

Project Future: *Osteopathic Medicine will Define the Future of Healthcare in the United States*

Prepared for the American Osteopathic Foundation

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September 15, 2020

Dr. Michael Blum, associate vice chancellor for informatics at the University of California, San Francisco Medical Center believes that “We’re not even going to recognize health care 35 years from now.” Blum believes that healthcare is going to look a lot more like the health care of Star Trek, where doctors are rulers of advanced medical technology. I share the belief that doctors will be more valued for their intuitive medical knowledge within a technology-driven environment. This environment is where osteopathic medicine will take center stage. Already, the training of DOs is highly integrated into both technology and community-level social service ecosystems.

Clay Christensen and Jason Hwang in *The Innovator’s Prescription* describe the landscape of medical care as evolving on a spectrum, ranging from intuitive to precise. Intuitive medicine is care for conditions loosely diagnosed by symptoms and pattern recognition and treated with therapies of unclear efficacy. As the intuitive ‘art of medicine’ is the essence of osteopathy, it is dependent upon a deep understanding of the patient and her environment. Precision medicine is the delivery of care for diseases that can be precisely diagnosed and treated with predictable, evidence-based treatments. Osteopathic physicians today and in the future will have both.

The physician of 2050 will have workflows and ways of thinking that are critical but unrecognizable to today’s physician. Most futurists believe that the best way forward is to adopt a collaborative approach with AI and machine learning and connect it to population health improvement. According to the new official United Nations projections, world population is expected to exceed 11 billion people by 2100. This continuing growth, as well as a growing number of people with unprecedented life expectancies, will create new and lasting challenges for healthcare worldwide. Thanks to medicine that allows people to live longer and a declining fertility rate, the major health threats of previous generations — infectious and parasitic diseases — are no longer major threats to children. As chronic and preventable diseases are the greatest threat to the new aging population, particularly heart disease, cancer, and diabetes, a new kind of doctor is needed to work at a broader scale to reduce the severity of these conditions on the

older population so they can remain healthy and mobile for longer. Again, it's time for osteopathic physicians to fill this void.

The COVID-19 pandemic has been a wake-up call for everyone, as its effects unveil systemic and structural deficiencies in nearly every aspect of society. While initially viewed as an isolated health crisis, the subsequent economic recession has revealed that health and the economy are highly interconnected and dependent upon each other. Sadly, record unemployment and lack of opportunity has devastated the livelihood and health status of many. In addition, coronavirus data continues to reveal troubling disparities among select income and racial groups. According to The COVID-19 Racial Data Tracker, approximately 22 percent of COVID-19 deaths are among African Americans, yet Black Americans only make up 13% of the total US population. This disproportionate impact is similar with the Hispanic/Latinx population, which is approximately 4 times more likely to be hospitalized for COVID-19 than White Americans.

The shift from medical care to health and personal wellness of individuals and entire populations is accelerating rapidly and is fueled by advanced technology and shifts in the economic design of payment systems. The transition from a focus on medical science to human wellness requires that osteopathic physicians and other healthcare workers take on a fresh set of soft skills such as empathy. Understanding how to improve empathy is a major factor in the transformation of medicine. Empathy is surprisingly rare in clinical settings. A 2007 study in the *Journal of Clinical Oncology* showed that oncologists responded to patients empathically just 22 percent of the time when they had the opportunity to react empathically. They chose instead to discuss some other aspect of medical care, such as a change in therapy, in 76 percent of these situations. In 2009, the *Journal of Academic Medicine* published a study of 456 medical students which concluded that their empathy significantly declined during the third year of medical school.¹

Osteopathic medicine must take the lead as patient-centered care becomes household-centered care as the responsibility of healthcare providers will grow from a narrow view of morbidity and disease to a focus on a person's physical and social environment, mental and spiritual health, wellness, physical activity, nutrition, and quality of life. As the scope of care increases, osteopathic physicians will be connected to an ecosystem including counselors, wellness coaches, trainers, and an army of various health and wellness navigators. The important *mental* shift from viewing people through the lens of a sick person or "patient" to a well-person must be deeply rooted in all aspects of our society if we are to expect future osteopathic physicians,

¹ Mohammadreza Hojat et al., "The Devil Is in the Third Year: A Longitudinal Study of Erosion of Empathy in Medical School," *Academic Medicine* 84, no. 9 (2009): pp. 1182-1191, <https://doi.org/10.1097/acm.0b013e3181b17e55>

nurses, and their non-traditional wellness teammates to transform the health of the United States and the world.

Expansion of Osteopathic Medicine is a solution to physician shortages and health disparities

The increasing physician shortage over the last two decades, and now the COVID-19 pandemic, has demonstrated that we need to increase the number of physicians to ensure we can care for patients in the near-term and the future. There is also an alarming lack of diversity in the physician workforce. Although African Americans constitute about 13% of the nation's population, in 2011 only 2.5% of medical school applicants were African American men, which had dropped from 2.6% in 2002. A particularly telling statistic is that only 515 African American men entered medical school in 2014, compared to 542 in 1978. This decline continues today and has been termed a "crisis" in African American health care. Health disparities are well recognized in the African American population, with higher rates of cancer, stroke, diabetes, and heart disease than non-Hispanic Whites.²

It is important to note that the size of the projected physician shortage has risen in each study dating back to the groundbreaking research conducted by Dr. Richard "Buz" Cooper in 2004. The longer-term prognosis of more people, an older demographic, continued economic and health status disparities, and an older population of retiring doctors does not appear to be slowing. Cooper's research showed that population growth, the aging population, and poor population health is driven by chronic illness and will drive more demand for physicians than the U.S. medical education system can produce. Further, in his book "Poverty and the Myths of Health Care Reform", published postmortem in 2019, Cooper concluded that the growth of economic and health disparities in the United States has only made his dire prediction of an eternal shortage more pronounced.³

Addressing Social Determinants of Health requires osteopathic leaders to interface with a diverse cohort of organizations and individuals beyond healthcare; including leaders in education, government, social services, and/or economic development. Only then can communities achieve comprehensive transformation. Community Transformation Initiatives that improve the physical, mental, economic, and environmental health of a community can only be successful by bringing these key players all to the table. Transformational initiatives represent a shift in strategy to achieve the economic benefits that result from working collaboratively across sectors within a diverse network of stakeholders.

³ <https://jhupbooks.press.jhu.edu/title/poverty-and-myths-health-care-reform>

Economic Impact of Osteopathic Medicine will be measured in trillions

A new model of medical care led by osteopathic medicine holds the promise by mid-century to increase health, dramatically lower healthcare costs, and drive the economy by reducing the economic gap between rich and poor. Currently the United States has the worst health status and highest cost for care among all developed societies. The economic reality of spending nearly 20% of our nation's collective economy on exceptionally poor health outcomes is unsustainable – in addition to being morally wrong. The economic re-design of our healthcare delivery system must be deeply rooted in both human interaction and the dramatic cost-saving potential of advanced health-focused technology.

Without a change in the economic design of our systems, however, most of the dollars that could be invested in our nation's future will be sucked up by traditional spending on treating sickness and chronic disease. An even greater danger is the economic cost of sick and dying populations. Tripp Umbach estimates that the poor health status of the United States costs our economy nearly \$3 trillion annually. The U.S. economy could grow by 15% annually from the productivity gains of increasing our nation's health to the average industrialized country – achieving exceptional health would drive the economic wellbeing of our nation even more. Osteopathic physicians must be at the forefront in increasing the health of people and communities (population health) to allow future generations to invest in education, the environment, energy, arts, and cultural expression. The economic value of the osteopathic profession has the opportunity to transform both health and economic wellbeing for the next hundred years.

About the author: Paul Umbach

Paul is among the most experienced consultants in the United States, having directed more than 2,000 assignments in every state and more than 500 communities throughout the country. Over the past 30 years, Paul has implemented his "Turning Ideas into Action" model in developing 50 new medical schools, graduate medical education, and health science programs. Tripp Umbach has implemented growth strategies for our nation's leading academic medical centers and universities. He is the father of Economic Design Thinking, which he developed while completing post-graduate work at Harvard University. Paul has professional and academic credentials in urban and regional planning, geography, music, and theology. Paul is considered the pioneer of the national community health improvement movement and has worked with the majority of osteopathic and allopathic medical schools in the United States.