based subcommittee, Dr. Brent Eastman on the prehospital EMS subcommittee, and myself on the pediatric subcommittee. Many of the important issues or themes at the time persist today and are worth reviewing. The report reflected on the notion that there was no “one size fits all” solution.¹

EMSS AND PREHOSPITAL PROFESSIONALS

Our EMSs originated as a transportation service, and it has been difficult to transition them to a profession. The substantial progress that had been made in 50 years for our EMS system, including the strong federal leadership and funding of the 1970s, declined abruptly in the 1980s. We had seen the development of the emergency 9-1-1 system, air medical services, and organized trauma care. Federal funding dried up aborting attempts for a coordinated infrastructure, leaving states to develop their own systems. These were uniformly less organized, more haphazard, and lacked a unified approach. To this day, our frontline services are often not defined as an “essential service” and consist of a potpourri of private, state and hospital based, EMS versus fire based, and paid (in many cases underpaid) versus volunteer services. The volunteer and per diem jobs that exist do not qualify for benefits. Some states have uniform regulations and protocols, and many do not. Our prehospital professionals remain undervalued and overworked in many states and rarely receive the recognition they deserve.

The concept of crisis standards of care, popularized in 2009 by Assistant Secretary for Preparedness and Response, refers to the roadmap for medical decision making during catastrophic events.² It seeks a happy medium between in-the-trenches attempts to develop best plans for a state and region and the influence of the federal government. Nowhere is coordination of emergency response needed more than in the chaos that results from an acutely ill or injured populace seeking care that exceeds capacity. Health care delivery under such conditions must strive to limit morbidity and mortality using a public health model that ideally protects the provider and yields to collective, rather than individual, priorities. This concept is challenging in the EMS realm, with state regulations that often do not cross borders or sometimes even county lines. For many of our providers, the pandemic was “on the job training.” The professional role of prehospital professionals is threaded with hazards and risk of occupational injury. These occupational and mental health stressors of the day-to-day job for our EMS workforce are associated with secondary trauma that is difficult to surmount when faced with the need to immediately go out on another run without the ability to decompress.^{3,4}

A victory for EMS in 2007 was formation of the National EMS Advisory Council (NEMSAC), which is represented by 25 sectors that have a vested interest in this profession. Now a

statutory committee, members of the NEMSAC are appointed by the Secretary of the Department of Transportation and serve up to 4 years (two 2-year terms), reporting to the Federal Interagency Committee on EMS (FICEMS) and the National Highway Traffic and Safety Administration (NHTSA). General awareness of this entity by the public and its value is subliminal. The benefits provided by NEMSAC have included better access for EMS communities and stakeholders and the recognition that the industry has transformed from a transportation service to a health care profession with a national stature. There is a deliberate process to get things done through NEMSAC, including the development of evidence-based advisories that are considered by FICEMS and NHTSA for implementation. However, advisories that include funding initiatives may be embraced and even prioritized but remain in the queue if no money is available. Despite the ability of the NEMSAC and associated federal agencies to provide input in a focused way, the administration during the pandemic had already curtailed many of the scheduled activities recommended by the charters of our national advisory committees, including the NEMSAC, which could have more positively impacted the outcome of the pandemic and there was no “national EMS office” with the authority to take control over operations. Once the NEMSAC had time to meet again, short and alternate staffing led to unanticipated delays in moving advisories forward such that they were not considered as references when FICEMS and NHTSA were developing documents on the same topics.

Recently, prehospital data have been aggregated into the National EMS Information System database, now in version 3.0.⁵ Submission is increasing, although voluntary, and will eventually allow EMS agencies to benchmark performance. States and sometimes agencies are beginning to link National EMS Information System with local trauma registries, which will allow tracking the injured patient across stages of trauma care (especially if they are transferred) or determine time from 911 calls to arrival at appropriate trauma centers (TCs) and transfer times.

TRAUMA AND THE EMERGENCY CARE SYSTEM

Historically, the developmental of trauma systems in the United States has been inextricably linked to wars. Figure 1 illustrates some of the improvements in care that resulted during each war or conflict in our history. In 1966, the release of the IOM report on Accidental Death and Disability described the origins of trauma system development that predicated many of the advances that we hold so dear to the safety and quality of the patient care we deliver every day.⁶ The trauma model (system based, comprehensive; with development of standards and a verification process, effective interdisciplinary performance improvement and patient safety; and a motivated workforce) became a blueprint for success across emergency care environments.^{7–10}

Our success in trauma system development has been reflected in other disciplines such as stroke, heart attacks, and sepsis.^{11–16} What has not yet been successful is the coordination of these efforts with consolidation of services across disciplines and the intellectual insight by all to overcome conceptual ownership and to work together. As these systems of care programs have proliferated, there has been a strong tendency for them to

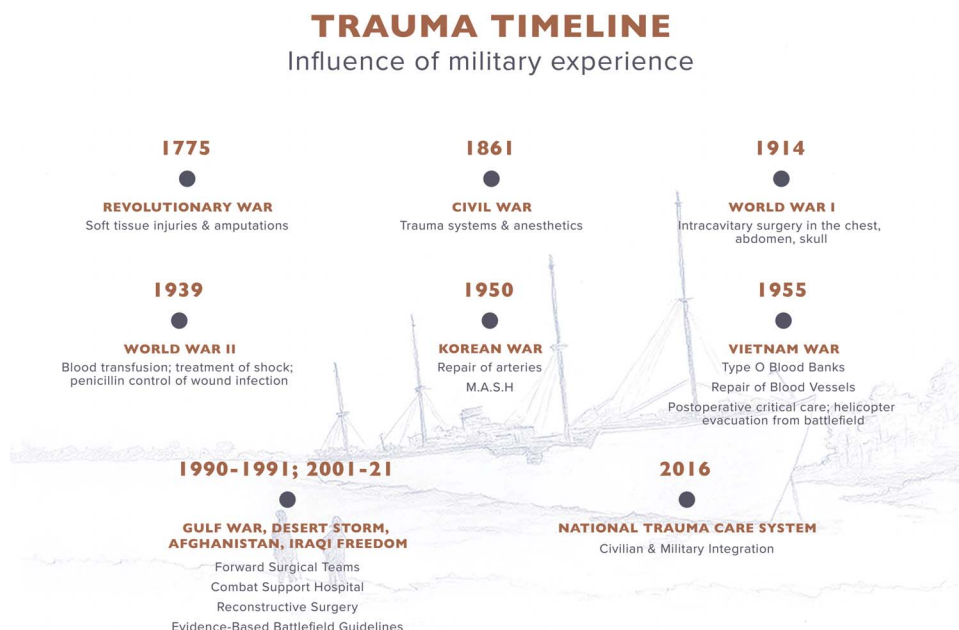


Figure 1. Noteworthy achievements in trauma care that resulted in enhanced survival attributed to military experience. Figure created by Krista Walker.

operate in silos, despite their commonalities and the practical inefficiencies of having separate groups trying to address similar issues. Multiorganizational efforts to develop a model that by design would be more effective, efficient, and collaborative have been unsuccessful to date but are ongoing.

In 2008, the same year as the IOM report was released, the Department of Health and Human Services and the Health Resources and Services Administration released the Model Trauma System Planning and Evaluation (MTSPE), a document providing the tools for trauma system evaluation that laid the foundation for the American College of Surgeons Trauma System Consultation program.¹⁷ The consultation visit includes a series of 100 plus indicators of performance known as the Benchmarks, Indicators, and Scoring. As of 2019, a trauma consultation or Benchmarks, Indicators, and Scoring facilitation had been requested across the country 53 times by states, regions, or counties. However, these evaluations started in 1999, the MTSPE has not been updated since its original release, the systems evaluation process is time-consuming and costly, and the cumbersome scoring system includes few, if any, specific metrics for children or the elderly, the extremes of age groups affected by trauma. Other challenges not addressed in the MTSPE include the need for the expansion of disaster preparedness programs, development of improved and integrated data systems, and strategies for system wide quality improvement. Trauma is a continuum of care, and the emergency care system that must be coordinated and operational at the front end is only one part of a much larger framework. This makes funding of a redesign of the MTSPE more challenging and costly.

In 2016, the former IOM and now NASEM released a report that speaks for integration of military and civilian trauma systems, taking lessons learned and projecting this toward a goal of zero preventable deaths.¹⁸ The NASEM report is broad, deep, and motivated for success and has many champions. Most of the

challenges facing future trauma care are included in the NASEM report including pediatric integration. It has resulted in projects and created opportunities that will continue to be explored, and some have had momentum during the pandemic. The research agenda has momentum through the Coalition for National Trauma Research, a national nonprofit organization that addresses the funding shortage and coordination gap in trauma research.^{19,20} Much of the funding has come through the Department of Defense, and there remains a need for coordinated support through the National Institutes of Health Institute for Trauma Research. The lack of recognition of traumatic injury as a public health problem continues to impact research funding.

In 1992, Dr. David Richardson did a resident survey looking at interest in participation in trauma care after residency.²¹ The survey showed that the enthusiasm and adrenaline that kept residents up at night during a residency program did not necessarily translate to the same degree of enthusiasm in real-world practice. Some years later, leadership from our trauma organizations including the Eastern Association for the Surgery of Trauma came up with a plan for a new discipline called Acute Care Surgery with the American Association for the Surgery of Trauma as its home.^{22,23} The discipline better defined the trauma surgeon, who was also capable of taking care of the patient's critical care needs and provided a solid foundation of operative experience that was missing from the daily care of the trauma patient. Interestingly, the committee for the hospital-based group in the IOM report noted that the greatest future shortage for physicians in the United States was critical care physicians, a need this breed of surgeon also filled. The flexibility in training and practice that the discipline of acute care surgery allowed is conceivably the most adaptable high-level provider in the hospital, allowing for the objective expansion of the critical care workforce. Ultimately, this better prepared the United States for the current pandemic response, and many of our acute care surgeons and surgical critical

care experts found themselves at the forefront of the workforce. Trauma surgeons are also experts in regionalization and regional coordination of care based on need. Places in the country where more sophisticated systems had developed because of past mass casualty events including hurricanes, floods, and mass shooting events and have modeled the Regional Medical Operations Center approach were better prepared to accept patients at multiple sites, potentially predicting better outcomes. Hospitals with preexisting systems had less difficulty in regional coordination of response. After Action Reports will look at lessons learned from the pandemic to aid with future preparedness, infrastructure, and resources. Just-in-time education helps with any of these models, particularly when surgeons are called on to provide a skill set that they have not used in up to decades.²⁴

PEDIATRIC NEEDS

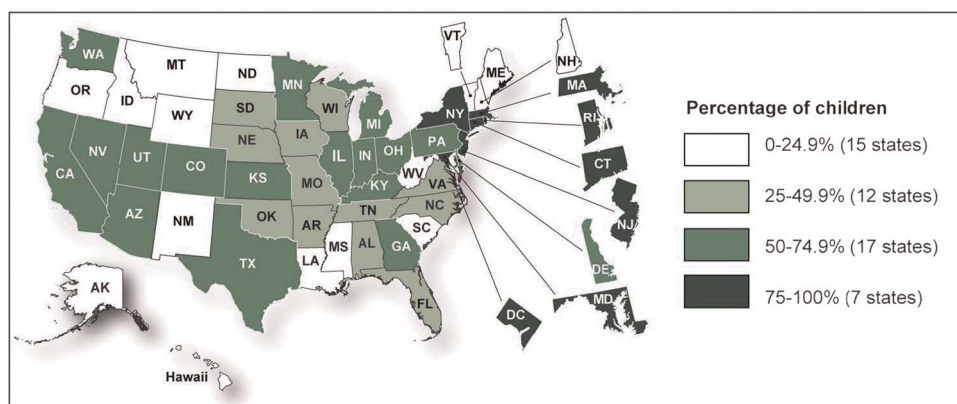
In 1993, the IOM report Emergency Medical Services for Children (EMSC) exposed the limited capacity of the emergency care system to address the needs of children and contributed to the expansion of the EMSC program within the Department of Health and Human Services.²⁵ In the early 1980s, Senator Daniel Inouye introduced legislation in the United States Senate to improve the country's emergency care of children. In 1984, Congress enacted legislation (Public Law 98-555) authorizing the use of federal funds for EMSC.²⁶

In 2005, performance measures were introduced to comply with guidelines for federally funded programs. One benefit of the program is that it is not competitive but measures success based on a state's own progress. A year after the introduction of performance measures, the IOM report was released. The report showed great variation in preparedness by the emergency care system in general to care for children.²⁷ Using the word *uneven*, the report addressed the lack of pediatric supplies in the ED, lack of care coordination, geographic disparities, undertreatment, and failure to recognize abuse. Similar to other areas of the overall 2006 report, many of the gaps remain today although they are closing. Trauma is one component of EMSC, it remains the leading cause of death in children, it is a global problem, and it is a workforce issue.

The average EMS provider has a relatively low chance of doing a pediatric transport in a day. About 7% to 10% of EMS calls are pediatric related, only about 10% of those calls are critically ill or injured patients, and nearly 40% of all EMS providers in the United States see fewer than 13 pediatric patients per year on average.^{28–30} Only about 5% of children are seen in a pediatric hospital, as most are seen in general/community hospitals with a large proportion that see less than 5 to 18 pediatric patients a day (defined as birth to 18 years and a rural medical provider's comfort with all ages across that span could be challenging).^{31–33}

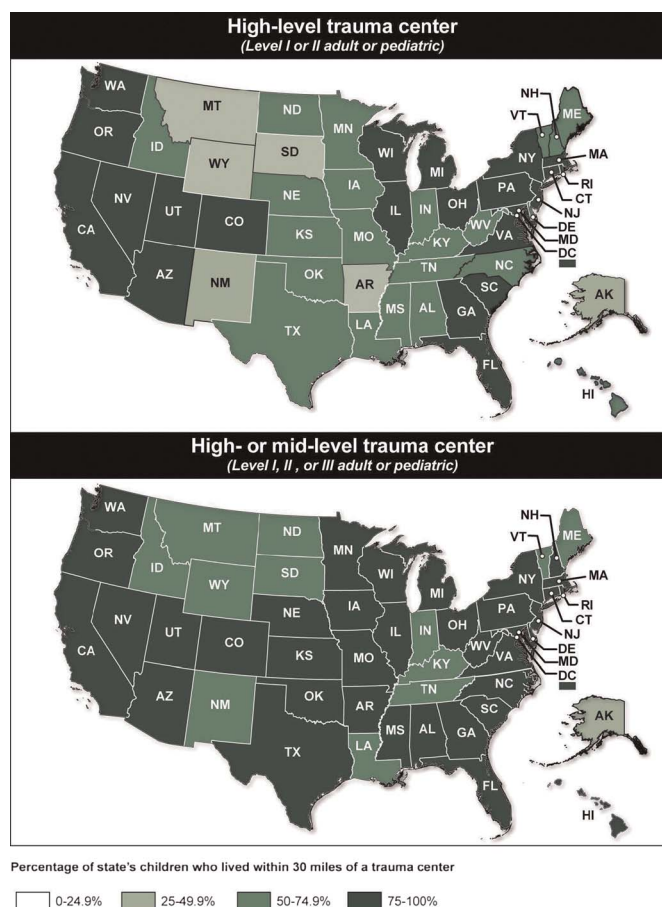
A small fraction of severely injured children is seen in high-level TCs despite proximity; thus, general TCs need to be poised to care for the severely injured child. Figures 2 and 3 are from a General Accountability Office report published in 2016, which was commissioned by a congressional pediatric trauma caucus.³⁴ This report examines the availability of TCs and outcomes for children treated at different TC levels, and how federal agencies are involved in supporting and coordinating pediatric trauma care. General Accountability Office used 2015 data to determine numbers of TCs relative to the pediatric population (defined as children younger than 18 years) from the American Trauma Society's Trauma Information Exchange Program and 5-year population estimates for 2011 to 2015 from the US Census Bureau's American Community Survey. General Accountability Office also reviewed the existing peer-reviewed academic literature on outcomes for pediatric trauma patients, interviewed stakeholder group representatives and federal agency officials involved in activities related to hospital-based pediatric trauma care, and reviewed available agency documentation. Department of Health and Human Services provided technical comments.

General Accountability Office estimates that 57% of the 73.7 million children in the United States during the period 2011 to 2015 lived within 30 miles of a pediatric trauma center (PTC) that could treat all injuries regardless of severity. Among states, the proportion of children who lived within 30 miles of these PTCs varied widely. In eight states, no children at the time lived within 30 miles of a PTC. In 15 states, 0% to 24.9% lived within 30 miles. Even in states that designate TCs, nearly half (45%) of injured children were treated at non-TCs. In areas



Sources: GAO analysis of American Trauma Society and U.S. Census Bureau data (data); Map Resources (map). | GAO-17-334

Figure 2. Children younger than 18 years who lived within 30 miles of a high-level PTC by quartiles, 2011 to 2015.



Sources: GAO analysis of American Trauma Society and U.S. Census Bureau data (data); Map Resources (map). | GAO-17-334

Figure 3. Estimated percentage of children younger than 18 years who lived within 30 miles of a high- or mid-level TC by State, 2011 to 2015.

without PTCs, injured children either were cared for at adult trauma centers or at less specialized hospital EDs for initial trauma care. Some studies General Accountability Office reviewed, including nationwide studies, found that children treated at PTCs have a lower mortality risk compared with children treated at adult trauma centers and other facilities, while other state-level studies found no difference in mortality. Some studies and officials interviewed suggested that more information is needed on outcomes other than mortality for children treated at PTCs because mortality is low in injured children. Of intuitive interest, the areas of the country with no pediatric surgeons, pediatric anesthesiologists, or PTCs overlap. Twenty-eight percent of children younger than 15 years do not have access to a pediatric designated level I or II center within 60 minutes by air or ground. About 10% of the US population lives in a hospital referral region without a pediatric anesthesiologist and 23% without a pediatric surgeon.³⁵ There is also a published estimate from the Shep Center in North Carolina that approximately 40% of pediatric operations in the United States are done in adult general hospitals.³⁶ Many of the areas of the country not served by high-level TCs have state or Committee on Trauma-verified level III and IV centers, creating an opportunity for

empowering and training adult trauma surgeons to provide more care to children.

There are other considerations that affect a hospital's ability to care for children including pediatric readiness, which means an ED is systematically prepared to take care of kids. As a direct result of the IOM report, there is a project led by EMSC to use a checklist to determine a pediatric readiness score. An ED receives a score of up to 100 for having all the supplies, equipment, and personnel readiness needed to care for a pediatric emergency. In 2013, the average score was 69 in 82% of our national EDs.³¹ The EMSC Program is getting ready to resurvey the country. The most recent guidance for this survey was published in 2018 and includes a toolkit.^{32,37}

There is evidence that a high pediatric readiness score is associated with a decreased mortality rate in children. A study by Ames and colleagues³⁸ looked at 20,483 children presenting to 426 hospitals. Adjusting for age, chronic complex conditions, and severity of illness, presentation to a hospital in the highest readiness quartile was associated with decreased odds of in-hospital mortality.³⁸

Why should we as trauma surgeons care? We have prided ourselves on the concept that trauma is a team sport, but the names of trauma organizations are missing from the national collaboratives that published the guidelines on pediatric readiness. One study found that self-identified TCs may not translate to pediatric readiness in EDs.³⁹ Level 3 and 4 centers in particular had lower pediatric readiness scores than nontrauma regional hospitals. If our claim is that any age of moderate to severely injured patient needs care at a TC, we should advocate for this program. A newer initiative is to extend the program to the EMS community, where each EMS has a pediatric emergency care coordinator responsible for training and quality improvement initiatives.^{40,41} As a trauma community, this is something we should support.

Remembering that acute care surgery speaks for flexibility in training and practice, this discipline might also include training to take care of children for those who know they will care for some children in practice. I have polled the current trainees in acute care surgery regarding future interest in caring for children, either in their practice, as a global surgeon, or as a military surgeon. Half of respondents are interested in global surgery and about a fifth are in the military. Sixty percent would like some pediatric surgery or trauma experience during their fellowship, and another 20% are uncertain but say they might be. Ninety-two percent of respondents acknowledged that they will take care of some children including trauma patients. The majority of fellowships or 63% do not currently offer a rotation in pediatric surgery or trauma. This represents an opportunity where pediatric trauma surgeons can be helpful in developing the curriculum. The million-dollar question of "what is a child" has never been well defined in the trauma world and is based on local and regional practice patterns. In a children's hospital, the age of a child can peak anywhere between 15 and 21 years, and some hospitals will care for special needs adults as children because they are "childlike."

Partnering with the American College of Surgeons Rural Surgery Advisory Council and representation from the General Surgery Committee of the American Board of Surgery, a parallel study looked at practice patterns of current rural surgeons in North America.⁴² The tables in the article give guidance to both

the infrastructure that would be needed and the gaps in education that currently exist, some of which could be provided using telehealth. Much feedback involved the need for improved infrastructure at the hospital level and support by the pediatric community to care for the children who stay at the local hospital, but also feedback to the surgeon who initially took care of the child and transferred the care.

With this in mind, there needs to be a better appreciation of the gaps in care and ways to begin to close these gaps. This would require a paradigm shift in thinking, to train for need instead of always training traditionally (Fig. 4).⁴³ Each year in this country, there are surgeons in training who do a year of pediatric critical care but do not match in pediatric surgery. The model in the middle might be the surgeon who does a year of pediatric critical care, which could be followed by acute care surgery with a pediatric focus or 1 year of pediatric surgery training. In the latter case, this surgeon would not take care of newborns and cancer or complex patients but define themselves as a pediatric general surgeon who limits practice to trauma, critical care,

and pediatric general surgery. The model on the right would take the interested rural general surgeon, perhaps through a rural training track or after completing general surgery, and enhance their expertise and confidence in the pediatric skills they need in a rural environment, paired with mentorship by both pediatric surgeons and children's hospitals.

WHAT DOES THE FUTURE HOLD?

Where are we in our path from 2006 and what control do we have over our future?

The pandemic has been a rude awakening. We have not accomplished improved patient flow and ED throughput in the hardest hit areas. COVID has overwhelmed EDs for extended periods, and each wave has resulted in overflow of patients exceeding surge capacities, EMS delays due to prolonged patient turnover, and hospital diversions that further exacerbated EMS delay. This pandemic showed the need for a national EMS Office that is given the capital assets and coordination authority to manage national EMS resources during a pandemic or other incident that lasts longer than a few weeks and affects more than a region.

Overcrowding is not just about efficiency on the ED side but challenges on the discharge side. A potential negative effect of the Affordable Care Act is TC discharges to rehabilitation facilities, which are often delayed based on stricter rehabilitation admission criteria. Discharges to skilled nursing facilities can be even more challenging, and with COVID, this has become worse.

Our current health care model can foster competition, not collaboration, weakening day-to-day operations for time-sensitive emergencies. There is pressure to keep patients in a proprietary system or network. This compromises disaster preparedness with a lack of data sharing and inability to quickly mobilize a regional coordination effort to level the load on hospitals in crisis. While there are pockets of high-functioning systems in the United States, there are major cities that do not have a coordinated approach. COVID has highlighted this.

Major parts of our emergency care system are still functioning in silos, and the public health, private medical, and emergency management systems do not communicate well. Some systems have silos within silos. No amount of goodwill, expertise, or independent resources will achieve the goal of coordination without significant structure and organization, preferably with one agency in charge of all emergency operations coordinating one functional system. In the United States, this will require bipartisan and state support, even though it should not be a politicized system but one that solidifies interests and compromises for the public good. This pandemic showed us how deep the philosophical/political divide is in the United States and how it directly and dramatically affected our ability as a national health care and EMS system to respond to a large portion of the public simply refusing to abide by medical/scientific advice and guidelines.

Where does trauma factor in all this? We have excelled in system development and pride ourselves on national partnerships. We have formed new partnerships in the pandemic and have excelled in providing workforce, but we are just one building block, and we lack uniformity among the preparedness of our states.

The trauma community as a whole and particularly where children are concerned needs to measure long-term outcomes. The IOM report in 1966 importantly recognized that measurement

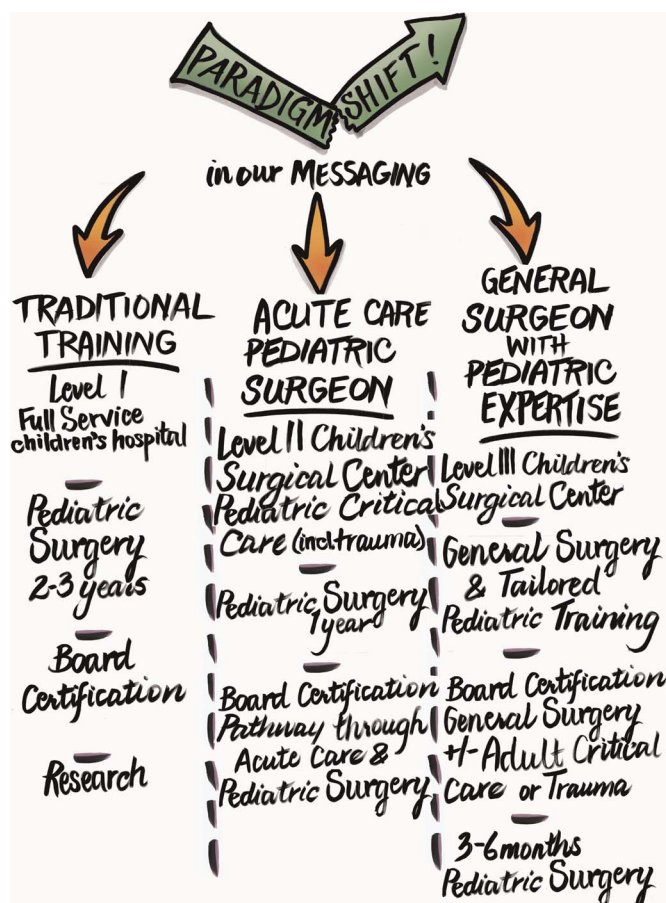


Figure 4. A paradigm shift in how we view training of young surgeons who will devote all or part of their careers to caring for children of any age in any type of center could include an alignment with the Optimal Resources for Children's Surgical Care Verification Program of the American College of Surgeons and Trauma Center Verification. Figure developed by Tanya Gerber, graphic recorder. Reprinted with permission from the *Journal of Pediatric Surgery*.⁴³

of after-hospital outcome was essential in efforts to evaluate quality of care. Since 1966, many measures of short-term outcome have been used to guide performance improvement, but trauma and prehospital care providers alike must continue to develop more accurate, practical, and reliable long-term outcome measures. The goals of care and, therefore, the best measures of outcome, must be issues like optimal physical activity recovery, return to best school performance for children, and recognition and amelioration of the adverse impact of the injury episode on the families of the injured. The COVID epidemic is also demonstrating the importance of long-term outcomes.

We need to build confidence in community surgeons/trauma teams. A key issue is confidence building. Many “rural” surgeons experience an added stress when they are called to care for children. They want to provide the care but realize and are distressed by a sense of higher stakes in providing care to children. A goal in smaller remote hospitals should be to build a team that can, together with the surgeon, support each other to provide their best care to kids. In other words, “what can we do to help surgeons who are compelled by their remote circumstances to treat pediatric emergencies?”

The depressingly accurate statement about the deficiencies of emergency care in the United States health system in 2006 provided an excellent prescription for change that was largely ignored. We now need to plan for future pandemics that last at least a year and maybe more, with multiple waves. We are not conditioned to think like this. When we planned for H1N1, the expectation was that it would spread across the country more slowly giving stockpiles of health care supplies time to catch up. The former federal administration mismanagement aside, we need to adjust our planning for this potential in the future, and it is obvious that, during a pandemic, our ability to respond to and care for cases outside the pandemic is problematic.

There is no federal body that coordinates national emergency care and response. Perhaps COVID in the long run will result in positive change, and Congress will direct and appropriate the necessary long-term (10 years) funding to make it a sustainable part of preparedness/readiness. The recommendations in the original IOM report are still valid. All sectors are loyal to their partners, but all can also be territorial and exclusive. The time has come to work together and raise all boats. Hopefully, this opportunity is coming soon. I leave you with the words of Albert Einstein: “In the middle of difficulty lies opportunity.”

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