TESTIMONY BEFORE THE

HOUSE COMMITTEE ON ENERGY & COMMERCE

SUBCOMMITTEE ON HEALTH

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On behalf of the Trauma Center Association of America (TCAA)

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Statement of Kevin Croston, M.D.

Introduction

Chairman Pallone, Ranking Member McMorris Rodgers, Chairwoman Eshoo, Ranking Member Guthrie, and members of the Subcommittee, thank you for holding this hearing on the "*Improving Trauma Systems and Emergency Care Act*" (H.R. 8163). My name is Dr. Kevin Croston, Chair-Elect of the Trauma Center Association of America (TCAA), Chief Executive Officer of North Memorial Health, and a practicing general surgeon in the Greater Minneapolis-St. Paul region of Minnesota. Thank you for inviting me to speak. TCAA is a non-profit, 501(c)(6) association representing trauma centers and systems across the country and is committed to ensuring access to life-saving trauma services.

Traumatic Injury, Trauma Centers, and Trauma Systems

Traumatic injury is the leading cause of death for people under age 44 and the fourth leading cause of death of all age groups in the United States – claiming more than 270,000 lives annually (in 2020 and 2021, COVID-19 surpassed traumatic injury as the third leading cause of death). According to the World Health Organization, the leading causes of traumatic injury and death – including traffic accidents, murder, and suicide – are expected to increase substantially in the coming years, placing all three among the top 20 causes of death in the world by 2030.[1]

In particular, the growing elderly population – susceptible to injuries from even minor mechanisms such as ground-level falls – has seen a 56 percent increase in trauma-related deaths in the last decade.[2] For those who survive, regaining health and returning to work requires substantial post-acute care and rehabilitation. Accounting for medical expenditures and lost productivity, the annual burden of trauma care is approximately $670 billion in the United States.[3]

Trauma centers play a key role in reducing these numbers. Care at a Level I trauma center lowers, by 25 percent, the risk of death for injured patients compared to treatment received at non-trauma centers (e.g., hospital emergency departments). This is because trauma centers are uniquely qualified to provide comprehensive, high-level acute care for patients with the most extreme injuries, regardless of the patient's ability to pay. The major component that differentiates a hospital emergency department and an accredited trauma center is the requirement for 24-hour availability of specially trained health care providers and support personnel who have expertise in the care of severely injured patients. These providers may include trauma surgeons, neurosurgeons, orthopedic surgeons, cardiothoracic surgeons, radiologists, and nurses. Specialty resources may

[1] World Health Organization (2020, Dec. 9). The top 10 causes of death. https://www.who.int/news-room/fact-sheets/detail/the-top-10-causes-of-death

[2] Rhee, P., Joseph, B., Pandit, V., Aziz, H., Vercruysse, G., Kulvatunyou, N., & Friese, R. S. (2014). Increasing trauma deaths in the United States. *Annals of surgery, 260*(1), 13-21.

[3] Choi, J., Carlos, G., Nassar, A. K., Knowlton, L. M., & Spain, D. A. (2021). The impact of trauma systems on patient outcomes. *Current problems in surgery*, *58*(1), 100849.

also include 24-hour availability of a trauma resuscitation area in the emergency department, an operating room, laboratory testing, diagnostic testing, blood bank and pharmacy. As such, an aggressive trauma care accreditation process is required to assure trauma care is delivered according to established standards of care.

Trauma systems, by contrast, represent comprehensive networks and infrastructure to provide optimal care for injured patients, encompassing a wide spectrum from injury prevention efforts, coordinated prehospital care, integrated networks of trauma centers for acute and rehabilitative care to a concerted research agenda. The modern comprehensive trauma system optimizes cost-effective and high-quality care of the injured patient starting with injury recognition, triage to an appropriate trauma center, multidisciplinary inpatient care, and outpatient follow-up of long-term physical and psychosocial effects of trauma. Beyond the clinical care continuum, a trauma system also prioritizes outreach, education and advocacy, data collection through registries, research, and disaster preparedness and response. Coordination of comprehensive trauma care requires strong leadership and community engagement at the trauma center, regional, state, and national levels.

Patient Access to Trauma Care

Though trauma centers and, by extension, comprehensive trauma systems, have a demonstrable impact on the survivability of traumatic injury, there remains significant geographic variation in the accessibility of trauma care. Approximately 46.7 million Americans lack access to Level I trauma centers within the "golden hour" – the 60-minute period following traumatic injury during which there is the highest likelihood that prompt medical treatment will prevent death.[4] This deficiency is particularly acute in our nation's rural areas as well as among some traditionally vulnerable populations (e.g., minorities, recent immigrants),[5] and trauma center closures disproportionately affect communities with higher proportions of minorities, the uninsured, and people living in poverty.[6]

Approximately 20 percent of the U.S. population live in rural areas; these individuals face elevated risk of traumatic injury compared to non-rural residents,[7] and injury mortality rates are higher in rural communities than in urban and suburban settings.[8]. Evidence suggests that, though the

[4] Branas, C. C., MacKenzie, E. J., Williams, J. C., Schwab, C. W., Teter, H. M., Flanigan, M. C., ... & ReVelle, C. S. (2005). Access to trauma centers in the United States. *Jama*, *293*(21), 2626-2633.
[5] Hsia, R., & Shen, Y. C. (2011). Possible geographical barriers to trauma center access for vulnerable patients in the United States: an analysis of urban and rural communities. *Archives of surgery*, *146*(1), 46-52.
[6] Harris, A. R., Fisher, G. A., & Thomas, S. H. (2012). Homicide as a medical outcome: racial disparity in deaths from assault in US level I and II trauma centers. *Journal of Trauma and Acute Care Surgery*, *72*(3), 773-782.
[7] Coben, J. H., Tiesman, H. M., Bossarte, R. M., & Furbee, P. M. (2009). Rural–urban differences in injury hospitalizations in the US, 2004. *American journal of preventive medicine*, *36*(1), 49-55.
[8] Myers, S. R., Branas, C. C., French, B. C., Nance, M. L., Kallan, M. J., Wiebe, D. J., & Carr, B. G. (2013). Safety in numbers: are major cities the safest places in the United States?. *Annals of Emergency Medicine*, *62*(4), 408-418.

increased risk of death may result in part from differences in injury incidence,[9] the differences in injury response also contribute to injury mortality in rural populations,[10] including documented barriers to trauma center access for the majority of rural residents.[11]

Financing Trauma Care

I mentioned earlier that trauma centers treat the highest-acuity patients without regard to their ability to pay; I cannot stress this point enough. National estimates suggest that one in five trauma patients lacks health insurance.[12] Given the low reimbursement rates for patients without insurance, trauma centers are among the most financially vulnerable of all health care entities.[13] In the United States, trauma-related healthcare expenditures are second only to those related to cardiovascular disease.[14] Trauma-related healthcare costs and trauma-specific administrative expenses threaten to overwhelm institutions treating large numbers of uninsured, severely injured patients.

Improving Trauma Systems and Emergency Care

Which brings us to the legislation before the Subcommittee today. The ***Improving Trauma Systems and Emergency Care Act*** (H.R. 8163), represents a bipartisan effort to uphold the federal government's commitment to ensuring that all Americans have access to life-saving trauma care.

In 2010, Congress authorized hundreds of millions of dollars per year in federal grants to support and sustain trauma care and systems nationwide; however, Congress has not appropriated any of the funding authorized for these programs. In the ensuing years, as discussed earlier, trauma has become the 4th most common cause of death for Americans, following only heart disease, cancer, and COVID-19. In fact, the rate of deaths by traumatic events increased nearly 17 percent between 2019 and 2020.

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[9] Coben, J. H., Tiesman, H. M., Bossarte, R. M., & Furbee, P. M. (2009). Rural–urban differences in injury hospitalizations in the US, 2004. *American journal of preventive medicine*, *36*(1), 49-55.

[10] Jarman, M. P., Castillo, R. C., Carlini, A. R., Kodadek, L. M., & Haider, A. H. (2016). Rural risk: geographic disparities in trauma mortality. *Surgery*, *160*(6), 1551-1559.

[11] Branas, C. C., MacKenzie, E. J., Williams, J. C., Schwab, C. W., Teter, H. M., Flanigan, M. C., ... & ReVelle, C. S. (2005). Access to trauma centers in the United States. *Jama*, *293*(21), 2626-2633.

[12] Scott, J. W., Upadhyaya, P., Najjar, P., Tsai, T. C., Scott, K. W., Shrime, M. G., ... & Haider, A. H. (2017). Potential impact of ACA-related insurance expansion on trauma care reimbursement. *The journal of trauma and acute care surgery*, *82*(5), 887.

[13] Benham, D. A., Carr, M. J., MAb, V. B., Matthew, J., & Martin, M. D. (2022). Financial Vulnerability of American College of Surgeons Verified Trauma Centers: A Statewide Analysis. *Journal of the American College of Surgeons*, 10-1097.

[14] Verner, H. M. G., Figueroa, B. A., Crespo, M. S., Lorenzo, M., & Amos, J. D. (2021). Trauma center funding: time for an update. *Trauma Surgery & Acute Care Open*, *6*(1), e000596.

According to an Avalere study commissioned by TCAA, trauma centers report numerous financial pressures, including federal payment reductions, increased trauma care demands (particularly among the geriatric population and from opioid-related trauma cases), the need to cover vast geographic regions, difficulty attracting and maintaining high-quality trauma physicians and other staff due to the strains of 24-hour trauma service and the staffing crisis resulting from COVID-19.

The *Improving Trauma Systems and Emergency Care Act* would reauthorize, reorganize, and modernize federal grant programs for the purposes of awarding pilot grants for trauma centers, supporting trauma care readiness and coordination, and awarding grants to improve trauma care in rural areas.

Pilot Grants for Trauma Centers

The legislation before the subcommittee today requires the Assistant Secretary for Preparedness and Response (ASPR) to award 10 multiyear contracts or competitive grants to states, Indian tribes or tribal organizations, Level I, II, or II trauma centers, and other eligible entities or consortia of entities for the purpose of supporting pilot projects aimed at, among other goals, strengthening trauma system coordination and communication; improving situational awareness and patient access; developing and disseminating evidence-based practices across facilities; and conducting activities to facilitate research.

A trauma care system is a network of definitive care facilities that provides a spectrum of care of all injured patients.[15] An ideal trauma system includes all the components identified with optimal trauma care, such as prevention, access, prehospital care and transportation, acute hospital care, rehabilitation, and research activities.

The grants authorized by this legislation represent and support a core function of an ideal trauma system: coordination. The critical funding that this legislation provides would help trauma systems nationwide develop best practices that not only allow those organizations to better serve their patients but would also facilitate the *dissemination of those best practices* to our colleagues across the country. Unlike traditional competitive grants, the Pilot Grants are designed as a starting point from which all trauma systems (and their constituent components) can benefit.

Critically, the legislation would also lower the barrier of entry for potential awardees by lowering the current statutory requirement for non-federal matches – from $1.00 for each $3.00 of federal funds to $1.00 for each $5.00. This essential provision will provide for a larger and more diverse pool of potential awardees; ensuring that the funds are distributed equitably throughout the country.

[15] American College of Surgeons, Committee on Trauma. (2014). *Resources for optimal care of injured patients.* Online.

Grants to Improve Trauma Care in Rural Areas

As I mentioned earlier, rural residents have significantly increased risk of death from traumatic injury compared to non-rural residents when treated at Level I or II trauma centers. This disparity can be addressed by improving communication and coordination between trauma systems covering rural areas.

The *Improving Trauma Systems and Emergency Care Act* would reauthorize the Secretary of Health and Human Services to award grants to "Improve Trauma Care in Rural Areas" by supporting research and demonstration projects aimed at: improving emergency medical services and trauma care in rural areas through the development of innovative uses of technology, training, and education; transporting seriously injured patients for the purposes of receiving emergency medical services; improving access to prehospital care; increasing communication and coordination with state or tribal trauma systems; and disseminating any related best practices and activities to facilitate clinical research.

Like the Pilot Grants for trauma centers, the long-term goal of this grant program is designed to benefit not just the immediate catchment area of a trauma system awardee, but to develop best practices that can be shared with rural trauma care providers throughout the country.

Trauma Care Readiness and Coordination

Finally, the legislation before the subcommittee today is intended to build upon the lessons learned during the ongoing COVID-19 pandemic, as well as the lessons yet to be learned during future public health emergencies. The *Improving Trauma Systems and Emergency Care Act* would require the Assistant the Assistant Secretary for Preparedness and Response to support States and consortia of States to coordinate and improve emergency medical services and trauma care during a public health emergency by: developing, issuing, and updating guidance to support coordinated medical triage and evacuation; disseminating information about evidence-based/informed trauma care practices; and other activities to optimize a coordinated and flexible approach to the emergency response of hospitals.

This final provision of the bill represents a culmination of the underlying theme of my testimony, as well as the primary intention of the legislation itself: that effective preparation and coordination is at the core of trauma system organization and effectiveness. A 2016 report by the National Academies of Science, Engineering, and Medicine (NASEM) outlines 11 recommendations for completing the nation's trauma system, including federal leadership, coordination and integration between military and civilian health leaders, stronger collaboration between states, steps to address

gaps in trauma care, and a national trauma research plan with dedicated funding for clinical research.[16]

Conclusion

The *Improving Trauma Systems and Emergency Care Act* is not just a reauthorization bill – though that is indeed an essential part of it. It is instead the first step toward a fundamental rethinking of how we approach trauma care in the United States. The grants authorized by this critical legislation will allow trauma care systems across the country to develop innovative approaches to trauma coordination, expanded patient access to trauma care, and improved outcomes for the most severely injured patients. The goal of this unified, integrated, strengthened trauma system is to achieve maximum survival and maximal return to normal function following injury.

Thank you again for your consideration of this important legislation and for the opportunity to testify before you today. I am happy to answer any questions that the Subcommittee may have.

[16] Berwick, D., Downey, A., & Cornett, E. (2016). A national trauma care system: integrating military and civilian trauma systems to achieve zero preventable deaths after injury.