Medical School Enrollment Reaches Record High; More Residency Positions Needed

—By Sarah Mann

As the nation faces a shortage of 90,000 doctors over the next decade, the number of students enrolling in medical school reached an all-time high this year, according to AAMC data released in late October. At the same time, the data show healthy diversity gains among applicants and enrollees.

The total number of students applying to medical school increased by 3.1 percent over 2011 to 45,266 applicants. First-time applicants—considered a measure of interest in medicine—reached a record of 33,772, compared with 32,654 in 2011. Total enrollment rose by 1.5 percent to 19,517 students, another record high. Among men, the number of applicants and enrollees increased, particularly among non-U.S. or permanent resident (i.e., foreign) applicants, reaching 12,045 and 6,065, respectively.

“This year, we saw unprecedented opportunity, if only we have the courage to grasp it.” To view Laret’s speech, please visit https://www.aamc.org/annualmeeting.

To reinforce his point, Kirch cited the book Multipliers: How the Best Leaders Make Everyone Smarter, calling for leadership that will multiply the “intelligence, creativity, and commitment of our faculty, students, residents, and institutional leaders...to create a sustainable future for academic medicine.” (Editor’s Note: See page 10 for more information about Multipliers.)

continued on Page 4

Data Shot

First-Time Enrollees to U.S. Medical Schools, 2005-2012

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* Includes one matriculant of unknown citizenship

Source: AAMC Data Warehouse: Applicant Matriculant File as of 10/16/12

Note: Column totals will exceed the “Total Matriculants” row total indicating multiple responses by the matriculants. This reflects the AMCAS race and Hispanic origin data collection using the two question, multiple response design.

continued on Page 4
Dedication to Diversity, No Matter the Outcome of the Fisher Case

All eyes are again on the Supreme Court after last month’s oral arguments in Fisher v. University of Texas at Austin. Abigail Fisher, a student who was denied admission to the university in 2008, is asking the Court to revisit the university’s admissions process under the court’s 2003 decision in Grutter v. Bollinger, or alternatively, to revisit the Grutter case’s holding. The Grutter decision allows consideration of race as part of a many-factored, individualized selection process to achieve a diverse student body.

Diversity in higher education is perhaps nowhere more important than in the health professions. Though we are making breakthroughs in the medical profession, the unfortunate truth is that not everyone benefits equally from these advancements. Significant health disparities persist along lines of socioeconomic status, urban or rural residence, and, most notably, race and ethnicity, with minority populations continuing to suffer disproportionately from numerous health conditions such as heart disease and diabetes.

The nation’s medical schools and teaching hospitals have a unique opportunity, as well as a responsibility to society, to produce culturally competent physicians equipped to care for an increasingly diverse population and to combat health disparities by addressing sociocultural barriers to care. Being trained in a truly diverse environment alongside students with different socioeconomic statuses, languages, nationalities, sexes, gender identities, sexual orientations, religions, geographic backgrounds, abilities, ages, racial identities, and ethnicities is fundamental to the development of a health care workforce fully prepared to meet the needs of our nation today and in the future.

As the Supreme Court recognized in Grutter, “Student body diversity promotes learning outcomes, better prepares students for an increasingly diverse workforce and society, and better prepares them as professionals.” Indeed, medical students who are educated in a diverse student body report that they are better able to work with patients of diverse backgrounds. A diverse learning environment also promotes effective problem-solving and teamwork. As demonstrated by the work of the University of Michigan’s Scott Page, Ph.D., groups of people with diverse backgrounds and ways of viewing the world outperform groups of people who have similar backgrounds and perspectives.

Composing a diverse student body results not from a mechanical exercise of selecting students based on isolated, sought-after features, but rather from a flexible, highly individualized admissions process through which balanced consideration is given to the multiple ways in which each applicant may contribute to the medical profession. Known as holistic review, this process considers an applicant’s academic abilities, as well as personal attributes such as perseverance, the ability to overcome obstacles, and compassion, thereby acknowledging that good grades and high test scores are only part of what makes a good physician. In many cases, race and ethnicity can shape an applicant’s experiences and cultural identity, and provide context essential to appreciating the personal attributes the applicant offers to the medical profession.

Considering an applicant as a whole, including in some cases the applicant’s relevant racial identity and ethnic background alongside other factors, permits medical schools to not only seek students who will succeed in medical school, but also will contribute to a workforce that excels in diagnosing illnesses, advancing medical research, and providing care to an increasingly diverse population of patients in their most vulnerable moments.

In Fisher, the AAMC submitted an amicus curiae brief along with 29 other leading health professional and educational organizations emphasizing the importance of thoughtful consideration of race in admissions in improving our nation’s health. While no one can predict the outcome of this particular case, we will continue to work alongside our members to strive for excellence through diversity consistent with whatever constitutional framework the court applies and with each medical school’s unique mission.

Medical schools are developing new and exciting ways to get to know applicants to ensure that the students they admit are not only smart, but also will be good physicians. Some schools employ “multiple mini interviews,” which allow them to probe dimensions ranging from applicants’ responses to novel situations to their reactions to an ethical conflict. Other schools observe applicants’ interpersonal skills in mock interviews with patient-actors, while still others are designing hybrid interview approaches that allow them to probe a wide variety of attributes.

The AAMC is undertaking efforts to ensure the medical school application process is even more valuable to admissions committees. In an effort to make recommendation letters more uniform across applicants, next year we will issue a standardized set of guidelines for writers of letters of recommendation for the 2014 entering class application cycle. Additionally, we are looking into adding a new section to the American Medical College Application Service® (AMCAS®) to probe applicants’ intra- and interpersonal competencies by asking them to reflect on experiences in which they have demonstrated traits such as teamwork, cultural competence, or integrity and ethics, among others. We also are considering the development of a centralized, situation-based judgment test to probe students’ intra- and interpersonal competencies in response to situation-based prompts.

While an adverse decision in Fisher likely will make our work more difficult, it will in no way diminish our commitment to diversity in medical education. The innovation taking place every day at medical schools and teaching hospitals, as well as the work under way at the AAMC to transform admissions, will ensure that tomorrow’s doctors are prepared to lead our nation as we work to achieve health equity.

Darrell G. Kirch, M.D.
AAMC President and CEO
Diversity in research participation is a national priority and holds great importance to accelerate clinical and public health advances. As researchers, our obligation is to remove the stigma and mystery surrounding research and promote literacy among the public and community health providers.

For minority, uninsured, and rural communities, persistent underrepresentation in medical research remains a dilemma. These communities experience significant health disparities, but do not benefit equitably from new discoveries. We know that when minorities are not represented in clinical trials, it will be difficult to ensure that the results are relevant to any or all racial and ethnic communities. For example, if a particular intervention is effective in treating heart disease, but the clinical trial included only white patients, can we be sure the same intervention will be effective for black or Hispanic patients?

Without greater diversity, we cannot make progress. Minority and uninsured populations face multiple barriers to research participation. Exacerbating the situation are historical research abuses, as well as design factors and trial eligibility factors, such as excluding patients with multiple chronic conditions. Also contributing to the problem is a lack of understanding about the benefits of new discoveries and regulations that protect trial participants.

Over the past 15 years, research among African-American, underserved minority, and rural communities in Maryland has identified key barriers that hinder participation and contribute to public distrust. This research also has revealed the role physicians play in encouraging their patients to participate in clinical trials.

With support from the National Institutes of Health, the Office of Policy and Planning at the University of Maryland School of Medicine in 2009 established the Bioethics Research Center to address these issues comprehensively. Through community-academic partnerships, science-guided advocacy, and policy research, the center assesses the barriers in clinical trial participation among urban and rural communities. Our goal is to enhance public trust and understanding of research and, ultimately, to reduce health disparities.

The center uses an evidence-based model that I initially developed with oncologist Mary DeShields, M.D., to increase clinical trial participation among rural cancer patients. The model, which received a National Best Practice Award in 2004 from the Department of Health and Human Services, combines research on barriers to clinical trial participation with policy and education about clinical trials for the general public, patients, community nurses, and primary care physicians.

In partnership with community organizations, we have identified factors that can guide us as we develop educational programs and interventions. We determined that community members lack knowledge about ethical protections and regulations and the importance of research. They also are concerned about “helicopter research,” in which academics come to a community to conduct research and leave once they collect their data, rather than share the results with the community. This phenomenon perpetuates mistrust, causing community members to feel like researchers took advantage of them. On the other hand, we found that community clinicians also have concerns, including a fear they might lose control over patient care, or even lose their patients to academic providers. Many community-based providers do not understand how to refer patients to studies or how to work with investigators.

Partnerships between medical schools and teaching hospitals and community groups are essential to eliminate barriers to research participation among the public. Such partnerships also serve a vital role to researchers, helping them to translate findings into culturally appropriate interventions. At the center, we have a number of formal partnerships for research, education, and training. We work with two Area Health Education Centers—Eastern Shore and Western Maryland—which foster partnerships among students, community organizations, and academic institutions. The center also has partnerships with rural Bel Alton Community Development Corporation and High School, the National Newspaper Publishers Association, and the Eastern Shore Cancer Research Network. Through these key partnerships, we implemented training on research ethics, as well as “clinical trials 101” educational programs. Each organization brings strengths and community credibility from its respective geographic area.

In Maryland, we use a multilevel, community-partnered approach to implement many center initiatives.

The center’s signature community-tailored educational program, the Bioethics Mini Medical School, addresses barriers such as fear and historical research abuses. We solicited community feedback to develop the curriculum, course syllabus, faculty presentations, and background readings. This free, four-week educational program teaches clinical trial fundamentals, research ethics, protections for participants, and their relationship to health disparites. To date, more than 900 individuals in rural and urban communities across the state have participated.

The Mini Medical School has yielded positive outcomes. More community members have volunteered for the Institutional Review Board at the University of Maryland and have shown a greater willingness to participate in clinical trials. In view of the development of translational science and personalized medicine, we also are using this program to discuss the role of biospecimen donation, informed consent preferences, and privacy concerns of the public.

In addition, the center offers continuing education programs for community nurses, physicians, and other health care professionals. These two- to three-hour sessions have resulted in a greater willingness to refer patients to clinical trials and additional requests for continuing medical education (CME) on advances in research and clinical management. To date, more than 120 health providers have participated in our accredited CME programs.

It is essential that researchers foster public trust to increase research diversity. By facilitating research literacy among the public and community health providers, we are demystifying and destigmatizing research, while contributing to efforts that are accelerating medicine and public health.
The themes of innovation and the need for leaders who can inspire new ways of thinking echoed in the keynote address, delivered by Walter Isaacson, CEO of the Aspen Institute and author of biographies on Apple co-founder Steve Jobs, Albert Einstein, and Benjamin Franklin.

"In the academic medicine field, you really are going to have to 'think different' now," Isaacson said. "You have a perfect storm of change that is challenging you. Change is always a challenge, but it's also an opportunity to innovate and think different."

Noting that Steve Jobs first coined the phrase "think different," Isaacson explained that Apple's success was in Jobs' "ability to inspire people, to be a multiplier, and to push people to do things they thought they couldn't do."

In explaining how innovative thinking contributed to Benjamin Franklin's success, Isaacson said the "amazing thing" about America's founders is that they formed a team of "truly smart people, very passionate people, and people with great rectitude and respect." It was Franklin, Isaacson said, who "knew how to pull them all together, to be a multiplier, to make them all work in harmony."

Three plenary sessions, dubbed the Innovation Arc, encouraged attendees to consider new ways to address the challenges facing academic medicine.

Eric J. Topol, M.D., a cardiologist and director of the Scripps Translational Science Institute, discussed how technology—from mobile apps that enable patients to instantly send blood pressure readings to genomics that can individualize treatments—has "reshaped the future of health care," adding that the digital revolution represents a new form of medicine that is more precise and builds a stronger connection between doctors and patients.

"I think this represents a Gutenberg moment in medicine," Topol said, noting that the Gutenberg printing press allowed for easy dissemination of information.

"Today, we have the smartphone and tablet that allow individuals to learn about their medical story. The future is bright with this extraordinary potential that we have yet to actualize."

In another Innovation Arc session, Salman Kahn, founder of the nonprofit Kahn Academy, described how he transformed education through free, online tutorials that allow students to study at their own pace. By moving traditional lectures online, the Kahn Academy allows students to study on their own time, reserving classroom time for interaction and discussion.

"Whether you're in a 5th grade math class or you're a first-year medical student, sitting in a room of 300 people and listening passively while someone lectures is not the best use of your time," Kahn said, adding that his model "liberates the classroom."

In the final Innovation Arc session, John Kao, M.D., chair of the Institute for Large-Scale Innovation, explored how participants can determine what innovation will mean at their individual institutions. "Innovation is not just creativity and new ideas," Kao said. "We all have new ideas. But without a crisp, clear definition, you can't get to innovation."

In addition to plenary sessions featuring well-known speakers, the meeting offered several opportunities for AAMC constituents to network and exchange ideas on how to effect change.

On Monday, a Town Hall meeting provided a forum for discussion on policy issues. Kirch addressed the AAMC's efforts to prevent federal cuts to graduate medical education (GME). Emphasizing that GME is the most frequently raised issue when he visits medical schools, Kirch issued a rallying cry for AAMC-member institutions.

"We cannot afford anything less than a full-court press [on GME]," he said. "We will make sure the issue is front of mind for [congressional] members and their staff."

Also on Monday, five opinion leaders delivered separate Thought Leader sessions on topics such as health care reform, health disparities, and the patient-physician relationship.

In the days leading up to the presidential election, many discussions focused on how the election outcome would affect academic medicine. On Election Day, the AAMC hosted a well-attended Election Night Gathering, where constituents watched election results roll in.

The 2012 Annual Meeting also featured award presentations for individual and institutional accomplishments in education, patient care, research, and community service. For the full list of awards, please visit https://www.aamc.org/initiatives/awards/2012awardsrecipients.

Medical School Enrollment, continued

Medical School enrollment has increased, said AAMC President and CEO Darrell G. Kirch, M.D.

But Kirch noted that unless Congress lifts the 1997 limits on residency training positions, the increased enrollment will not translate into a single new doctor to alleviate the shortage. "Medical schools are doing all they can to help avert the coming physician shortages by expanding enrollment. But we are nearing a critical deficit of residency training positions, and Congress needs to act now," he said.

For the third consecutive year, applicants and enrollees across most major racial and ethnic groups increased. A record number of black/African-American students (3,824) applied to medical school, up 5.1 percent over 2011. Black/African-American enrollees increased to 1,416 students, a 3 percent gain. Applications among Hispanic/Latino students rose by 7 percent. The number of Hispanic/Latino enrollees reached 1,731, representing 6 percent growth over 2011. Among American Indian applicants and enrollees, 39 percent of new medical students in an AAMC survey with pre-medical debt declined slightly to 36 percent, compared with 37 percent in 2011 and 2010. Although 39 percent of new medical students in an AAMC survey expressed concern about debt, Kirch said a career in medicine remains a "good investment," adding that incoming medical students will be prepared to meet the challenges of a changing health care system and increasingly diverse population.

"I'm in the privileged position of seeing the next generation, and they're ready for this. The increase in applicant numbers reflect that," he said. "If people really believed medicine was not a great career, these numbers would be going down, not up. They know it's one of the most rewarding, gratifying professions a person can pursue."
Innovations in Clinical Care

The Health Care Stage: Acting Out to Improve Health in Minnesota
—By Scott Harris, special to the Reporter

(Editors Note: Throughout 2012, the Reporter will feature a series of articles and interviews focused on clinical innovations at medical schools and teaching hospitals, profiling the physicians and researchers responsible for their development and success.)

In 2011, Carl A. Patow, M.D., M.P.H., M.B.A., began leading the EBAN Experience™, an equitable health collaborative at the AAMC member-institution Regions Hospital in St. Paul, Minn., and HealthPartners Institute for Medical Education. The goal of EBAN is to identify and understand the causes of health disparities in designated minority populations. According to Patow, executive director of education at HealthPartners, the program connects health professionals and community members in efforts to change systems relating to pediatric immunization, hospital readmissions, colorectal cancer screening, dental procedures, and pain control, among others.

One of EBAN’s unique features is its use of commissioned, culturally specific films as a teaching tool to improve understanding of health disparities. So far, changes resulting from EBAN have led to a 10 percent increase in colorectal cancer screenings among patients of color and a 36 percent increase in the number of dental patients on medical assistance who received fluoride treatments.

Reporter: What was the impetus for the equitable health collaborative, or EBAN? Did you find that culturally and clinically speaking, these minority populations have unique challenges?

Patow: Over the last 15 years, Minnesota has changed dramatically. There has been a large influx of Somalis, Latinos, and Hmong populations. We have become more diverse. A lot of these new populations tend to be underserved when it comes to health care.

We decided we wanted to address this. One of the unique aspects of our organization is that we are an insurer as well as a provider. So we’re able to more easily collect information on patients and ask them to identify themselves. When we collected the data, we noticed some differences among the various populations. For example, we did not have the same level of mammography across racial and ethnic groups. Sometimes when this happens, the issue is simply a lack of access to care or a language barrier. In other cases, though, it is a cultural issue. For example, in Somalia, there is no concept of preventive services. Somalis tend to go to the doctor only if they are very ill. Preventive care is a foreign concept, and that includes immunizations for kids.

What’s more, in Somalia, men would not even discuss a colonoscopy. It is simply unacceptable. So there were low colonoscopy rates, and we are looking to raise those rates.

There is a similar situation in the Latino population. We learned that many Latinos will visit a spiritual leader first before entering the health care system.

Reporter: How does EBAN work?

Patow: All in all, EBAN has nine teams, each one working on a different disparity. Our teams have built more links with the community to improve access. Better relationships with the community can help us make patients more comfortable with the health care system.

For example, one of the things we started with was a mock office visit, where patients went through the process of visiting the doctor. We asked them to change into a robe, but Somali patients said, “No, we can’t do that.” We learned that they do not put on clothes that they don’t know are clean. These are the kinds of barriers we often do not understand. We realized we had to bridge these cultural nuances.

Reporter: One of your community partners is a theater. Why did you choose to get involved with a theater and create a film?

Patow: For a long time, we have been very interested in using plays as a way of communicating, especially in terms of explaining complex health issues. We had four plays for EBAN written by authors from within the cultures we were trying to reach. Each of the stories is about families with health issues. The plays were acted out. They were also filmed by Twin Cities Public Television and turned into a documentary called Healthy Acts: Setting a New Course. We’ve actually been nominated for a regional Emmy.

Reporter: What kinds of resources were needed for EBAN?

Patow: We have a grant for $250,000, which covered part of the initiative, including the cost of the plays, the film, and the meetings we’ve held in the community. There was cost involved, but it has created lasting connections. If you think about the money we stand to save if we raise immunization rates and preventive services, we’ll get our money back many times over.

Reporter: EBAN is a yearlong initiative. Are there plans to continue?

Patow: In spring 2013, we’re launching an initiative for diabetes called EBAN 3D. It will target Latinos, African-Americans, and East Africans. We’ve already built the foundation in terms of the community connections, so now it is just a matter of building on what we already have done.

Reporter: What advice do you have for others who are attempting a similar project?

Patow: We had a long-standing commitment to the community at our academic medical center, so there was no resistance to this. We had great support from the medical group and the health plan in terms of data. We also had a leadership kickoff to get the project going. I think it’s important to have the leadership involved all along, to sustain what you learn and integrate it into the system. Otherwise, it’s just a project.

Better relationships with the community can help us make patients more comfortable with the health care system.”

—Carl A. Patow, M.D., M.P.H., M.B.A.
Training Students to Care for Those Who Serve

By Stephen G. Pelletier, special to the Reporter

During the year that Jamie Lombardo spent dispatching helicopters in Iraq in 2005, enemy mortar rounds hit her air base, 75 miles north of Baghdad, an average of four or five times a day. She was never injured, but many of her fellow veterans from that conflict and the one in Afghanistan returned home with physical injuries, psychological scars, or both.

Today, as a second-year student at the University of North Dakota School of Medicine & Health Sciences, Lombardo is on the front lines again—this time in a national effort to help veterans. North Dakota is participating in Joining Forces, a comprehensive national initiative launched by first lady Michelle Obama and Dr. Jill Biden, that combines a wide range of activity—including medical care—to support service members and their families.

The AAMC joined the initiative last January when it announced a commitment of more than 100 U.S. medical schools to mobilize their education, research, and clinical care missions to meet the health care needs of military service members, veterans, and their families.

Focusing the work

Since the AAMC’s involvement, participating medical schools are mobilizing academic medicine’s three mission areas of research, clinical care, and education to achieve the initiative’s goals and prepare future physicians to care for the military and their families. Earlier this month, in recognition of Veterans Day, the AAMC established Joining Forces Wellness Week, Nov. 12–16, to boost awareness about the health needs of veterans and their families and the role academic medicine plays in serving the military. The initiative featured a webinar series focused on military health issues, such as post-traumatic stress disorder (PTSD) and traumatic brain injury (TBI). Several webinars were followed with a patient simulation or standardized patient demonstration, including role-play conversations with veteran avatars.

Todd Gleeson, M.D., associate clerkship director and assistant professor at the Uniformed Services University of the Health Sciences F. Edward Hébert School of Medicine (USUHS), presented a webinar on military cultural competence. With an already intense focus on the military, USUHS has expertise in PTSD, TBI, and other illnesses that are common among service members.

“But what is lacking is more of an explicit cultural competency looking at veterans as a culture,” Gleeson said. “We really wanted to impress upon our students that our patients continue to exist as veterans after active duty and they need [to understand] the challenges our veterans have.”

To that end, USUHS is encouraging other medical schools to integrate military cultural competence into the curricula. With veterans comprising about 10 percent of the U.S. adult population, Gleeson pointed out all physicians should understand veterans’ health issues.

“The majority of those who leave our care are going to be taken care of by civilian physicians. Not every medical school trainee gets exposure to veterans or veterans’ care.” he said.

Even at USUHS, there is an increased focus on military cultural competence, Gleeson said. Beginning this year, USUHS students are interviewing veterans at a VA hospital and a veterans’ retirement home in Washington, D.C., to learn about their military experiences and health challenges. To help other schools develop competency curricula, USUHS provided two standardized patient cases—one of a veteran with PTSD and another of a family who is dealing with a deployment—as well as a primer on military medicine on the AAMC’s iCollaborative, an online collection of innovative education, delivery, and research resources.

At Michigan State University College of Human Medicine, the Joining Forces initiative sparked the college to recognize and understand the challenges that veterans and their families face, said Marsha Rappley, M.D., dean at Michigan. “We want our students to graduate understanding the people who serve [in the military]. The Joining Forces initiative led us to focus razor sharp on how we think about this.”

This fall, for example, Michigan State started offering Military 101, a course that helps medical students explore how military service might have an impact on the patients they can expect to treat.

Work under the Joining Forces umbrella also is helping to integrate veterans’ health into the curriculum at the University of Utah School of Medicine. Prior to becoming part of Joining Forces, Utah already focused its curriculum on TBI and PTSD. In part to better serve veterans, “we felt that in terms of opportunity as well as obligation, we needed to make sure we were preparing our students well to deal specifically with [TBI and PTSD],” said Wayne M. Samuelson, M.D., vice dean for education.

The school capitalized on its Joining Forces participation to do even more. “A lot of the students have done research in a variety of labs that have worked on prosthetics for veterans who have lost limbs in combat, so it wasn’t a big stretch to move beyond that to make sure we were giving students a foundation in dealing with the challenges that
By Stephen G. Pelletier, special to the Reporter

Training Students to Care for Those Who Serve

Center: Jamie Lombardo, now a second-year student at the University of North Dakota School of Medicine & Health Sciences, in Iraq in 2005.

Right: Chris Vaughns, M.D., and his wife, Joanne LaFleur, M.D., at the 2012 commencement ceremony at the Michigan State University College of Human Medicine. Vaughns earned the title of doctor and the rank of captain in the United States Army.

Photo: Michigan State University

are unique to our veterans coming back from the current conflicts,” Samuelson said.

Since Utah joined the initiative, students in a course called Brain and Behavior have spent even more time “looking at the behavioral aspects of PTSD and the challenges that someone faces after brain injury,” Samuelson said.

Reinforcing those early lessons, the emphasis on PTSD and related issues carries through a neurology rotation for third-year students and into several specialty tracks for fourth-year students. Utah also has been working to help students “learn more about the stresses and strains, psychologically and emotionally, that veterans’ families experience,” Samuelson said. “That has been coming into our curriculum mostly in our third-year psychiatry and neurology rotations. It’s something that we’re trying to expand as we continue to work with the Veterans Affairs hospital here.”

Timothy E. Albertson, M.D., Ph.D., M.P.H., chair of the Department of Internal Medicine at the University of California, Davis, School of Medicine (UC Davis), characterizes the Joining Forces initiative as “a comprehensive call to arms” that is “trying to get people in the academic medical arena to be cognizant of the special needs of the veteran population. What is unique about this population? What are their unique medical issues?”

Diving deep into those questions, several groups at UC Davis are researching PTSD and TBI. As part of its curriculum, the medical school collaborates with two regional VA hospitals, offering students residency programs as well as opportunities for research and clinical interactions that concentrate on veterans’ health. Among other initiatives, Albertson said, the university is looking for ways to work with state agencies to improve access to health care for homeless veterans.

At Michigan State, which has used problem-based learning for some 45 years, PTSD and TBI are the focus of related case studies that are part of the curriculum.

Key questions

Henry Klaholz, M.D., dean for clinical affairs at Tufts University School of Medicine, is leading an effort to make questions about military service a standard part of electronic health records (EHR). Klaholz argues that knowing a patient is a veteran could provide valuable insight as part of an initial medical history. “But it struck me,” he said, “that nowhere in the standard EHR does it ask, as part of the social history, ‘Have you ever been in the military?’” By advocating that such a query be standard for EHRs, Klaholz hopes to ensure that medical practitioners, including future doctors, do not overlook that potentially important information.

Part of the challenge of integrating veterans’ issues into medical school curricula is the age-old problem of trying to squeeze more information into educational programs that already are overflowing. Eric J. Murphy, Ph.D., an associate professor at North Dakota, said that as a partial solution the school plans to offer fourth-year students the option of completing a military competency certificate program, on their own time, to better understand the experience of people with a military background. He wants to organize focus groups of soldiers and military families who will share their perspectives with medical students. Murphy also would like to see more attention on veterans’ issues in the school’s training for nurses, occupational therapists, and physical therapists.

As she progresses through medical school, Lombardo agrees there is a strong need to better understand TBI and PTSD. At the same time, she would like to see a greater focus on how veterans reassemble into civilian life after serving in the military’s highly regimented world.

Yet another issue for veterans’ health is how to integrate it into continuing medical education (CME). A 2012 AAMC survey of medical schools participating in the Joining Forces initiative found that “new resources or refocused efforts” at the CME level are necessary to meet veterans’ health needs.

Support network

Rappley noted that studies regularly show social support networks are vital for the strength of veterans and military families. “In some ways, the Joining Forces initiative is a demonstration of the largest possible support network.”

“I am a pediatrician, and I remember that years ago, no one was interested in having a special group focusing on the problems of children in military families,” Rappley said. “It was very hard to drum up support for this. That’s no longer the case. We now understand that our young people, and all of our citizens, are influenced by what is happening in the military. Whether they are in active duty or were once active-duty, they are part of our families, they’re part of our social system, and they are certainly a part of our medical system.”

For more information about the Joining Forces initiative, please visit www.aamc.org/joiningforces.

Sarah Mann contributed to this article.
Research-Intensive Medical Schools Expand Focus to Build Primary Care Workforce

—By Kim Krisberg, special to the Reporter

During his emergency medicine clerkship, Michael Learned, M.D., kept trying to find out what happened to patients he treated the night before. It was not typical protocol for an emergency doctor—in fact, Learned said his colleagues gave him a bit of flak for it. But it was a telltale sign of his future in primary care.

“I don’t like drawing boxes around people’s problems,” said Learned, who recently completed the Primary Care Internal Medicine Residency Program at the University of Colorado School of Medicine and is now chief medical resident at a Denver hospital. “I like being able to help people with whatever they need.”

Learned said he was drawn to Colorado by the “commitment from subspecialists to teach us.” But the school’s commitment to research, he said, enhanced his education more than he expected.

“A lot of the faculty members who were teaching me how to be a primary care doctor also were doing research,” he said. “I’d say the [school] is definitely well-positioned to help transform primary care because it’s so research-driven.”

Learned is finishing his training at a time when physicians in many specialties will be in short supply. According to the AAMC, the nation will experience a primary care shortage of about 45,000 primary care physicians by 2020. The primary care shortage will come as up to 32 million newly insured Americans enter the health care system under the Affordable Care Act (ACA). Across the country, work is well under way to address physician shortages. Research-intensive medical schools are playing a big role, teaching students how to combine research and primary care principles to improve care for underserved communities and increase community engagement.

“Research is often the foundation driving this work [to improve care] for the underserved,” said Elisabeth Wilson, M.D., M.P.H., an associate clinical professor of family and community medicine at the University of California, San Francisco, (UCSF) School of Medicine. “It is a foundational skill for those going into primary care. If we can graduate more students who understand how to partner with community leaders and engage communities to achieve better health, they will be much more successful. That’s one of our biggest goals.”

**Expanding the primary care pipeline**

Earlier this year, the University of Maryland School of Medicine received a five-year, $877,000 grant from the U.S. Health Resources and Services Administration (HRSA) to expand primary care. In receiving the grant, E. Albert Reece, M.D., Ph.D., M.B.A., the university’s vice president for medical affairs, noted that “while we remain a top-tier research-intensive institution, we must recognize our responsibility to primary care to ensure access to health care, especially in underserved communities where health disparities may exist.”

The new primary care track will build on the school’s family medicine program, integrating internal medicine and pediatrics, said Richard Colgan, M.D., lead investigator on the HRSA grant and associate professor of
family and community medicine at Maryland. Specialized tracks already have been successful there. In 2007, the school began offering a family care track. In the program’s first group of graduates, nearly three out of four pursued primary care. About one-third of the 2011 entering class applied for the family care track. The primary care track, which will eventually absorb family care students, accepted its first class in October.

Mentorship will be central to the new primary care track, Colgan said. Through a partnership with the state’s Area Health Education Centers, students will observe primary care physicians working in underserved areas.

“We’re looking to build a pipeline and expose students early on. They’ll have a greater understanding of primary care and service to the underserved and will be more inclined toward it,” Colgan said. “With our primary care track, we’re looking to make the community our classroom.”

Colgan noted that “we are really fortunate because we have faculty who come here for purposes of being aligned with a powerhouse research institution, and we have some truly amazing faculty members who are doing incredible research.”

Rebecca Switzer, 26, who will graduate from Maryland’s family care track next year, said the continuity of the primary care disciplines attracted her to the field. “Some of my mentors had treated families for years, sometimes for generations. That was really cool,” she said. “And the excitement from [the school’s] researchers just adds to your education. They’re always working on something new.”

In the South, at Duke University School of Medicine, the Primary Care Leadership Track officially launched in 2011 after a two-year pilot phase. The program combines community service, experience, and community-engaged research, with a pointed goal of preparing physicians to work with and learn from communities to improve care delivery and produce better outcomes.

Barbara Sheline, M.D., M.P.H., director of the Primary Care Leadership Track and assistant dean for primary care at Duke, said that in 2011, there were 200 applicants for the track’s six slots. The program is attracting students interested in both primary care and research, Sheline said, adding, “I think that with ACA, more students are looking for opportunities [in primary care]. They’re out in the community, meeting agencies and organizations that work with underserved communities.”

Sheline noted that medical schools and teaching hospitals have an obligation to partner with communities and re-examine the types of doctors they are producing. “We want students who are interested in figuring out a primary care solution. They have the potential to be change agents, and that’s what we were looking for.”

Being at a research-intensive institution will be a “huge benefit” to primary care students, who are required to spend a year conducting community-engaged research, Sheline said. In doing such research, these students learn that to address community health problems, they need to understand where their community is coming from, learn about the community’s interests and barriers to better health, and know how to use such data to shape interventions and services. Fortunately, Duke is home to faculty who can help students understand the significance of community-engaged research in improving patient outcomes.

Engaging communities in primary care

Across the country at UCSF, interest is high for the Program in Medical Education for the Urban Underserved (PRIME-US), an effort aimed at producing leaders to care for urban underserved communities. In most years, up to one-third of the matriculating class has applied for a spot, according to Wilson, who also serves as the PRIME-US program director. While PRIME-US is not a dedicated primary care track, Wilson said a majority of participants enter primary care disciplines. And community-based participatory research is a big part of the experience for PRIME-US students.

For Monica Hahn, M.D., M.P.H., M.S., a PRIME-US alumna now in UCSF’s Family and Community Medicine Residency Program, primary care is “all about the prevention of medical problems before they become severe; it’s about promoting health instead of treating disease. To me, that was really pivotal.” She said primary care aligned perfectly with her passion for social justice and closing health inequity gaps.

“I feel very fortunate to have trained at [UCSF], where primary care is valued. Although it is a research-heavy institution, there is community-based research and research on primary care, health disparities, and policy,” Hahn said.

Karen Chacko, M.D., program director of the University of Colorado’s Primary Care Internal Medicine Residency Program, one of the very first federally funded primary care training programs, said part of the program’s mission is finding students who want to care for underserved and rural populations after graduation. She noted that being home to “such high-powered researchers” gives the program an advantage when attracting students. Many come with the impression that primary care means spending all of their time in the clinic, but career opportunities, including those in research, exist across the board. And while primary care residents are not required to conduct research, it is definitely an option.

“A PRIME student at the University of California, San Francisco, School of Medicine leads a tour of the campus. Photo: PRIME-US

“We’re looking to build a pipeline and expose students early on… so they’ll have a greater understanding of primary care and service to the underserved and will be more inclined toward it.”

—Richard Colgan, M.D.
Making Intelligence Multiply: The Building Blocks of Smarter Leadership

—By Scott Harris, special to the Reporter

Liz Wiseman is president of The Wiseman Group, a Silicon Valley leadership research and development firm.

She is the author of the best-selling Multipliers: How the Best Leaders Make Everyone Smarter. Based on research in leadership and collective intelligence, the book defines two types of leaders: multipliers and diminishers. Multipliers can make a positive and profitable impact on organizations by cultivating change and innovation. Diminishers, on the other hand, drain energy, kill ideas, and shrink talent and commitment.

During a session sponsored by the Group on Institutional Advancement at the 2012 AAMC Annual Meeting earlier this month, Wiseman examined the role of multipliers at medical schools and teaching hospitals.

Reporter: What are the key characteristics of a leader who employs a diminishing style? In other words, what are the warning signs someone can look for that indicate they are not a multiplier?

Wiseman: We found that, in many cases, diminishers manage based on what they know and what they see. They also tend to be tyrants—not in a yelling, chair-throwing sense, but in the sense that they create anxiety and stress for those around them.

They make fast decisions and tend to be good decision-makers. But they often make inner-circle decisions. They are often very inclusive on small stuff, but for the big decisions, they pull in very close. It’s hard to be an effective employee when you don’t see all the information.

Diminishers micromanage. They operate based on the belief that people aren’t going to figure it out without them. They love to have smart people around them, but they don’t use them very well. Diminishers use maybe half of the intelligence around them.

Reporter: In a nutshell, what is the most important step someone can take toward becoming a multiplier?

Wiseman: The simplest and most powerful shift is moving out of the mode of having all the answers and starting to ask the right questions. This answer mindset starts in kindergarten; we’re all trained to have the answer first. I imagine a medical student, resident, or physician would certainly feel that way.

Try an extreme question challenge. Try to lead a project only by asking questions. You realize that people know a lot more [when you ask questions] than you realize when you’re telling them what to do. And there is more ownership. If you take this challenge once, it really creates a shift.

Reporter: As you know, leaders at medical schools and teaching hospitals increasingly are being asked to do more with less. How do multipliers help accomplish this?

Wiseman: Multipliers get more out of other people. We interviewed a lot of people for this book, and we found that diminishers get less than half of people’s capabilities, while multipliers get 90 to 95 percent. Diminishers are paying $1 for a resource and getting back 48 cents in value. It’s a waste, not just financially; you can imagine what it does for morale.

The people we interviewed said working for a diminisher is exhausting and frustrating. Working for multipliers is also exhausting, but at the same time, it is exhilarating. The message in our book is that instead of pining for more resources that are not coming, look inside your organization. People want to come to work and work hard. But under a diminisher, they give up or burn out. There is a difference between doing more work and doing more challenging work, with the autonomy and space to solve problems.

I also don’t think it’s outrageous to see a connection between stress at work and disease. People tell me all the time about their physical symptoms from stress.

Reporter: How do the lessons of Multipliers apply specifically to physicians and their clinical teams?

Wiseman: As a physician, are you dispersing your knowledge? Do patients walk away from you feeling more intelligent and better able to make good decisions about their own health care?

A common complaint among the doctors I’ve spoken to is that patients don’t follow the course the doctor sets for them. What can physicians do to put more ownership on patients? They can educare people, not just treat them.

There’s a very strong hierarchy in medicine. Many people come out of medical training feeling like they have to order, dictate, prescribe, and tell. Multiplier doctors use their training to bring out knowledge in the people around them. This can free up the physician.

Many doctors say there is no room for this because health care is a matter of life and death. But that is a model based on extreme circumstances. The times when it is truly a life-or-death situation are rare. Yes, there are times to dictate and micromanage. But a large percentage of the time, a different leadership model is needed.

Reporter: What can medical students do to think like a multiplier from the outset? Can they train to be effective leaders during medical school?

Wiseman: The No. 1 characteristic of multipliers is intellectual curiosity. Multipliers tend to be smart, but they also tend to ask a lot of questions. They want to know what’s possible. They want to know more than just the known; they want to move into the unknown. They are sponges.

Learn to listen and learn deeply. Learn how to ask questions, not just diagnose. Drill down and learn how to diagnose organizational situations and team dynamics. Where are we suboptimizing? It’s the same skill as diagnosing a patient.

Liz Wiseman

Liz Wiseman is president of The Wiseman Group, a Silicon Valley leadership research and development firm.
The Kitchen as a Classroom: Medical Students Get a Culinary Education

—By Barbara A. Gabriel, special to the Reporter

Many medical conditions require that patients follow specific dietary guidelines. But in some cases, doctors are not quite sure how to counsel patients about healthy eating. And such topics are not common in traditional medical school curricula. At a number of clinics, patients receive pamphlets on what to eat and not to eat for different medical conditions. But translating that into everyday practice is not always straightforward for patients, said Esther Joo, a second-year student at Tulane University School of Medicine. “You tell a patient with diabetes to stay away from white flour and sugar. But he doesn’t know what it means to stay away from white flour in practice. And sugar is in everything.”

In a novel approach, Tulane and at least one other medical school have created programs to help future doctors and community members develop a deeper understanding of healthy eating.

Tulane joined forces with the prestigious culinary school Johnson and Wales University to create a “culinary medicine” program, one of the first of its kind in the country. Timothy S. Harlan, M.D., an assistant professor of clinical medicine at Tulane, developed the program two years ago at the recommendation of Tulane’s dean, Benjamin P. Sachs, M.B.B.S.

Picking up the phone and cold-calling Karl J. Guggenmos, dean of culinary education at Johnson and Wales, Harlan shared Sachs’ idea to build a “teaching kitchen” to allow medical students and the larger community to learn about nutrition through hands-on cooking exercises.

In a city renowned for sweet and fatty foods, Harlan saw the irony of holding healthy cooking classes. “New Orleans—indeed, all of Louisiana—is one of the most obese areas of the country,” he observed. “Certainly there is a challenge to doing this, given the food culture in southern Louisiana. But that makes this the perfect place to start this project.”

Tulane’s teaching kitchen

Tulane’s joint effort with Johnson and Wales is multi-faceted. In 2010, the schools signed a memorandum of understanding that laid out a variety of mutual goals, including establishing the teaching kitchen, a Tulane elective course in culinary medicine, internships at Tulane for Johnson and Wales students, and continuing medical education classes. The centerpiece of the program, the teaching kitchen, is still under construction, although classes already are taking place.

“We’re trying to use food and culinary skills as the touchstone for conversations about disease processes that occur as a result of lifestyle issues,” Harlan explained. Students and community members are encouraged to think about how what they put into their bodies affects their long-term health—and they are given the practical cooking skills to change their diet.

Community teaching-kitchen classes are taught by a Johnson and Wales graduate who is assisted by medical students. After a lecture on a nutritional topic such as proteins or fats, the class cooks recipes that reinforce the nutritional concepts. Afterwards, those in the class are invited to eat the fruits of their labors and discuss what they learned.

Joo noted the teaching kitchen gives her and fellow medical students the opportunity to engage community members. “It’s not an in-and-out, 20-minute thing, like most clinic visits,” Joo said. “We talk to people for two to three hours and get to know them. It’s more of an investment in the community because you are working so closely with people on something that is such a big part of their daily lives.”

Tulane’s elective course in culinary medicine follows the teaching kitchen’s lecture-cook-eat-discuss format. Taught by medical school faculty, assisted by Johnson and Wales interns, the course encourages medical students to draw on the connection between food and health. “At the end, the goal is to loop the lesson back to the basic biochemistry and physiology they are learning in other classes,” Harlan said. Students also discuss how they can use what they learn to counsel patients about healthy eating.

Joo added that her experience with patient education was severely inadequate before she became involved with the program. “My lack of success in that area is one of the reasons I’m so passionate about making sure this effort gets off the ground,” she said.

Taking the elective and volunteering in the teaching kitchen taught Joo to give her patients concrete examples of what it means to eat well, she added. “Now I can give them specific, step-by-step instructions so they can go to the grocery store and make a substantial change.”

Baylor CHEFs

After noticing her colleagues’ poor diets, Amy Cobb, a fourth-year student at Baylor College of Medicine, co-founded Cooking Healthy, Eating Fresh (CHEF), a six-month elective for second-year medical students. “I’ve never seen a group of people eat so many frozen dinners and fast food,” she said. “One of the things we wanted to do was give second-year medical students the tools they need to be able to maintain healthy habits during the hectic part of their clinical training.”

Like Tulane’s culinary medicine elective, CHEF consists of a lecture, a hands-on cooking exercise, and a discussion. “A lot of doctors tell their patients to eat healthy, but they have no practical advice to give. This should help physicians counsel better,” Cobb said.

Cobb herself maintains a healthy diet and tries to set an example for patients. “One luxury we have as medical students is more time to spend with patients to counsel them. I’ve made food and nutrition a topic of special interest. Especially with my diabetic patients, I get down to specifics and give them cooking tips.”

At Tulane, Harlan said patients are more likely to take advice from physicians like Cobb who walk the talk. “When physicians are healthy themselves—they eat healthy, exercise, and share with their patients that they do so—their patients are more likely to listen to them,” he said.
In Brief

AAMC Unveils Infographic
A new AAMC infographic illustrates the critical role the nation’s medical schools and teaching hospitals play in the health care system. The visual tool includes quick facts and statistics that underscore academic medicine’s role in educating and training tomorrow’s doctors, conducting pioneering research to discover new treatments and cures, and improving patient care. The illustration serves as a helpful resource to show how medical schools and teaching hospitals work together to achieve the three missions of education, patient care, and medical research. For information: www.aamc.org/download/307492/data/futureofhealthcareinfographic.pdf

Three New Medical Schools Receive Preliminary LCME Accreditation
The Liaison Committee on Medical Education recently gave preliminary accreditation to three new medical schools: Frank M. Netter MD School of Medicine at Quinnipiac University; University of California, Riverside, School of Medicine (UC Riverside); and Western Michigan University School of Medicine. The schools have been admitted as provisional members of the AAMC, bringing the total number of allopathic medical schools in the United States to 141. Netter and UC Riverside will admit their inaugural classes in fall 2013; Western Michigan’s first class will be in fall 2014. For information: www.lcme.org/newschoolprocess.htm

NIH Partners With HMOs to Conduct More Efficient Clinical Trials
The National Institutes of Health (NIH) will dedicate $11.3 million from the NIH Common Fund to support the first year of the Health Care Systems Research Collaboratory. NIH will partner with health maintenance organizations and other large integrated providers to conduct “large-scale and more cost-effective clinical research within the settings where patients are already receiving care.” The awards will help establish a coordinating center and fund seven clinical trial demonstration projects that address ways to prevent conditions such as hospital-acquired infections and colon cancer. For information: www.nih.gov/news/health/sep2012/nccam-25.htm

NSF Report Highlights Challenges for U.S. Research Institutions
A new report, “Diminishing Funding and Rising Expectations: Trends and Challenges for Public Research Universities,” released by the National Science Board of the National Science Foundation, expands on data included in the recent edition of “Science and Engineering Indicators” that showed substantial decline in per-student state appropriations at major U.S. public research universities. The report highlights the importance of research universities to the local and national economies and rising public expectations for these institutions. For information: http://nsf.gov/nsb/sei/companion2/index.jsp

AAMC Calendar: December 2012

1–4
Mid-Career Women Faculty Professional Development Seminar
Austin, Texas
Information: Chanel Rickscricks@aamc.org
202-828-0892

12
Grateful Patient Fundraising
Fort Worth, Texas
Information: Alexa Pealapeal@aamc.org
202-828-0467

5–7
8th Annual Summer Medical and Dental Education Program Grantees Meeting
San Diego
Information: Brian Jamesbjames@aamc.org
202-862-6103

6–7
Council on Teaching Hospitals and Health Systems (COTH) Administrative Fellows Program
Washington
Information: Shaina Posternocksposternock@aamc.org
202-828-0518

1–4
December Academic Medicine Examines New Care, Training Models
Two articles available online ahead of print in the December Academic Medicine examine implementation of new training models. One article analyzes a five-year, federal program that trains primary care residents at ambulatory care centers. The authors argue that this model could meet the nation’s health workforce needs because it focuses on much-needed service areas. The second article examines interprofessional teams and the challenges team members face in working against the traditional hierarchical nature of the health care system. For information: www.academicmedicine.org

Case Western Receives $20 Million Gift for Medical Education Building
Case Western Reserve University School of Medicine has received $20 million from the Mt. Sinai Health Care Foundation and the Cleveland Foundation to fund a new medical education and research building. Each organization contributed $10 million toward the project. The 160,000-square-foot building will house the Mt. Sinai Skills and Simulation Center, as well as technologically enhanced small-group learning rooms, modern anatomy labs, wired lecture halls, and independent study spaces. For information: http://casemed.case.edu/newsroom/news/9-24-12/