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dechert@bmc.orgReceived 21 November 2019
Accepted 1 December 2019**SUMMARY**

The social determinants of health are increasingly being recognized within the trauma community. These determinants are major drivers of health and have a huge impact on access to surgery and surgical disparities. As trauma surgeons, we continue to struggle with optimizing care for our patients with many social needs and struggle with trauma as a chronic disease. As we are now using public health approaches to combat complex issues such as gun violence, it is ideal to view our work in a wider context which includes addressing the root causes of trauma and advocating for our patients and our communities. In addition, we need to teach and mentor this broader approach for our students and residents.

Performed since ancient times, medical research continues to evolve. Translational research, a relative newcomer in this essential undertaking, has emerged to speed the transition from discovery to real-world application. More recently, the synthesis of evidence from health services research and patient-centered outcomes research has empowered patients and clinicians with decision-making support and guidelines regarding effectiveness and appropriateness of care.

In describing the continuum of clinical and translational science, Waldman and Terzic divide the current model into five discreet steps, pointing out that patients and communities stand to benefit most from continuous evolution and enhancement of the paradigm.¹ We have an opportunity to advance translational research and impact the health of populations and healthcare on a broader scale by reframing the questions we seek to answer and constructing our research in a fundamentally different way. I propose a new framework for translational research, one that uses data to benefit our patients—as it always has—while at the same time enabling us to advocate and actively influence changes in policy at the local, state, and national levels.

We continually strive to improve the care of our patients, aided by research findings. At Boston Medical Center, we recently studied rehabilitation placement for victims of violence. Our research found that these patients were less likely to receive acute rehabilitation services and less likely to go home with services compared with patients with non-violent injuries. While this work may contribute to the literature, in reality, it is more important to take these findings to the statehouse. The ultimate goal is to ensure all patients with spinal cord injuries, whether from a car crash or a bullet, are discharged to a rehabilitation facility

if needed. This is just one prime area for advocacy, but the examples are endless. At every level, advocacy can impact the way we do healthcare. How can we conduct research so that our results enable us to effectively advocate for our patients and develop new legislation and change policy?

We are all too familiar with the reality that not all patients have equal access to surgery, and with the associated disparities in patient outcomes. As trauma surgeons, we do a good job of caring for the injured and do significant work in injury prevention, but we have not done enough in examining our patients' social needs as major drivers of their health. If 80% of an individual's health is determined by behaviors and the social and environmental conditions in which they live, work, and play, we need to examine how social determinants impact trauma, focusing on avenues available to us to alter the path that leads to recidivism and trauma as a chronic disease. How can we actually address our communities underlying social and economic conditions? Fighting for—and with—our communities is underused as a method for providing better care for our patients. We need research to provide the data that will enable us to effectively educate and advocate those who make health policy. We need research that can be translated into action.

As trauma surgeons, we often see the effects that malnutrition has on our patients recovering from surgery and on those *trying* to recover from significant injuries. Traditionally, we provide clinical care while social workers help our patients access food banks and other resources. Making the effort to provide fresh produce to patients struggling to afford food is important, but it does not address the underlying systemic issues that cause food insecurity.

Social determinants of health and trauma are shaped by both money and power, and affect our patients and whole populations. Traditional medicine has not been proactive in addressing the root causes of surgical inequity and healthcare disparities but instead has been reactive in treating the downstream effect, acute disease. If we want to have a greater impact on the long-term health of our patients and our communities, as trauma surgeons, we need to act. It is time to set a higher bar, shifting from a charity model to an equity model as we work with our communities. Healthcare, public health, and social services need to work together to truly improve health.

Luckily, our residents and students are already thinking this way, and they are the key to sustaining this momentum over time. Future physicians and surgeons are coming into their training with a broader perspective of healthcare. Our students now learn about social determinants of health and

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that these factors are the major drivers of health. Their view is broader, their perspective wider. Thinking more about communities and populations—on a local, national and global scale—becomes part of their consciousness.

Given that nearly one-third of US counties have no practicing surgeon, we need our young trainees to choose surgery.² Surgeons need to show these upcoming students and residents that there is mentorship regarding the social determinants of health in relation to our surgical patients. With the growing number of students interested in integrating public health and the care of underserved populations into their career, the time is now. This is especially important considering that ‘role model influences’ and ‘fit with personality, interest, and skills’ were among the leading reasons for specialty choice among medical students on the recent Association of American Medical Colleges questionnaire. We need to demonstrate that as surgeons we believe advocacy is absolutely a foundation of professionalism in medicine. A 2016 Institute of Medicine report concluded, ‘To impact health equity ... requires more than just accruing knowledge, health professionals must develop appropriate skills and attitudes to be advocates for change.’³

This new form of translational research can have a transformative impact on health. Surgeons can help lead the way. We

can do things differently—and better. The greatest barrier is changing our mindset.

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