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Overcoming Medical Orthodoxy (Part 2): Reinventing Medical Education

Market Corner Commentary
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By David Nash, MD, MBA and David W. Johnson

Author's note: This is the second article in a two-part series on reimagining American medical education and ongoing physician training. Part 1 details the limitations of the current models in training doctors to combat chronic disease and practice value-based care. (Read Part 1 here.) This article, Part 2, illustrates innovative approaches to training medical professionals through the lens of four new medical schools. These schools have developed innovative approaches for training medical professionals to manage the health of distinct populations holistically and cohesively.

In the fall of 2020, the new Kaiser Permanente Bernard J. Tyson School of Medicine (KPSOM) opened in Pasadena, California, with an inaugural class of fifty first-year medical students.

Explicit in Kaiser's decision to launch a new medical school is the belief that traditional medical education compromises the acculturation of new physicians into population-based medicine.

In addition to KPSOM, several other new medical schools are challenging medical education's orthodoxy. Their curricula promote interdisciplinary and interprofessional team-based care. They emphasize chronic disease management and social interventions that advance health equity. They believe that medical professions should promote health as well as treat disease. They are the future of medicine.

Entrenched cultures and practices within traditional medical schools have overwhelmed efforts to make medical education more progressive. Like Martin Luther when he challenged the teachings of the Catholic Church in the 1500s, these new medical schools confront a well-established orthodoxy with a new and revolutionary paradigm.

A NEW ORTHODOXY FOR MEDICAL EDUCATION

Medical education is at the epicenter of healthcare transformation. New-era medical schools reject orthodox educational models that emphasize rote learning, condition-based care delivery (heroic medicine) and specialized research. Instead, they are developing curricula, pursuing research and designing programming to meet the broad-based health and healthcare needs of American consumers and communities.

This article profiles the following four schools:

- Kaiser Permanente Bernard J. Tyson School of Medicine (Kaiser Permanente SOM);
- Geisinger Commonwealth School of Medicine (Geisinger SOM);
- The University of Houston College of Medicine (Univ. Houston COM); and
- The Whole Health School of Medicine and Health Sciences (Whole Health SOM).

Both Kaiser and Geisinger Health System have their own large commercial health plans and require high-performing, primary-care physicians to manage the care of its members.*

Although they have developed independently, the schools have learned from one another, adopted similar approaches to medical education and developed innovative models for physician training.

Kaiser Permanente Bernard Tyson School of Medicine (Kaiser Permanente SOM)

Located in Pasadena, California, KPSOM is associated with Kaiser Permanente Health System. The school admitted its first class of 50 students in 2020, and a second class of 50 students in 2021. In 2020, 36 percent of its students came from populations underrepresented in medicine. In 2021, that number rose to 40 percent.

To train its "future physicians in 21st century medicine", the school emphasizes equity, inclusion, and diversity; service-learning; health promotion; student well-being; advocacy and leadership; interprofessional collaboration; and global health within a rigorous curriculum organized around clinical, biomedical, and health system science.

Their collective pedagogies exhibit the following four tenets: 1) practical, active and collaborative learning; 2) deep engagement with patients and communities; 3) holistic approaches to personal health and professional development; and 4) integration of technology, economics and innovation into learning.

(Editor's Note: co-author of this series David Nash is a Board member of Geisinger Commonwealth School of Medicine.)

Each school articulates a strong, revolutionary mission. As Abbas Hyderi, senior associate dean for medical education at Kaiser Permanente SOM, observes: "We felt this [the new medical school] was an opportunity to shape the future of medical education, and to disseminate change more broadly."

Kaiser Permanente SOM's mission is to "provide a world-class medical education that ignites a passion for learning, a desire to serve, and an unwavering commitment to improve the health and well-being of patients and communities." The school aims to produce graduates focused on person-centered care and health equity, while instilling them with the courage to challenge the status quo in medical education, the medical profession and the healthcare system.

Bring on the revolution! Let's examine the four tenets individually.

PRACTICAL, ACTIVE AND COLLABORATIVE LEARNING

Perhaps the most striking feature of the new medical education model is its emphasis on active learning. As Steven Scheinman, recently retired Dean of Geisinger Commonwealth School of Medicine, notes, "In most medical schools you spend your days sitting in lectures, receiving information, memorizing and learning passively. Why do we need to memorize when we carry around smart phones?"

This hands-on approach embraces the need for lifelong learning throughout physicians' careers. Abbas Hyderi (Kaiser Permanente SOM) agrees with Scheinman (Geisinger SOM): "Most of what students learn in their first year is forgotten by their third. Medical education is a lifelong learning process. Indeed, clinical knowledge is ever-expanding and evolving, and does not lend itself to memorization or rote learning.

The emphasis on active learning at these schools puts students into care rotations almost from day one, providing extensive outpatient experience. Students develop specific competencies within highly collaborative, team-based, tech-friendly settings that include social service, pharmacy, nutrition and counseling professionals, among others.

Stephen Spann, Dean, University of Houston College of Medicine, points out how this multi-professional approach leads to better care, fewer medical errors and a more open approach to decision-making.

Medical error is commonly a system failure. A lot of the instincts doctors are historically taught to hone – distrust outside information and assume that all responsibility falls on the shoulders of the physician – reinforces a top-down system in which the physician is the unquestioned authority.

We benefit from what other professions have learned about interdisciplinary, interprofessional teams, which encourages active listening, good questioning, and transparent sharing of opinions.

Geisinger Commonwealth School of Medicine (Geisinger SOM)

The oldest of these four schools, Geisinger was originally launched as The Commonwealth Medical College (TCMC) by the Northeastern Pennsylvania Medical Education Development Consortium in 2008, with funding from the state and Blue Cross of Northeastern Pennsylvania.

The school accepted it first class in 2009 and graduated its first MDs in 2013. In 2011, the Liaison Committee on Medical Education placed the school on probation because of concerns over financial stability. The Committee lifted probation in 2012, and the school achieved full accreditation by both LCME and the Middle States Commission on Higher Education in 2014.

Seeking long-term financial and mission stability, leadership approached Geisinger Health System with a renewed vision for medical education focused on primary care and community health. The school integrated with Geisinger in 2017 and changed its name to Geisinger Commonwealth School of Medicine.

DEEP ENGAGEMENT WITH PATIENTS AND COMMUNITIES

All four schools emphasize population health. Each conducts community-based research and care delivery. Contrary to traditional medical education, the care approach is long-term, not episodic. Students and care teams follow patients over months and years to provide better chronic and preventive care.

University of Houston College of Medicine students spend one half day each week in a primary-care practice setting throughout the four-year curriculum. UHCOM assigns medical, nursing and social work students to interprofessional teams who follow families with complex medical and social problems in underserved communities longitudinally. Like many American cities, low-income communities in Houston experience major disparities in health access and life expectancy. Part of UHCOM's mission is to improve health and well-being in low-income communities.

As Spann (Univ. Houston COM) observes, "We now understand that a high percentage of preventable disease and death is related to social determinants of health. We're trying to address those issues upstream through our curriculum and our community partnerships."

Increasingly, healthcare leaders recognize that health equity is a critical societal challenge. Scheinman (Geisinger SOM) notes that the Flexner report did tremendous damage to Black medical schools. He thinks that many modern schools of medicine are inward looking and do not engage sufficiently with their surrounding communities.

The key pillar of Geisinger SOM's curriculum focuses on community engagement. Geisinger SOM's vision strives to train passionate physicians who promote health within their communities. The school addresses broader community health and social-care needs on multiple fronts, including via its innovative, food-pharmacy program.

The four schools employ proactive approaches to improving health equity. As part of their curricula, they support students in identifying and helping to close care gaps. They do this through self-identified community-health needs and in partnership with community-based organizations. Notably, all four schools also enroll a diverse student body with the intention of creating a physician workforce that better reflects the ethnic composition of the communities they will serve.

The University of Houston College of Medicine (Univ. Houston COM)

The University of Houston College of Medicine is the City of Houston's first medical school in 50 years. The inaugural class of 30 students started in 2020 and have now embarked on the inpatient clinical experience phase of their education and their Longitudinal Integrated Clerkship.

The UH College of Medicine is built on an important social mission – to improve the overall health and health care of Greater Houston, Texas and beyond.

At Univ. Houston COM, the admission committee is blind to student ethnicity, but the school's goal is to have underrepresented minorities compose at least half of each class. In its first two classes, the minority enrollees represented two thirds of the student body. As Spann (Univ. Houston COM) puts it, "We drew young people absolutely passionate about working as primary-care doctors in underserved communities."

In Kaiser Permanente SOM's second cohort of students, 40% are from ethnicities underrepresented in medicine, 30% identify as LGBTQ, 26% are socioeconomically disadvantaged, and 18% are first-generation college graduates. Geisinger SOM supports scholarships for underprivileged students as early as high school.

Each of the schools emphasizes direct community engagement. Each also strives to engage patients and their families according to their specific needs and circumstances. Students receive training in how best to engage patients in conversations about life priorities.

By discussing and identifying specific life goals of each patients, physicians learn more about patients' motivations to improve health. For example patients with diabetes might follow care plans more diligently when those plans link to specific life goals, like the playing with grandchildren or attending graduations. Tracy Gaudet, founding Executive Director of Whole Health Institute observes,

"As physicians, we're so habituated to asking questions a certain way according to the standard practice of identifying illness. We have to turn that on its head and start with what really matters to the patient and build from there, especially if it's in the context of continuous care."

Gaudet continues, "What if healthcare could actually be about helping people explore the purpose and meaning in their life? And from that place, the physician helps link self-care and healthcare together. So, the engagement is not about lowering their lipids but helping them live a life that's important and meaningful to them, whatever that looks like.

When you flip the model from diagnosing and treating disease to giving people the skills and support they need to address their own self-care and healthcare, you get a real difference in outcomes."

The foundation of proactive patient engagement is trust. Scheinman (Geisinger SOM) declares, "Physicians are invited into the lives of patients as nobody else is. Patients trust us to arrive at the right diagnosis, to administer powerful drugs, to cut them open. They trust us with secrets even their families do not know. This is a great privilege that needs to be earned."

HOLISTIC APPROACHES TO PERSONAL HEALTH AND PROFESSIONAL DEVELOPMENT

Medical schools are notorious for inflicting impossible course loads and exhausting rotation schedules on students. The cliché of working around the clock is all too real. Each of these school leaders is passionate about reducing burnout and promoting holistic health and wellness among their students. It makes sense. When physicians practice better self care, their patients experience better outcomes and report higher satisfaction.

With clinician burnout comes reduced empathy and compassion fatigue. This decreases the level of patient engagement and physician satisfaction. For an industry facing labor shortages, rampant substance abuse and increasing suicides, improving physician well-being is critical. Reducing burnout, starting in medical school, is essential to improving the physical and mental health of physicians.

As Hyderi (Kaiser Permanente SOM) observes, "Current medical education results in physicians becoming less empathetic over time, not more." At Kaiser Permanente SOM, students work closely with coaches to help promote their well-being, resilience and humility, and to guide them in developing personal and professional goals and growth.

The Whole Health SOM emphasizes the importance of integrating physician health and wellness into professional development and practice. Whole Health leadership believes that better self-care and well-being are innately important to medical students as human beings, and help alleviate burnout associated with demanding educational programs.

Whole Health School of Medicine and Health Sciences (Whole Health SOM)

Founded by Walmart heir and philanthropist, Alice Walton, the Whole Health School of Medicine is associated with its sister organization, the Whole Health Institute, a nonprofit organization focused on making transformative approaches to health and well-being available and affordable to all.

Whole Health SOM represents an attempt to address modern health challenges through a reimagination of medical school education. Their approach incorporates mental, emotional, physical and spiritual.

Students at the Whole Health SOM will engage with a wellness coach throughout medical school to enhance their own self-care. The Whole Health team believes that physicians who value self-care and personal well-being are also more likely to "preach what they practice" and promote healthy behaviors among their patients.

Spann (Univ. Houston COM) concurs, "There's overwhelming evidence that compassionate and empathetic relationships between healthcare professionals and patients leads to better outcomes and lower costs. And guess what – that's correlated with higher doctor satisfaction, higher joy and lower burnout."

INTEGRATION OF TECHNOLOGY, ECONOMICS AND INNOVATION INTO LEARNING

Integration of technology, economics and innovation into curriculum and training is the least-developed tenet among the four new medical schools. However, each school recognizes the importance of education in these areas to achieving their goal of better-trained physicians and better population-health practices.

Each program applies technologies to support classroom education. For example, augmented- and mixed-reality simulation tools enhance anatomical study and practice as well as facilitate the physicians' capacity to provide care in virtual settings. For the same reason, telehealth training is also central.

Given that medicine's high-tech, high-touch future will incorporate human-machine collaboration, the schools recognize their need to incorporate more technological sophistication into their training regimens. Fortunately, students arrive today with greater technological sophistication than their predecessors. In many ways today's students are leading the charge into medicine's tech-driven future.

At Kaiser Permanente SOM, students work with Kaiser's customized Epic EHR system beginning in their fourth week of medical school. Considering the extent to which EHRs can rule (and ruin) physicians' daily lives, extensive practice interfacing with the system is time well spent. Likewise, Whole Health SOM is also working to make EHR data part of its education program.

Read More

Look for upcoming commentary on how continuing medical education needs to change to support the skills today's clinicians need.

As to the business of healthcare, each curricula nods toward the links between the cost, quality and economics of care as part of value-based care training. However, there is little emphasis on practice management, administration, capital markets, etc., which are increasingly central to physician-group success.

The programs also place insufficient emphasis on innovation and entrepreneurialism. However, the Whole Health SOM intends to make innovation a high priority within its curriculum. Moreover, Whole Health students must complete a Whole Health Innovation Project as part of their training. The program also will emphasize healthcare economics.

Closer links to entrepreneurial and business education programs would augment current medical educational and support.

CONCLUSION: REINVENTING MEDICAL EDUCATION

In 1910, the Flexner Report standardized medical education for a burgeoning scientific, industrial age. Despite tremendous advancement in medical science since, the American people are sicker than ever. Yet medical education has resisted adaptive change.

Today, physicians trained in the "old" Flexner medicine model enter their profession ill-equipped to meet the day-to-day care needs of patients and communities. That healthcare delivery model will not change until medical education transforms.

In response to a broader societal demand for kinder, smarter and more affordable healthcare services, a new paradigm for medical education has emerged to challenge orthodox beliefs and practices. New and innovative medical schools are training physicians to become more effective in preventing, managing and alleviating complex health challenges. Their paradigm-shifting approaches emphasize engagement, prevention and team-based models for delivering holistic, value-based care.

While still evolving, "new" medical education seeks to address consumers' real health and healthcare needs. It incorporates the following elements:

- Practical, applied learning with limited lecture time.
- Meaningful emphasis on holistic health and well-being for both patients and students.
- Longitudinal, collaborative team-based approach to patient care and engagement.
- Community-focused practices that address the needs of local populations.
- Practical training in advanced technologies (EHR, patient engagement, virtual platforms), and advanced science (personalized medicine, data analytics, virtual care).
- An appreciation for the business, economics and administration of value-based care.
- Openness to innovations that drive care enhancement, including AI and digital tools.

Traditional medical schools confront an existential question: Can they adapt their curricula and practices to meet societal needs for population-based healthcare?

Those interviewed for this article expressed skepticism in the ability of legacy institutions to adapt. Stephen Spann (Univ. Houston COM) noted these challenges and more:

"How do we produce health? If that's our true north, everything flows from there, including reducing inequities, destroying structural racism, etc. We need to start thinking now about how to build that physician leadership model for the future."

Spann says, "But if you really believe we need a complete overhaul of the curriculum to create the doctor of tomorrow, with certain skills, beliefs, and capabilities, then the challenge of changing that curriculum goes much deeper and includes insufficient numbers of faculty to teach the program."

No paradigm shift happens without struggle. New paradigm-busting medical schools are shaking off the burdens imposed by a century of static medical education. They're training the medical professionals America needs to become a more equitable, productive and healthier nation.

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AUTHORS

David Johnson is the CEO of 4sight Health, a thought leadership and advisory company working at the intersection of strategy, economics, innovation and capital formation. Dave wakes up every morning trying to fix America's broken healthcare system. Prior to founding 4sight Health in 2014, Dave had a long and successful career in healthcare investment banking. He is a graduate of Colgate University and earned a Masters in Public Policy from Harvard Kennedy School. Employing his knowledge and experience in health policy, economics, statistics, behavioral finance, disruptive innovation, organizational change and complexity theory, Dave writes and speaks on pro-market healthcare reform. His first book ***Market vs. Medicine: America's Epic Fight for Better, Affordable Healthcare***, and his second book, ***The Customer Revolution in Healthcare: Delivering Kinder, Smarter, Affordable Care for All*** (McGraw-Hill 2019), are available for purchase on www.4sighthealth.com.

Dr. David B. Nash is the Founding Dean Emeritus Jefferson College of Population Health (JCPH), and he remains on the full-time faculty as the Dr. Raymond C. and Doris N. Grandon Professor of Health Policy). His 11-year tenure as Dean completes 30 years on the University faculty. He still serves the university as "Special Assistant" to the Chief Physician Executive, and as a board member of Jefferson's ACO.

A board-certified internist, Dr. Nash is internationally recognized for his work in public accountability for outcomes, physician leadership development, and quality-of-care improvement. Repeatedly named to Modern Healthcare's list of Most Powerful Persons in Healthcare, his national activities cover a wide scope. Dr. Nash is a principal faculty member for quality of care programming for the American Association for Physician Leadership (AAPL. He served on the NQF Task Force on Improving Population Health, The Joint Commission Award Committee, and is a founding member of the AAMC-IQ Steering Committee, the group charged with infusing the tenets of quality and safety into medical education. Dr. Nash continues to serve in governance roles for organizations in the public and private sectors, as he has throughout his career.

Dr. Nash has received many awards in recognition of his achievements, and his work is well known through his many publications, public appearances, and online column on MedPage Today. He has authored more than 100 peer-reviewed articles and edited 25 books, as well as holding editor roles at industry publications including Annals of Internal Medicine (1984-1989), American Journal of Medical Quality, Population Health Management, and American Health and Drug Benefits.

Dr. Nash received his BA in economics (Phi Beta Kappa) from Vassar College; his MD from the University of Rochester School of Medicine and Dentistry and his MBA in Health Administration (with honors) from the Wharton School at the University of Pennsylvania. He has received honorary doctorates from Salus University in Philadelphia, GCSOM, and the University of Rochester, delivered numerous endowed and named lectures across the country.

DISCLAIMER

PROFILES IN MEDICAL EDUCATION LEADERSHIP

People with eclectic backgrounds and iconoclastic inclinations lead these institutions. Notably, most of the leaders have practiced primary or family care.

Steven Scheinman, former Dean, Geisinger Commonwealth School of Medicine

Steven Scheinman is the recently retired president and dean of Geisinger Commonwealth School of Medicine. He is a nephrologist and respected investigator in renal genetics. Scheinman facilitated the school's integration with Geisinger Health System and redirected the curriculum to focus on primary care. Geisinger is among the nation's leading, vertically-integrated healthcare systems.

Abbas Hyderi, Senior Associate Dean for Medical Education, Kaiser Permanente Bernard J. Tyson School of Medicine

Abbas Hyderi trained in family medicine and preventive medicine. Prior to that, Hyderi was a student of anthropology and public health. His teaching, practice and work in health policy focuses on underserved, marginalized patients, especially in the LGBTQ community.

Stephen Spann, Dean, University of Houston College of Medicine

Stephen Spann grew up in South America with his missionary parents and practiced family medicine in rural America. He was one of the pioneers of the patient-centered, medical-home model, led a large international teaching hospital in the Middle East, and returned to America to lead the formation of this new medical school.

Tracy Gaudet, founding Executive Director, Whole Health Institute

Tracy Gaudet was formerly executive director of the Veterans Health Administration's National Office of Patient Centered and Cultural Transformation. The whole health movement began in the VA system. The leadership team at the Whole Health School of Medicine and Health Sciences includes:

Elly Xenakis, founding dean, an OBGYN and former vice chair for education at the University of Texas Health Science Center.

Colleen O'Connor, executive vice dean, former associate dean of curricular affairs at Duke University School of Medicine.

Adam Rindfleisch, vice dean for education, former medical director in integrative health at the University of Wisconsin-Madison School of Medicine and Public Health.