

Reporter

Vol. 25, No. 4
May/June 2016

News About the Nation's
Medical Schools and Teaching Hospitals

Alison J. Whelan, MD,
Named AAMC Chief Medical
Education Officer



Alison J. Whelan, MD, senior associate dean for education and professor of medicine and pediatrics at Washington University School of Medicine in St. Louis, has been named the new chief medical education officer of the AAMC. She will join the AAMC on Oct. 3.

A member of the faculty at Washington University School of Medicine since 1994, Whelan was appointed associate dean for
continued on Page 7

Report Encourages Leaders to Envision the Future of Academic Medicine

—By Sarah Mann

Not so long ago, an academic medical center (AMC) could take five years or more to identify a major health risk in a specific community, design and implement an intervention, and see improved outcomes. Today, all this can happen in a matter of months thanks to an ability to aggregate data and identify patterns of illness.

The ability to quickly gather and analyze data has the potential to revolutionize research and clinical practice, according to Lloyd Michener, MD, a professor at Duke University School of Medicine and chair of the Department of Community and Family Medicine. And it is just one way academic medicine will be evolving in the next 10 years. The coming changes, and how leaders in academic medicine can prepare for them, are the focus of a new

AAMC report, *Academic Medicine in 2025: Notable Trends and Five Future Forces*.

Part of the AAMC's Future of Academic Medicine Series, the report is a collaboration of the AAMC and the Institute for the Future, a nonprofit research organization. It aims to inspire leaders at AMCs, medical schools, faculty group practices, and universities to make "sustaining, future-oriented decisions" today by thinking about how current trends could intersect with external future forces to affect academic medicine over the next 10 years.

The report notes several demographic, epidemiological, economic, and educational trends that will continue to inform medical education, research, and patient care. But the bulk of the report focuses on five external future forces. These changes in tools, practices, behaviors, and

continued on Page 4

Developing New Ways to Encourage Faculty Engagement and Advancement

—By Jen Uscher, special to the Reporter

Academic medical centers have no lack of skilled, dedicated, and community-minded faculty members. But how do they encourage those abilities and talents to their advantage? The Oakland University William Beaumont School of Medicine (OUWB) and University of Utah School of Medicine are among the institutions developing incentives to increase faculty engagement.

"Institutions that are willing to address policies and systems to advance faculty scholarship in the broadest sense will be the most competitive in the future," said Valarie Clark, MPA, director of faculty development at

the AAMC and program leader for the association's Group on Faculty Affairs.

At OUWB, the Meaningful Participation Program established in 2011 offers incentives to faculty in clinical departments to support the teaching and service missions of the school. To maintain an OUWB appointment, each faculty member in a clinical department must earn three faculty professional development credits and nine service credits over a three-year period. The school's Committee on Appointments, Promotion, and Tenure (CAPT)—made up of faculty members—creates the Meaningful Participation list of activities that are eligible

continued on Page 4



Coming Soon to AAMC.org!

For more than 45 years, the Reporter has helped tell the story of how America's medical schools and teaching hospitals work to improve medical education, patient care, and research to improve health. We know that many of you look forward to seeing the print edition of the Reporter each month.

But now, it's time to retire the print version and move online to a more dynamic, interactive, and engaging mobile-friendly format that is part of a more centralized, real-time AAMC news site we will design during the summer months. Look for our new look on AAMC.org soon!

Inside

5 Innovations in Medical Education: Game On!

Learn how to recognize and treat sepsis by playing a video game? Researchers are finding that games can be highly effective learning tools in medical school.



8 Priming the Medical School Pipeline

Medical schools are reaching out to teens in minority and underserved communities with programs that build skills and inspire interest in health careers.



11 Bundle Up

Bundled payments are transforming how we deliver care. Early adopters of bundled payments provide a look at the challenges and lessons learned.





What Does the Future Hold for Academic Medicine in a World of Health System Mergers and Acquisitions?

Darrell G. Kirch, MD, AAMC President and CEO

Spring finally arrived in Washington, and for the AAMC, that meant not only cherry blossoms and warmer weather, but also the opportunity for us to gather with our constituents at our various affinity group spring meetings. In March, I attended the Council of Deans and Council of Teaching Hospitals and Health Systems combined meeting, where we discussed the dramatic transformation occurring at our medical schools and teaching hospitals and the implications for the future of academic medicine.

Among the most dramatic changes in our landscape are the new partnerships emerging between institutions across the country, often in response to or in preparation for the financial and governance pressures facing medical education, health care delivery, and medical research. From alliances to joint ventures to acquisitions to full mergers, academic health systems are establishing a broad regional presence and aligning clinical services across the continuum of care.

While collaborations and mergers may be the biggest and most apparent changes, efforts are under way to transform the way we provide clinical care at every level of our health systems to increase efficiency, enhance transparency, and improve patient outcomes. The push to find alternatives to fee-for-service payments has led to new models—including bundled payments and accountable care organizations—that are helping us rethink and redesign the continuum of care to achieve better community health outcomes. Physicians and hospitals are experimenting with the use of technology not only to care for more patients, but also to improve the referral process for specialists and enhance communication between primary and specialty care providers.

These changes inevitably lead to growing pains at all levels of an organization. New partnerships present challenges not only in aligning the governance, organization, and management systems of complex institutions, but also in the difficult tasks of integrating cultures, values, and missions. For health care providers, administrators, and educators, it can be challenging to keep up with changing care delivery and payment models and to learn and teach technology that will continue to evolve. Although many of these changes are driven by economic forces, medical educators face the special challenge of maintaining strong clinical learning environments to prepare the next generation of physicians to acquire the competencies needed to keep up with ongoing changes in medicine and practice.

But as difficult as these changes can be, they are essential to ensuring long-term sustainability. In addition to improving efficiency, lowering cost, and creating more nimble organizations, transforming our health systems provides an opportunity for our institutions to play a deeper role in advancing community and population health. The transformation of our landscape also allows us to embrace

practice models that emphasize patient-centered care and create true medical homes for patients. And by advancing value-based payment models and using technology to provide remote care, these changes are helping bridge the gap in access. Since implementation of the Affordable Care Act, AAMC data have shown that although the number

“While the rapid changes to our organizations can feel jarring, increased collaboration and partnerships are generating new energy to identify and advance more efficient and effective models for care, education, and research.”

of health care consumers who did not access medical care because of cost is shrinking, the number of consumers who did not access medical care because they could not find a provider is growing. This is a serious problem, exacerbated by a nationwide physician shortage that is expected to reach between 61,700 and 94,700 by 2025, according to our most recent workforce shortage analysis. While we cannot increase the overall supply of physicians without lifting congressional caps on funding for residency training, we can begin to tackle the problem through population health management and improving access to care in areas of the country where the physician shortage is most severe.

Our challenge is to ensure thriving and sustainable health systems that can guarantee ongoing, robust support to our missions of education, research, and clinical care. The AAMC is helping our members achieve this goal through workshops, webinars, and resources that will help our institutions better communicate the value of their services and determine out-of-pocket costs for patients. An AAMC health care advisory panel is also focusing on the challenges and opportunities related to mergers and acquisitions and

their effect on the academic missions. The panel is expected to issue its recommendations this fall.

The discussion with the deans and CEOs was at times sobering, yet I came away more optimistic than ever about academic medicine’s ability not only to weather these changes, but to lead the emergence of new models for medical education, research, and patient care. Tomorrow’s health care system will be one of value-based reimbursement, advanced technology, and large, complex integration. Medical education will require an emphasis on developing competencies that will help the next generation of physicians practice effectively amid the acceleration of medical and scientific knowledge. And we will need to strengthen our support for the entire spectrum of medical research to achieve our goal of better care for individuals, better health for populations, and a reduction in per capita health costs. While the rapid changes to our organizations can feel jarring, increased collaboration and partnerships are generating new energy to identify and advance more efficient and effective models for care, education, and research. Health care providers, educators, and leaders are drawn to academic medicine because of their skills at solving problems. We face major challenges, but I am confident that we have the people and the partnerships to solve them.

Karen Fisher Joins AAMC as Chief Public Policy Officer



The AAMC welcomed Karen Fisher, JD, as its new chief public policy officer. One of the nation’s leading experts on Medicare, Fisher rejoins the AAMC after serving as senior health counsel for the Senate Finance Committee for

the past four years. During her time at the Senate, she played a key role in drafting the Medicare Access and CHIP Reauthorization Act of 2015, which created the new Medicare physician payment system. She also worked as lead adviser on other Medicare concerns and health care policies.

Fisher spent almost a decade as senior director in health care affairs with the AAMC before she moved to her position at the Senate Finance Committee. In her new role, Fisher leads the AAMC’s advocacy and public policy efforts and works to advance legislative and regulatory priorities related to medical education, health care delivery, and medical research. She succeeds Atul Grover, MD, PhD, who is now the association’s executive vice president.



The Role of the Center for Medicine After the Holocaust in Medical Ethics Education

By Raul Artal, MD, Professor and Chair Emeritus, Department of Obstetrics, Gynecology and Women's Health, Saint Louis University School of Medicine (left), and Sheldon Rubinfeld, MD, Clinical Professor of Medicine, Baylor College of Medicine, Visiting Professor, Rice University Program for Jewish Studies, and Executive Director, Center for Medicine after the Holocaust

Editor's Note: The opinions expressed by the authors do not necessarily reflect the opinions of the AAMC or its members.

This year marks the 70th anniversary of the Doctor's Trial, the medical case of the Nuremberg proceedings, at which 23 physicians, bioscientists, and public health officials were prosecuted for medical crimes against humanity. The trial highlighted the central role of medical professionals in the ideology, design, and implementation of the Holocaust.

These events are still relevant in medicine today. We must learn from the past and be vigilant to avoid serious lapses in medical ethics. The Center for Medicine after the Holocaust (CMATH) is dedicated to challenging doctors, nurses, and bioscientists to personally confront the medical ethics of the Holocaust and to apply that knowledge to contemporary practice and research. Our mission is to bring the history of medicine and the Holocaust to the attention of medical professionals and public health policymakers so that the biomedical ethics that guide their decisions will prevent egregious violations of human dignity.

The Nazi policy of applied biology was built upon the worldwide eugenics movement that was popular for more than 30 years before Hitler became the German chancellor in 1933. Eugenics—*rassenhygiene*, or race hygiene, in Germany—is the science that aims to improve a race by controlling reproduction.

Nearly 3,000 physicians joined the National Socialist Physician's League before Hitler became chancellor. By the end of World War II, 38,000 physicians, slightly less than half of Germany's doctors, had joined the Nazi party, and 7 percent of physicians were SS members, compared with less than 0.5 percent of the general population.

Nazi physicians claimed the moral high ground by transforming the Hippocratic Oath from a doctor-patient relationship to a state-*Völkörper*—or nation's body—relationship. They justified the sterilization or elimination of "lives not worth living" as a merciful preventive measure, simultaneously ending the suffering of the genetically inferior and preventing transmission of their presumably hereditary harmful traits.

In addition to the euthanasia program, German physicians ran medical experiments—with decompression chambers, iatrogenic wounds and infections to test antibiotics, hypothermia, seawater infusions, and starvation—that were cruel and often fatal.

During the Doctors' Trial, 16 defendants were found guilty, and seven were executed. In addition, the court developed 10 basic principles of human subjects research that were subsequently labeled the Nuremberg Code. The trial, however, focused primarily on the medical experiments rather than the egregious violations of medical ethics in clinical medicine and health care policy.

The Nuremberg Code was ignored for almost two decades until 1966, when Henry K. Beecher, MD, published an article in the *New England Journal of Medicine* detailing

multiple unethical medical experiments. And in 1972, whistleblower Peter Buxton leaked the story of the Tuskegee experiments to journalist Jean Heller, who ran the story in the *Washington Star* and the *New York Times*. Congressional investigations ultimately led to the institutional review boards that supervise human subjects research today.

While the original Nuremberg Code is sometimes included in bioethics curricula at medical schools, its origins and history are often neglected. One possible reason that American physicians and scientists ignored the Nuremberg Code is that they were disinterested in highlighting America's leading role in the worldwide eugenics movement or the moral, legal, and philanthropic support they provided to German Nazis. Another reason may be that American bioscientists were not interested in securing voluntary informed consent of their human subjects. A final reason may be denial of the role physicians played in the design and implementation of the Holocaust.

“We must learn from the past and be vigilant to avoid serious lapses in medical ethics.”

The biggest myth of all, though—the one that continues to handicap contemporary medical bioethics—is that neither liberal democracies nor American physicians are capable of committing such evil acts.

Indeed, involuntary sterilization began in Indiana in 1907. The U.S. Supreme Court declared the practice constitutional by an 8-1 vote in the 1927 *Buck v. Bell* decision. In *Mein Kampf*, Hitler praised America's eugenically driven immigration laws. The Rockefeller Foundation in 1927 provided funding for the Kaiser Wilhelm Institute of Anthropology, Human Heredity, and Eugenics in Berlin, which trained Josef Mengele, who later was known as the "Angel of Death" in Auschwitz. Finally, Hitler and his propagandists defended anti-Semitic policies by noting the long history of racism in American medicine and slavery.

We note with concern Mark Twain's dictum, "History does not necessarily repeat itself, but it often rhymes." Indeed, there continue to be occurrences that are alarming for medical ethics. For example, two groups have called for a moratorium on using genome-editing technology CRISPR-CAS9, which could alter the genes of human embryos to attain "better" babies. What will happen to other babies, those who are not genetically enhanced?

According to the 2013 annual Liaison Committee on Medical Education survey of U.S. and Canadian medical

schools, only 22 U.S. medical schools include material about medicine and the Holocaust in their curricula. Because an understanding of this material is essential in shaping the morals and ethics of contemporary health professionals, CMATH provides extensive educational resources at www.medicinaftertheholocaust.org. We recommend that bioethics curricula at all medical schools include education about the medical practices, human subjects research, and public health care policies during the Third Reich.

The AAMC Reporter (ISSN 1544-0532) is published monthly by the Association of American Medical Colleges.

www.aamc.org/reporter

Managing Editor
Eve Glicksman

Contributing Editor
Sarah Mann

Staff Writer
Rebecca Greenberg

Copy Editor
Corine Sprigle-Fesler

Designer
Christina Scott

Contributors
Dana Cook Grossman
Kim Krisberg
Stephen G. Pelletier
Kate Petelle
Jen Uscher
Robin Warshaw

Editorial Board
Susan Beach
Communications

Jennifer Faerberg
Health Care Affairs

Anne Farmakidis
Academic Medicine

Kevin Grigsby
Organizational Leadership Development

Stephen Heinig
Scientific Affairs

David Moore
Governmental Relations

Norma Poll-Hunter
Diversity Policy and Programs

Alexis Ruffin
Medical Education

Jennifer Schlener
Office of the President

Elisa K. Siegel, Chief Communications and Marketing Officer



Find the AAMC on Facebook, or follow us on Twitter @aamctoday.

Changes to your Reporter subscription?
Contact your AAMC professional development group, or email reporter@aamc.org.

Future of Academic Medicine, continued

norms include on-demand learning, flipped clinics, networked discovery, high-resolution health, and rapid prototyping cycles. The combination of these future forces and linear trends could lead to large cultural, social, and technological shifts over the next decade.

Examples of future forces are beginning to percolate at medical schools and teaching hospitals. Researchers at Duke, for example, are participating in high-resolution health, using big data to identify health risks and behaviors in precise locations and develop targeted interventions to address asthma, obesity, and other chronic conditions.

“There are massive amounts of data available that allow us to understand health outcomes, behaviors, and risks at a very precise level, for individuals and communities, and design interventions that can make a profound difference,” Michener said. “We’ve gone from, ‘We ought to do something related to asthma, obesity, or diabetes,’ to finding a cluster of people in three housing projects who have asthma and working with them to find out what is causing asthma in those neighborhoods. This is a far more effective approach than focusing on educating folks about their illness, and continually adjusting their medications.”

Transformative technology

Technology will continue to inform education and health care delivery, according to the new report. Learning will take place across a variety of mobile platforms. Many medical schools already use on-demand learning, an innovation of disruption that is expected to evolve in the next decade. Virtual clinical care is another disruptive force. The Virtual Care Clinic at the University of Southern California (USC) Center for Body Computing, for example, does not require patients or care providers to be present in the same place, allowing for on-demand medical care.

“This health care model will empower patients, improve quality outcomes with more precision medicine analytics and diagnosis, and enhance the physician-patient relationship by creating a contextualized experience and seamless communication that puts the patient in the driver seat of their own health care experience and outcomes,” said Leslie Saxon, MD, executive director of USC Center for Body Computing and a professor of clinical medicine at Keck School of Medicine of USC.

These examples and many others serve as “signals” of the future, said William T. Mallon, EdD, AAMC senior director of strategy and innovation development, who worked with Institute for the Future on the report. “In a time of

rapid transformation—like our world today—the signals of the future are all around us. The challenge is to see the future trends from these signals.”

AMCs, medical schools, and teaching hospitals can use the report to support their transformation efforts. “Strategic foresight is a competency for all of our member institutions to master,” Mallon said.

A 2014 AAMC report, *Advancing the Academic Health System for the Future*, noted that AMCs would need to undergo significant change in the decades ahead. According to Michener, who served on an advisory panel for the 2014 report, it has been “startling” how quickly the capacity has built up for big data to transform research and practice. As signs of transformation pop up in new practice, research, and education models, the “hardest change is actually a cultural change,” Michener said. “It’s from thinking about what we do within our hospitals, health systems, and practices to identifying the people we care for and the levers we can effect that might change the patterns of illness they experience.”

Engaging Faculty Members, continued

for credits and determines how many credits to assign to each experience.

Faculty professional development activities might include participating in grand rounds sessions, receiving training to become an admissions interviewer, or attending continuing medical education (CME) events.

Serving on a school or hospital committee, authoring journal articles, screening student applications, mentoring students, or volunteering at a charity clinic would be credited as service activities.

“We have found that the faculty like that their efforts are being recognized,” said George A. Williams, MD, chair of ophthalmology and CAPT at OUWB. “As a general rule, physicians are competitive by nature and they like to see that they are going beyond the minimum in meeting the requirements.” Administrators have observed that there is even competition to get involved with some of the activities that are eligible for program credits.

Faculty document their activities with an online tracking tool that was introduced in 2012 after Meaningful Participation started. Participating in a CME event is worth one credit, for example, and serving as a research mentor is worth three credits. Faculty members can also request that new activities for credit be added to the list.

During the school’s first three-year cycle of appointments, from late 2010 to late 2013, more than 80 percent of the faculty in clinical departments completed the Meaningful Participation requirements. “Some of those who didn’t meet the requirements and lost their appointments wanted the opportunity back,” said Williams. “So we had them return on a one-year probationary basis.”

Linda Gillum, PhD, associate dean for academic and faculty affairs at OUWB, said that the Meaningful Participation Program was a way to launch a new culture

“It allows our students to benefit from faculty who are fully engaged in the education and service initiatives of the school.”

— Linda Gillum, PhD, associate dean for academic and faculty affairs at OUWB

of faculty participation. “It allows our students to benefit from faculty who are fully engaged in the education and service initiatives of the school,” she said.

OUWB founding Dean Robert Folberg, MD, noted that the faculty developed the program and “took ownership of it.” Folberg, who is also chief academic officer of William Beaumont Hospital, said he has been contacted by several other medical schools that have expressed interest in developing similar programs.

Expanding the definition of scholarship for faculty advancement

Clark noted that faculty affairs deans can play an integral role in “leading institutions to move beyond the traditional ways of defining scholarship.”

Like OUWB, the University of Utah School of Medicine wanted to recognize and reward faculty contributions made in a broad range of areas. The school developed new tenure and promotion policies that help faculty

describe and claim credit for work outside traditional academic activities, including committee participation and community service.

“We have always had a large number of faculty involved with community engagement work, but they weren’t necessarily using that work to get promoted,” said Harriet W. Hopf, MD, professor and vice chair for faculty development in the Department of Anesthesiology and associate dean for academic affairs at the University of Utah School of Medicine. “Now we have given them language to [help them] take credit for that work, and we are showing them that the institution values it.”

Faculty are encouraged to demonstrate excellence in a particular service area, Hopf explained. For example, a faculty member could design a public health program, collect evidence of the program’s effectiveness, and then disseminate the results through publication, presentation, or other peer-reviewed means.

The school’s academic affairs team also made changes to an online CV that each faculty member is required to maintain. When faculty members add accomplishments to their CVs, check boxes now pop up asking them whether the work is related to community service or global health. That information is taken into account when faculty are evaluated for tenure or promotion.

Hopf reports that faculty have responded favorably during the review process to the broader criteria for advancement. “They were inspired by the ability to claim credit for accomplishments they felt would not be recognized as well under the old criteria, including team science, community service, educational scholarship, and innovation,” she said.

Game On: Building the Case for Games in Medical Education

—By Stephen G. Pelletier, special to the Reporter

Editor's Note: Throughout 2016, the Reporter will explore how medical schools and teaching hospitals are educating the next generation of physicians in an environment of discovery and innovation.

Do games have a legitimate place in medical education?

Researchers at Stanford University School of Medicine have assessed several years of experience with a game called Septris, which is modeled after the video game Tetris. Introduced in 2011, Septris helps medical trainees learn to recognize and treat sepsis, a potentially life-threatening complication of infection.

In research published last year in *Academic Medicine*, Kambria H. Evans, MEd, MA, and colleagues found that Septris helped to significantly improve users' knowledge in recognizing and managing the condition.

According to a 2015 Pew Research Center survey, 49 percent of American adults play video games. Many students come to medical school with an affinity for games, Evans said, adding that there is room to further develop gaming in medical education. "There is such an opportunity here because the interest is already there," said Evans, director of education and quality improvement at Stanford.

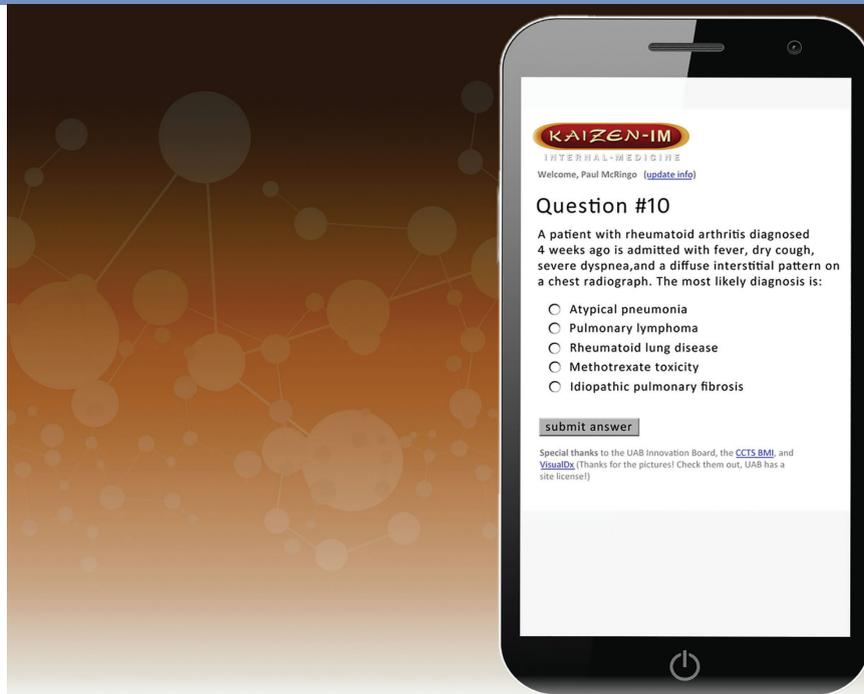
Students like games

Looking at the bigger picture, the Stanford researchers found that medical trainees respond well to game playing as a learning tool. When asked in 2015 to rank modes of learning such as lectures, small-group study, and simulations, 21 percent of Stanford's incoming clerkship students put gaming in their top three favorite ways to learn, as did 43 percent of incoming medical interns.

At the University of Alabama at Birmingham (UAB) School of Medicine, resident duty hour restrictions helped spark game development. James H. Willig, MD, MSPH, an associate professor, was concerned that the new Accreditation Council for Graduate Medical Education rules restricting the number of hours residents can be on duty would reduce the time for learning. To help fill that gap—and tap millennials' interest in games—Willig and colleagues developed Kaizen, an online quiz game that launched in 2013.

Kaizen, named after the Japanese term for "continuous improvement," asks multiple choice questions about clinical knowledge. Students compete to answer questions that are designed to be responded to quickly—during an elevator ride, for example. "The idea is that by the time I get off the elevator, I have read a couple of sentences regarding the question's explanation, and I have a piece of knowledge that I can go apply," Willig said. Originally designed for residents, the Kaizen platform has been adapted by many programs in UAB's medical and nursing schools.

There was an 11.9 percent increase in correct answers among students who answered a Kaizen question incorrectly on the first try, according to research Willig and colleagues recently published in the *Postgraduate Medical Journal*. "This finding suggests enhanced knowledge retention at three and six months" for material shared through the game, Willig said. Moreover, the researchers noted, Kaizen kept trainees learning outside regular work and training hours.



The online quiz game Kaizen, developed by James H. Willig, MD, MSPH, at the University of Alabama at Birmingham (UAB) School of Medicine, gives students a chance to brush up on skills outside of regular work and training hours. Photo: UAB

"For me, and I assume for a lot of other MDs, it's fun to be competitive," said William Benton, MD, a third-year resident at UAB. "Kaizen takes learning that might tend to be boring and turns it into a team activity. Part of why I play is that I'm trying to do my best and beat other people, which makes it fun."

“There is great potential to use game mechanics, coupled with sound scientific design, to usher in a whole new generation of learning tools.”

— Adam Gazzaley, MD, PhD, professor of neurology, physiology, and psychiatry at the University of California, San Francisco, School of Medicine

Games and learning theory

B. Price Kerfoot, MD, EdM, an associate professor of surgery at Harvard Medical School, has conducted more than 20 large randomized controlled trials assessing the efficacy of online "spaced education" methodology—the process of repeatedly delivering information in chunks over time, in a test format, to improve knowledge retention and clinical practice patterns. That style of learning lends itself well to games. In a 2014 article in *Circulation Cardiovascular Quality and Outcomes*, Kerfoot and colleagues concluded that "educational games may be effective tools to engage health professionals, boost learning, optimize practice patterns, and improve patient outcomes."

Another investigator, Adam Gazzaley, MD, PhD, is a professor of neurology, physiology, and psychiatry at the University of California, San Francisco, School of Medicine, who studies gaming in the context of cognitive neuroscience. Games embody a closed-loop system, he said, in which the game constantly reads a gamer's performance and tailors itself to the user's abilities. Gazzaley believes games are a powerful way to deliver personalized education, which he said is especially valuable for medical students and residents "who are searching for truly optimal performance." For medical schools, he said, "there is great potential to use game mechanics, coupled with sound scientific design, to usher in a whole new generation of learning tools."

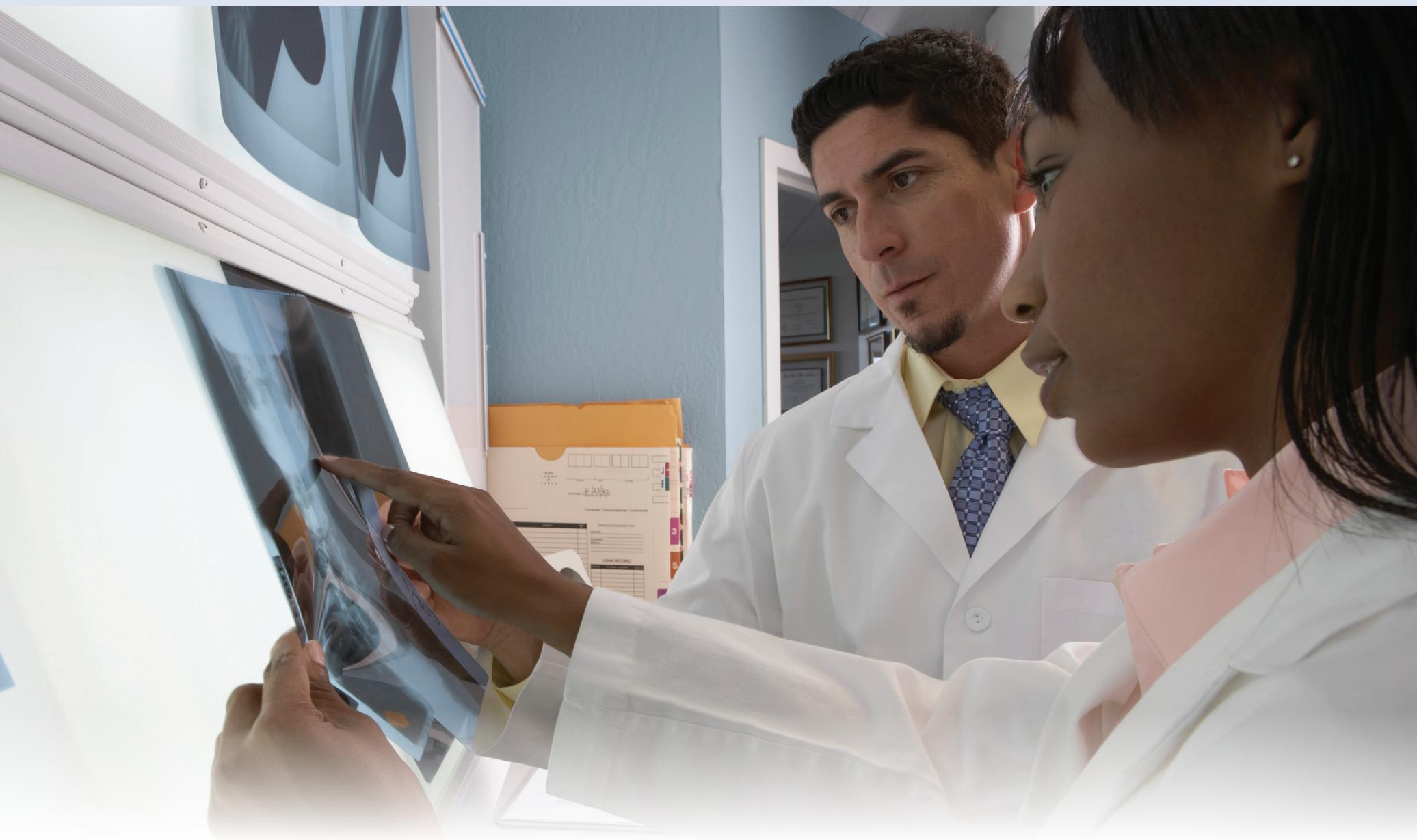
Many investigators say that further research is necessary to document gaming's efficacy as a pedagogical tool in medical education. There are other challenges to incorporating gaming into medical education. The tradition of games being used for amusement casts a cloud over the use of games for learning. And games can be expensive to develop. Stanford, for example, spent some \$50,000 in developing Septris.

Even as research continues, however, investigators are convinced there is promise in using games in medical education.

"Based on our data, well-designed games can fit very well within medical education," Kerfoot said. "There is tremendous potential in games and game mechanics to improve educational outcomes, in terms of improving clinicians' knowledge and their practice patterns, as well as the health outcomes of their patients. Support from medical leaders to promote investigation in this area would be a tremendous asset for the development of the field."

Teamwork: The Heart of Health Care

—By Rebecca Greenberg



Fresh out of medical school, residents are thrown into a fast-paced world of intense schedules and electronic medical records. At the same time, they must assume multiple roles—learner, teacher, caregiver, leader—all while navigating the complex culture and social structure of health care delivery.

How smoothly physicians make this transition often depends on the teams they have the fortune or misfortune of being part of, said Brenessa Lindeman, MD, MEHP, chief resident of the Department of General Surgery at Johns Hopkins University School of Medicine and member of the AAMC Board of Directors.

“All the work we do as resident physicians is carried out within a team-based structure. Learners at all levels—medical students, residents, interns, and fellows—are critical to the overall functioning of the team,” she said. “It’s when people understand their roles, feel like their contributions are valued, and have a sense of belonging that we can deliver patient care in the most optimal way.”

How important is teamwork in health care? More than 70 percent of medical errors are attributable to dysfunctional team dynamics, according to a 2014 study in *Health Care Management Review*.

High-functioning health care teams can enhance medical education and improve outcomes. And they help team members feel invested in their work. Poorly

functioning teams often achieve the opposite. Numerous peer-reviewed studies show that group dysfunction leads to burnout, emotional distress, depression, substance abuse, reduced productivity, and other psychosocial issues.

“Health care is a high-stress environment that requires a lot of people from different perspectives to work together,” said Michael Leiter, PhD, an organizational psychologist and professor at Acadia University in Wolfville, Nova Scotia. “When communication and cooperation unravel among a group of health care providers, patient care suffers.”

“It’s when people understand their roles, feel like their contributions are valued, and have a sense of belonging that we can deliver patient care in the most optimal way.”

— Brenessa Lindeman, MD, MEHP, chief resident of the Department of General Surgery at Johns Hopkins University School of Medicine

The importance of social dynamics

Leiter and experts such as Christina Maslach, PhD, an authority on workplace burnout and professor of psychology at the University of California, Berkeley, met at Georgetown University Medical Center in October 2015 for the CENTILE International Conference to Promote Resilience, Empathy, and Well-Being in Health Care Professions. A major area of focus at the conference was the importance of social dynamics in medical education and health care delivery.

Maslach has been investigating the interplay of social relationships in the workplace since 1971 and created the Maslach Burnout Inventory, the most widely used instrument for assessing burnout today.

“The people you work with are the people who can understand you the best and be the best source of support, but they also have the power to make your life miserable; what people refer to as a socially toxic workplace,” Maslach said. “So the quality of those social relationships and how to make them function as positively as possible is really critical in terms of making things go well or badly.”

Workplace harmony hinges on community, she explained, and if the community is weak and colleagues are unsupportive—or engage in incivility and bullying—it is difficult to resolve conflict and the team suffers.

Leiter’s research shows that sarcastic remarks, cruelty in moments of crisis, never apologizing, or simply failing to say hello to a colleague can take an emotional toll. “Small things have a lot of power,” he said. “The nice thing is that they are changeable; however, groups get stuck.”

Civility, respect, and engagement

Communication is essential to resolving conflict, said Maslach, but often there is a lack of training to address

matters such as, “How do we talk to each other? How do we raise issues? How do we solve conflicts? How do you build trust and support so that if something goes wrong, people don’t hide it or fail to resolve it or get worried that they’ll get in trouble, but instead actually work together to get it solved?”

At CENTILE, Leiter discussed CREW (Civility, Respect, and Engagement at Work), an intervention strategy that has been used in several health care settings to address interpersonal issues between colleagues.

After implementing CREW at the Veterans Health Administration, data published in the *Journal of Applied Behavioral Science*, 2009, showed a “significant improvement” in perceptions of workplace civility that “lend evidence to our claim that CREW interventions cause improvement in civility.” A 2012 study on Canadian health care workers yielded similar results.

At the Geisel School of Medicine at Dartmouth, Catherine F. Pipas, MD, MPH, assistant dean for medical education and professor of community and family medicine, teaches courses on team improvement. First-year medical students are broken into groups of four and five within their anatomy teams. Each group tracks the team’s collective vision, goals, and role assignments, in addition to how individual team members are progressing in terms of authenticity and resilience.

“We are all at risk for many, many reasons,” said Pipas. “We are in a health care field where we are constantly giving. We lack control, have a heavy workload, and have increased autonomy—all factors that put one at risk for burnout. So, it’s important that we have trusted relationships so we can depend on others to look at us and say ‘You are not performing’ or ‘We are seeing some change in your patterns; what’s going on and how can we help?’”

Pipas hopes taking time to examine team dynamics will give students a solid foundation. She also emphasized the importance of self-care through mindfulness, exercise, a balanced diet, adequate sleep, time away from technology, and positivity to ward off burnout and other maladaptive work-related behaviors.

A sense of belonging

“Successful teams value individual differences and provide outlets for unique contributions,” said William E. Bynum, MD, attending faculty at Fort Belvoir Community Hospital, in Fort Belvoir, Va.

In March 2016, Bynum and Lindeman published a commentary in *Academic Medicine* on learner mistreatment, which sometimes can be triggered by differences such as race, gender, sexual orientation, social views, level of extroversion, mental health challenges, subspecialty, or highest professional degree. Bynum said that successful teams leverage these differences and offer members a sense of belonging. “If there is a feeling you can’t speak up or that you are not psychologically safe bringing what you have to offer to the table, that can really undermine a highly functioning team.”

Strong teams take time to form, which Bynum said is challenging in a rotational model that switches every four weeks. “Just as you begin to develop cohesion and get to know each other, you are off to a new group with a different set of personalities.” He noted that it is up to attending, chief, and senior residents to set the tone. “There’s a lot of power in positivity, acknowledging that things are going to be hard at times, but as a group you are going to remain as positive as possible and support each other.”

Maslach agreed, “It’s important to recognize people in a positive way when they do something good. Rather than say, ‘Well, you did your job, big deal, so what,’ if you periodically say, ‘You really handled that patient well, nice job,’ that goes far. It’s huge. It doesn’t cost anything, but you have to be sensitive enough and willing to care about each other.”

Alison J. Whelan, MD continued from front page

medical student education in 1997. During her tenure, she coordinated the creation of the Practice of Medicine curriculum and played a key role in launching the standardized patient program. She has been instrumental in developing faculty education programs and in fostering research in medical education methods.

As chief medical education officer, Whelan will lead AAMC initiatives to transform the current models of education and workforce preparation across the full continuum of medical education. She also will direct AAMC efforts that support medical education officers, regional campuses, education researchers, students, and residents.

Priming the Medical School Pipeline

Schools Reach Out to Teens in Minority and Underserved Communities

—By Robin Warshaw, special to the *Reporter*



Rural, minority, and impoverished communities are feeling the impact of too few physicians. With the physician shortfall projected to be as high as 94,700 by 2025, medical schools are introducing pipeline programs to increase qualified applicants from middle and high schools in these underserved areas. The hope is that these students will seek careers in the health professions and then choose to practice in their home communities.

Students from underrepresented groups often do not receive the education, career guidance, or community support that make going to college—let alone going to medical school—a possibility for them. These students may know few health care professionals, especially from backgrounds similar to their own. They come from families and locales with limited economic resources or their schools may not offer advanced math and science courses.

Intervening as early as possible to provide exposure, enrichment, and support gives young people a better chance of becoming medical students, said Marc Nivet, EdD, MBA, chief diversity officer for the AAMC. “If we wait until college, we may have lost a lot of really talented youth who have the potential and ability to become the physicians we need. Medical schools need to grow and nurture the supply of talent early on by working with kids in grades K–12.”

Pre-college pipeline programs range from in-school academic enrichment, tutoring, and community service to concentrated summer experiences, often held on medical school campuses.

Florida State University College of Medicine (FSUCOM) in Tallahassee has an outreach program for middle and high schools known as SSTRIDE (Science Students Together Reaching Instructional Diversity and Excellence), which serves seven counties with primarily African American, black, Hispanic/Latino, rural, immigrant, or migrant populations.

“Our overriding goal is for the students to gain skill proficiency in math and science, get exposure to health careers, develop a passion for medicine, and be successful and college ready,” said Thesla Berne-Anderson, MS, director of undergraduate advising and outreach at the medical school. The program features an academic science curriculum, along with professional development, hands-on experiences, and field trips. Culturally diverse college undergraduates serve as tutors and mentors.

Among SSTRIDE students tracked, 98 percent enter college and 65 percent choose a science, math, or health major. Jonathan Reid Hester is one of them. Hester participated in SSTRIDE starting in seventh grade at his rural school. “I didn’t know what I wanted to do with my

life,” he said. “[The program] was very influential.” Now a third-year medical student at FSUCOM, Hester plans to return to his rural community in Okaloosa County to practice after fulfilling a scholarship-related commitment to the U.S. Air Force.

Uchenna Ikediobi, MD, MPH, who began SSTRIDE in ninth grade, is another success story. “[Becoming a doctor] had been in the back of my mind...but the vision to make that happen was birthed through my involvement with SSTRIDE.” Ikediobi, a postdoctoral fellow in infectious diseases at the Yale University School of Medicine, will join the primary care faculty at the VA Connecticut Healthcare System, West Haven, in August and continue her research and teaching at Yale.

Cultural identity and self-confidence

Building cultural identity and self-confidence is part of the goal of the Dream Makers Health Careers Program, an effort since the mid-90s of the University of New Mexico Health Sciences Center (UNM HSC) Office for Diversity and several state school districts. “We want students to understand the wonderful depth, breadth, and richness they bring to the learning environment and to their patients and communities, said Valerie Romero-Leggott, MD, vice chancellor for diversity at UNM HSC.

Dream Makers groups meet twice a month, focusing on academics. English is not the first language for many participants who are often the first in their families to attend college. “We promote the development of students as advocates and leaders who are committed to serving the communities they come from,” said Romero-Leggott.

In addition, UNM HSC offers a nonresidential summer program on its Albuquerque campus. The Health Careers Academy offers more than 100 hours of math, science, and language classes; ACT test preparation; and exposure to medical careers and professionals.

The Indians Into Medicine (INMED™) program at the University of North Dakota School of Medicine and Health Sciences in Grand Forks is a summer pipeline program. The INMED Summer Institute draws from an area so sparsely populated that it is considered “frontier” rather than “rural,” said Eugene DeLorme, JD, director of the INMED program.

Students primarily come from 24 Native American reservations in North Dakota, South Dakota, Montana, Wyoming, and Nebraska, although others are eligible and have attended from as far away as Alaska. The Indian Health Service funds the program.

Seventh- through 12th-graders who participate in the program live on campus and attend six weeks of classes in biology, chemistry, math, physics, communications, and study skills. They participate in the medical school’s simulation laboratories and meet health care professionals, while also learning how medicine and Native American culture relate.

“The reality is, in their tribal communities, many don’t have access to this type of coursework,” said DeLorme. “[These students are] capable, they’re competent, and they thrive.”

Federal funding cuts eliminated other INMED programming for younger students, however, and budget cuts reduced enrollment in the summer institute from 90 grant-funded students in 2014 to 60 in 2016, DeLorme noted. HCOP’s budget, funded by the Health Resources and Services Administration, dropped from \$35.6 million in fiscal year (FY) 2005 to \$14.2 million in FY 2016. The AAMC has been advocating for increased federal funding for pipeline programs like this.

The need remains great, DeLorme stressed. “In tribal communities, young people [in high school] often don’t even have laboratories to do physics, chemistry, or biology.”

Getting teens engaged in community health care

The Health Professions Affinity Community (HPAC) program created at Northeast Ohio Medical University (NEOMED) puts teenagers at the center of health care change. “We recognized that students could and should do more. Going beyond simply showing and telling students about health careers, we empower them to improve the health of their communities,” said Erik Porfeli, PhD, assistant dean of community engagement and admissions.

Students in HPAC talk with people in their communities—often disadvantaged inner-city and rural areas—to identify a health concern such as depression or diabetes. The student group then partners with the community to develop a health improvement project, seek local resources to support the project, and to enact the project

and assess outcomes. Teachers, community leaders, and 30 AmeriCorps volunteers support the effort. Students then share project results with their community partners and other HPAC groups at the annual HPAC Scholar’s Day at NEOMED.

The program began five years ago, with 20 students in four schools. It now serves 2,000 students in about 150 HPAC groups. The young people have raised more than \$150,000 in grants, as well as community donations and in-kind support, Porfeli said, for projects benefiting nearly 15,000 Ohioans. Some students have later entered NEOMED’s pre-medical/MD programs that collaborate with six university partners.

HPAC is being replicated at about a dozen universities in Ohio and elsewhere, including Cleveland State University, Youngstown State University, and UNM HSC. In New Mexico, one group of high school students teamed with a local nonprofit serving homeless families to promote early childhood learning and development.

“Our students were so proud. They felt like they really made an impact,” said Diana V. Martínez, program manager in the UNM HSC Office for Diversity. “It reinforced their commitment to the health of their communities.”

The challenge now for medical schools is to scale up pre-college programming everywhere and build continuity between middle and high schools, said Nivet. “Collective action” is required to address the challenge, he maintained. “More than one medical school in a community or state must come together and leverage their resources to have the kind of impact needed.”

The Morehouse Pipeline: Reach One Each One

Omar Danner, MD, trauma director and associate professor of surgery at Morehouse School of Medicine (MSM), believed he could do more than provide medical attention to the young victims of violence he frequently treated at Grady Memorial Hospital in Atlanta.

To create a pathway to encourage underrepresented high school students to enter the health care professions, Danner formed a pipeline program called Reach One Each One with Grady Health System and colleagues from MSM and Emory University School of Medicine.

Entering its sixth year, Reach One Each One accepts high-performing juniors and seniors who gain exposure to different medical specialties and access to “a multitude of diverse professional role models” through an intensive 12-week course. “Our goal is to lower the barrier of access for disadvantaged youth—to tear down the walls that have previously held them back and allow them to peer in the world of health care,” said Danner.

Students not only observe clinical work, but receive career counseling, financial advice, and form relationships with professional mentors. About 61 percent of the program’s 90-plus participants have gone on to enroll in pre-med college programs.

—Rebecca Greenberg



About 30 Atlanta junior and senior high school students participate in the Reach One Each One (ROEO) program each year.



Each student receives a certificate and a white coat at the end of the program in a ceremony that includes family members.



From left, Drs. Omar Danner, Derrick Beech, and Ed Childs from Morehouse School of Medicine congratulating a student who completed the program.



MSM President and Dean Valerie Montgomery Rice, MD, talks to ROEO students.

Photos: Courtesy of Morehouse School of Medicine

When Less is More in Medical Care

—By Dana Cook Grossman, special to the Reporter



Photo: Jon Gilbert Fox

H. Gilbert Welch, MD, MPH, professor of medicine at Geisel School of Medicine at Dartmouth, is in many ways the typical triple-threat academic physician: he practices (general internal medicine), conducts research (on health care utilization), and teaches (epidemiology, biostatistics, and health policy within The Dartmouth Institute for Health Policy and Clinical Practice). But less typical is that he challenges orthodoxy in his research. He asks whether screening for cancer, in fact, “saves lives” and whether more medical care is really the path to a healthier society.

Also unusual in academic medicine is that Welch writes for the lay press, including the New York Times, as often as for peer-reviewed journals. He is the author or co-author of several books for the general public, including Overdiagnosed: Making People Sick in the Pursuit of Health; and Should I Be Tested for Cancer? Maybe Not and Here’s Why. His newest book is Less Medicine, More Health.

Reporter: The subtitle of your latest book is *7 Assumptions That Drive Too Much Medical Care*. Can you explain the premise?

Welch: I’m a conventionally trained physician and a great believer in medical care—it can do a lot of good, particularly for people who are acutely ill or injured. But there’s growing recognition that some people get too much medical care, especially those who are well and those near the end of life.

Some blame our fee-for-service system—the fact that doctors make more by doing more. But money isn’t the sole factor. The general public harbors fundamental assumptions about the value of medical care that lead them to believe that more medical care is always better. I want to help people understand that everything we doctors do has *some* [potential] harm, which requires balancing that with the benefits.

Reporter: Can you give an example of what you mean by “too much medical care”?

Welch: It’s the “too many” problem. Too many tests and referrals lead to too many diagnoses; that means patients are prescribed too many medications and receive too many procedures.

The poster child for overdiagnosis is South Korea, which has had a 15-fold increase in thyroid cancer incidence. Because of routine ultrasound scanning, thyroid cancer is now the most common cancer in Korea; thyroids are coming out by the thousands. Although not as dramatic, thyroid cancer incidence is up threefold in the United States. Yet it’s a disease that since 1940 has been an extremely rare cause of death but an extremely common finding at autopsy.

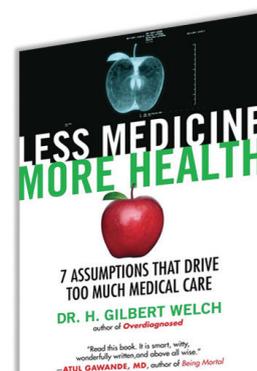
Reporter: Your work has received both high praise and criticism from physicians. How do you reconcile this?

Welch: Doctors are heterogeneous. There are lots of excellent doctors, but some have terrible financial conflicts and others are, quite understandably, true believers in their specialty—it’s hard for them to think they’ve overstated the value of what they do.

But my sense is that most physicians are well aware the system has gotten a little out of control. Nearly half of primary care physicians report their patients get too much care. They appreciate having someone articulate these ideas because they’re tough to explain in a typical office visit.

Reporter: What do you suggest that doctors say to patients who ask for more medical intervention than the physician feels is necessary?

Welch: That’s why I wrote the book. It takes time to question the conventional wisdom that more medical care is always better; it’s not going happen in a 10- to 15-minute clinic visit. Much of the messaging patients hear exaggerates the benefits of medical care and minimizes the harms. A lot is straight-out advertising or influenced by manufacturers, and until recently, the media was



pretty noncritical—everything was an “amazing breakthrough.”

That said, an increasing number of patients know that the system promotes too much medical care and are quite open to a more balanced approach.

Reporter: And doctors are increasingly accepting the idea that many patients get too much care?

Welch: Yes. A broad swath of the physician community today understands these problems and is happy they’re being vocalized. That

wasn’t the case 20 years ago, when I started this work. Back then, I was two or three standard deviations from the mean. But the mean has moved; I’m making the same case, but it’s closer to the mean.

At the same time, the problem is far from solved. Take the explosion in new diagnostics [genetic assays, biomarker testing, monitoring devices] and the push to sell them directly to the public. But is looking hard for things to be wrong really the path to a healthier society?

Reporter: In your book, you describe the rush to assume benefit from bone marrow transplantation for advanced breast cancer before [the procedure] was thoroughly tested. Do you see other examples of this?

Welch: Sure—liquid biopsies, the effort to detect tumor products in the blood. It’s possible that liquid biopsies will be the solution to cancer, but I seriously doubt it. I’m happy to have liquid biopsies rigorously tested but not to have them launched on the public before there’s evidence they really help.

I worry that if we test everyone for stray evidence of cancer cells, lots of people will be positive; we will see evidence that our immune systems deal with small cancers every day. Do we really want to label everyone as sick?

Reporter: What has inspired you to donate all your royalties to charity?

Welch: If I’m raising questions about financial interests, I want to be free of them myself—I don’t want to be accused of saying dramatic things just to sell books.

The seven assumptions that drive too much medical care, according to author H. Gilbert Welch, MD, MPH:

1. All risks can be lowered.
2. It’s always better to fix the problem.
3. Sooner is always better.
4. It never hurts to get more information.
5. Action is always better than inaction.
6. Newer is always better.
7. It’s all about avoiding death.

Early Adopters of Bundled Payments Discuss Challenges, Lessons Learned

—By Kim Krisberg, special to the *Reporter*

The Affordable Care Act may be known primarily for expanding insurance coverage, but the law has also been instrumental in launching new payment methods designed to help institutions continue to provide quality patient care while reducing costs. One of those efforts is known as bundled payments—a method that rarely makes headlines but is quietly transforming the traditional way of care delivery.

Administered by the Center for Medicare and Medicaid Innovation (CMMI), the Bundled Payments for Care Improvement (BPCI) initiative combines Medicare payments for all services related to one of 48 clinical episodes of care. Providers may participate in one of four models.

Most academic medical centers participate in Model 2 of BPCI, in which Medicare sets a condition- or procedure-specific target price for the patient's complete care during a hospital admission and 30, 60, or 90 days post-discharge. The provider's actual Medicare fee-for-service payments are reconciled against the target amount. If total payments fall below the target, the provider receives these savings as a payment from Medicare. Conversely, if the payments exceed the target, the provider owes money to Medicare.

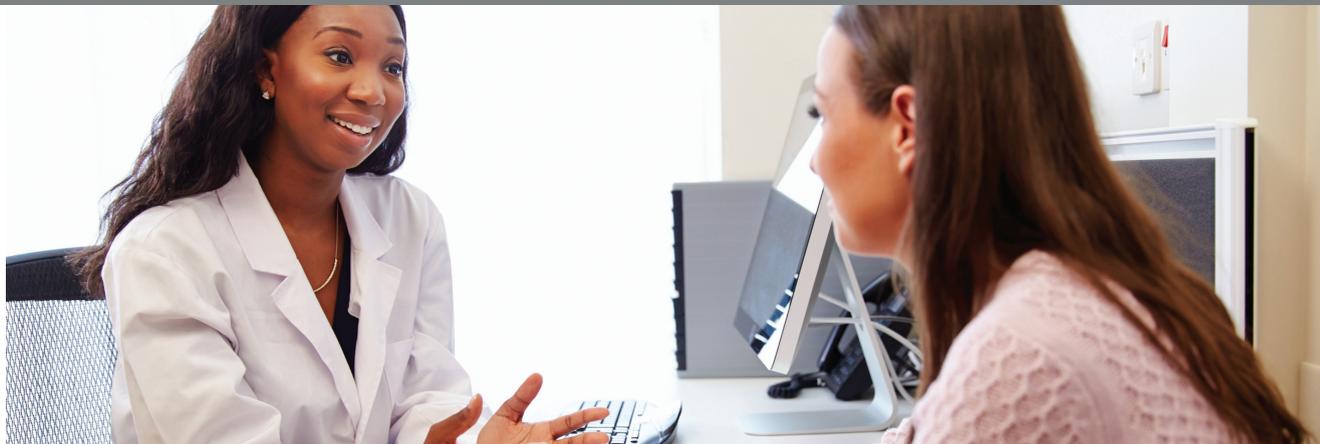
This patient-centered model is intended to promote better coordination of care and ultimately improve health outcomes. It offers an incentive for providers to focus on quality of care over quantity and to address any problems that also result in revenue loss. And the model prepares institutions for a future in which Medicare reimbursement will be increasingly aligned with quality metrics.

NYU Langone Medical Center was the first teaching hospital in the AAMC Facilitator-Convener Group to join the risk phase of BPCI. The medical center chose to focus on major joint replacement of the lower extremity, spinal fusion, and cardiac valve replacement.

"Just going through the process and making the bundle work make all aspects of care delivery better," said NYU Langone's Richard Iorio, MD, chief of adult reconstructive surgery and the William and Susan Jaffe Professor of Orthopaedic Surgery. "When you analyze the data, act on the data, and use it from an evidence-based standpoint, you can't help but get better."

Iorio said that surgeons are compelled to take a more holistic view of patients within a bundled framework. For example, before surgery, patients are now routinely counseled on issues such as tobacco use, depression, and diabetes—conditions and behaviors that up the risk of post-surgical complications and increase the likelihood that the episode payments will exceed the target amount.

All of Langone's efforts have paid off. In March 2016, NYU researchers presented data on the impact of BPCI on total joint replacements at a meeting of the American Academy of Orthopaedic Surgeons. On average, Langone's discharges to inpatient rehabilitation declined from 44 percent to 28 percent; 30-, 60-, and 90-day readmissions decreased; and Medicare cost of care per episode decreased nearly \$7,000 over three years—all while sustaining and improving quality of care.



Iorio said the idea that bundling is an administratively driven process is a big misconception. Instead, he said bundled payments must be a physician- and surgeon-driven effort. "If physicians and surgeons aren't intimately involved, it won't work. There needs to be completely transparent data transmission between doctors and hospitals so they can understand how behavior affects costs and how to make things more efficient."

At Northwestern Memorial Hospital in Chicago, access to historical Medicare claims data and enhanced use of internal data proved critical to implementing BPCI, said Hannah Alphas Jackson, MD, MHSA, program director for value-based delivery at the hospital and an assistant professor at Northwestern University Feinberg School of Medicine.

For instance, congestive heart failure (CHF) data informed strategies to reduce readmissions, and stroke data jumpstarted conversations on how the hospital was partnering with rehab facilities, said Jackson. Previously, cardiologists were unaware when CHF patients entered the hospital, as these patients often present with a different primary clinical need. The hospital now produces a daily list of all patients with heart failure admitted anywhere in the facility. The richer data not only support the BPCI effort, but have had a positive trickle-down effect, by identifying new patients for clinical trials and advanced heart failure programs, Jackson said.

Penn State Hershey Health System joined the risk phase of BPCI in 2014 with 90-day stroke and CHF episodes. For the many patients who live hours from the hospital and get follow-up care outside the system's primary care network, following them after discharge was challenging but necessary for success, said Craig Mancina, MHA, project manager at the health system. Stroke care improved at Hershey and in the broader region.

Hershey's telestroke center provides real-time audiovisual access to a neurological consult, which has enhanced the ability of partner facilities to care for stroke patients where they live. Having the telestroke service, however, also means that the stroke patients treated at Hershey are often the most severe and complicated cases.

Consequently, Hershey's historical Center for Medicare and Medicaid Services (CMS) stroke data on which its target prices are based do not reflect these changes in the stroke patient population.

While some providers may believe the CMS pilot threatens their autonomy and reimbursement, the ideal way to view bundled payments is as an "opportunity to coordinate care across the continuum," said Gregory Golladay, MD, Adult Reconstruction Fellowship director and associate professor of orthopaedic surgery at Virginia Commonwealth University (VCU) Health.

To date, the most important change to emerge at VCU is ensuring that patients are as healthy as possible before surgery to reduce the risk of post-operative complications, Golladay reported. The change meant VCU Health had to revamp coordination of screening services and specialty care for joint replacement patients. Today, 100 percent of patients scheduled for elective joint replacement surgery are directed to the health system's Preoperative Assessment Communication and Education clinic. The results so far include a reduction in the severity of kidney injuries among joint replacement patients and a 75 percent reduction in blood transfusions following surgery.

Although CMS eventually excluded the Richmond area where VCU resides from the mandatory hip and knee replacement bundled initiative that began in April 2015, the health system decided to stick with the bundled approach anyway.

"Just knowing where you stand in terms of the data and then being able to have the courage to admit where you have room for improvement has made a huge difference for us," said Golladay. "It's just like a 12-step program—first, you have to admit you have a problem."

Bundled Payments: Examples in Practice

The AAMC Examples in Practice series includes interviews with leaders at five institutions that have tested the BPCI bundling model. This free download can be accessed at www.aamc.org/initiatives/bundling.

In addition, the AAMC launched a collaborative to support academic medical centers participating in the CMS Comprehensive Care for Joint Replacement model that launched in April 2016 for Medicare patients in more than 60 major metropolitan regions. For information, please email aamcbundledpayments@aamc.org.

In Brief

New Research Examines the Consumer Perspective on Access to Health Care

Recent changes in U.S. health care policy were designed to increase consumers' access to health care services, especially among low- and middle-income individuals. A recent AAMC *Analysis in Brief* reports on how consumers' access to health care has changed in the period leading up to and following the implementation of Medicaid expansion and insurance exchanges through the Affordable Care Act and examines the variations in access to care that persist. According to the report, barriers to care have shifted from cost to difficulty in finding a provider. For information: www.aamc.org/march2016/consumerperspectiveonaccesstohealthcare

AAMC Publishes Strategic Planning Guide on Diversity and Inclusion in Academic Medicine

An updated edition of the AAMC's *Diversity and Inclusion in Academic Medicine: A Strategic Planning Guide* offers a roadmap for medical schools and teaching hospitals to help institutions develop a sustainable culture of diversity and inclusion. It also includes updates to the Liaison Committee on Medical Education diversity elements and the latest Supreme Court rulings on diversity and inclusion. For the first time, the guide includes an online toolkit with directions, context, institutional examples, and resources for navigating the strategic planning process. For information: www.aamc.org/strategicplanningguideupdate

Academic Medicine New Conversations Series to Focus on Global Health Education

Later this year, the ongoing *Academic Medicine* series New Conversations will begin exploring how to prepare a global health care workforce to address health needs around the world. In an editorial announcing the new topic, David P. Sklar, MD, editor-in-chief, encouraged members of the academic medicine community to "think and communicate creatively about global health education." Debra F. Weinstein, MD, deputy editor, provided additional details in a separate editorial, noting that the topic comes at "a pivotal time for medical education." The journal is now accepting submissions on this topic. For information: <http://www.aamc.org/globalhealthcareworkforce>

Latest Edition of Student Guide on Medical School Admissions Now Available

The AAMC recently released the 2016 print edition of the *Official Guide to Medical School Admissions*. New to this year's publication are worksheets with online access to help users track their progress and make strategic decisions during the application process. The guide is available in Kindle and e-book formats and also offered as a package with a one-year online subscription. For information: <http://www.aamc.org/msar2016>

U.S. Medical Schools Increase Enrollment by 25 Percent Since 2002

Medical school enrollment is up 25 percent since 2002, according to a new AAMC report, *Results of the 2015 Medical School Enrollment Survey*. The report indicates that first-year U.S. medical school enrollment will reach 21,434 students by 2017–18. According to the report, medical schools nationwide are responding to community health needs through a variety of initiatives. In 2015, 84 percent of schools reported they had or planned to have within the next two years specific admission programs or policies dedicated to recruiting a diverse student body interested in caring for underserved populations. In addition, the report describes concerns among medical school deans about the number of training positions for future graduates. For information: www.aamc.org/2015enrollmentsurvey

CMS Releases Interactive Map Charting Medicare Disparities

The Centers for Medicare and Medicaid Services Office of Minority Health released an interactive map that geographically charts health disparities among Medicare beneficiaries. The tool can be used to search disparities in health care spending by race, health outcomes, and use, in addition to location. The map aims to provide researchers and medical professionals with a better understanding of the social disparities and determinants of health. For information: <https://www.cms.gov/About-CMS/Agency-Information/OMH/OMH-Mapping-Medicare-Disparities.html>

First Class Mail
U.S. Postage
PAID
Dulles, VA
Permit #382



Association of
American Medical Colleges
655 K Street, N.W., Suite 100, Washington, D.C. 20001-2399
T 202 828 0400 F 202 828 1125
www.aamc.org

AAMC Calendar: July 2016

- | | |
|---|--|
| 9–12
2016 Early Career Women Faculty Professional Development Seminar
The Inverness Hotel and Conference Center
Englewood, Colo.
Information: Ronalyn Teodoro
rteodoro@aamc.org
202-909-2002 | 14–17
2016 Group on Faculty Affairs Professional Development Conference
Westin Bayshore
Vancouver, B.C.
Information: Melanie Fronhofer
mfronhofer@aamc.org
202-741-5502 |
|---|--|