While there is disagreement over the seriousness of the national shortage of physicians, particularly those who are primary care providers, everyone agrees there is a problem. The U.S. Department of Health and Human Services issued a statement on June 19 indicating a shortage of 16,000 primary care physicians in underserved areas—especially in rural and poor areas. In early July, the Association of American Medical Colleges projected a shortage of 45,000 primary care physicians and 46,000 surgeons and medical specialists by 2020, with too few to care for the nation's aging population and the millions of other people who will acquire health care coverage under the Affordable Care Act. Many experts believe the real problem is an imbalance in the use of resources such as

- too many specialists and too few primary care physicians
- too many physicians in cities and affluent areas
- too few physicians in rural and underserved areas
- too many physicians doing routine procedures that could be done by advanced-practice nurses, physician assistants, and pharmacists

While there has been an increase in enrollment and in the number of medical schools in the last 10 years, the number of residencies to train graduates has increased only modestly due to a congressional cap on paying for these positions. In addition, an expected decrease in clinical training sites in community hospitals and clinics will affect allopathic and osteopathic medical schools.

Single GME Accreditation System Approved

In July 2020, a new accreditation system will be fully implemented—allowing allopathic and osteopathic medical school graduates to complete their residency and/or fellowship training in Accreditation Council for Graduate Medical Education-approved programs. The American Osteopathic Association (AOA) believes the new accrediting mechanism will benefit the public by providing a single standardized system to evaluate the effectiveness of graduate medical education (GME).

The AOA believes that the new GME accreditation system will recognize the unique principles and practices of osteopathic medicine and how they contribute to U.S. health care. A July 19 news release said delegates representing the 104,000 D.O.s and osteopathic medical students supported the AOA Board of Trustees in a decision to adopt the single accreditation system.

(Inside the AOA: Osteopathic Medicine and Your Health. AOA House of Delegates votes to support single GME accreditation system: July 19, 2014.)

Including the Soul Cell in Medical Care

Charles R. Perakis, D.O., used to ask new students at clinical family medicine rotation orientation what cell they would choose if they could be any cell in the human body. A popular choice was the neuron so they would be in control and be in the center of things. Others chose the ova or spermatozoa capable of creating life, and one identified the islets of Langerhans since she responded to sweetness.

When asked by his students about his choice, Dr. Perakis decided on the soul cells, responding that it was found in all the cells. His inspiration came from Leonardo da Vinci, who included the soul in a drawing, locating it behind the eye in the anterior ventricle, referring to the eye as the window to the soul. Dr. Perakis said medical education should pay more attention to the soul. He explained that the lives of many patients are complicated by poverty, abuse, hopelessness, and lack of meaning.

Dr. Perakis introduced soul sickness to the concept of diagnosis, which he claimed can be treated by just listening. He made a plea for healers to attend to the needs of the soul as well as the body, hoping this would result in students and their teachers having a dialog about the influence of the mind, body, and spirit. According to Dr. Perakis, what better way to provide insight into the human condition than to discuss the exact location of the soul?


National Organizations Consider Improved Paradigms for Medical Education

The shortcomings of medical education—including inefficiency, inflexibility, and a lack of learner centeredness—were recently discussed by Cleveland Clinic and Case Western Reserve University medical faculty members. Assessments by faculty members are highly variable and reflect interpersonal characteristics rather than problem-solving and critical-thinking skills. People are living longer, causing an increase in chronic disease, which fosters the need for more geriatricians and primary care providers.

New medical school graduates with debt levels exceeding $150,000 chose more remunerative specialties rather than primary care, exacerbating the shortage of physicians. As far back as 1910, the Flexner Report criticized didactic teaching and called for students to learn by doing with flexible curricula and the integration of formal learning with clinical experiences and research.

The Accreditation Council for Graduate Medical Education Milestone Project attempts to move from a time-based framework to one that is competency-based and independent of the time it takes to achieve defined standards.

In addition, the National Board of Medical Examiners and the Association of American Medical Colleges are collaborating to develop a method to track learning across the medical education continuum. There is an urgent need for reform in medical education to help solve the health care problems of the nation. This must include sound educational models that also create a larger health care workforce at lower cost. An educational model that creates a “flipped classroom” is recommended, which includes receiving new knowledge outside the classroom with instructors using classroom time to reinforce learning and respond to questions. Massive open online courses combine hybrid or blended-learning models with flipped classrooms that are student-centered and have the potential to deliver less expensive and enhanced learning experiences.

Endorsed by the MacArthur Foundation with a $2 million Badges for Lifelong Learning Competition, metadata is encoded onto badges with the recipient’s name, the organization that certifies or approves the badge or badge provider, information about what the badge holder had to do to get the badge, and evidence that the recipient met the criteria to earn it. Students can stitch together multiple badges to document their learning and mastery.

In medical education, this could separate learning principles of basic and clinical sciences, factual knowledge, and early application as well as complex problem-solving and clinical reasoning. This virtual-learning environment would be available to students every day, 24 hours each day, and help to build an interprofessional collaborative team-based model with enhanced communication. No longer will a limited number of medical schools or faculty members constrain the ability to educate medical students.

The Association of American Medical Colleges is piloting lesson plans for premedical clubs suggested for use with students in the fourth through eighth grades. The plans consist of eight sessions designed to achieve a series of outcomes outlined below:

LESSON 1: WELCOME
Outcomes
- The group will have established a club name.
- The group will have created its own oath.
- Students will have created name badges can be used for each lesson.
- Students will know the format of the club and what they will be learning about in the club.
- If time permits, students will create posters to promote the club to other students.

LESSON 2: SPECIALTIES
Outcomes
- Students will know there are different kinds of doctors.
- Students will be able to describe a few specialties in basic terms.

LESSON 3: WHERE DOCTORS WORK
Outcomes
- Students will be familiar with different environments in which doctors work.
- Students will be able to discuss what those medical environments are like.
- Students will imagine their own careers as doctors.

LESSON 4: GOOD DOCTORS AND GOOD PATIENTS
Outcomes
- Students will identify, and be able to discuss, the skills and qualities of good doctors.
- Students will be familiar with patient histories.
- Students will understand the importance of communication in the doctor-patient relationship.

LESSON 5: MEDICAL TALK
Outcomes
- Students will increase their medical vocabulary.
- Students will identify possible communication barriers that may exist between the doctor and the patient.
- Students will apply terms they learn from this lesson and create a skit demonstrating their knowledge and understanding.
- Students will learn that doctors need to have both medical knowledge and the ability to communicate their knowledge to patients in a way that patients and their families can understand.

LESSON 6: DOCTORS AS DETECTIVES
Outcomes
- Students will see how doctors diagnose patients using diagnostic tools and resources.
- Students will be aware of different methods and machines doctors in the United States use every day to diagnose patients.

LESSON 7: MEDICAL STUDENT VISIT
Outcomes
- Students will meet, ask questions of, and interact with real medical students who come from similar backgrounds (if possible).
- Students will be able to ask questions and have conversations with medical students.
- Students will participate in activities led by medical students.
- Students will learn more about preparing for, applying to, and attending medical school from the point of view of current students.

LESSON 8: MATCH DAY
Outcomes
- Students will learn about residency training.
- Students will simulate the excitement of Match Day.
- Students will celebrate the completion of the Premed Club.

(Pre-Med Club-Aspiring Doc-Students. Association of American Medical Colleges; 2014).
Survey Reveals Salaries and Debt of U.S. Residents

An online survey of more than 1,200 residents in 25 specialties, conducted between June 20 and July 7, 2014, showed salaries of U.S. residents averaged $55,300. The highest-paid residents were those in critical care ($65,000), radiology ($63,000), pulmonary medicine, and gastroenterology (both $60,000).

First-year resident salaries averaged $51,000 compared to $60,000 for those after the fifth year. Corrected for inflation, there has not been a change in the compensation for residents in 40 years. While female residents earn only four percent less than male residents, men earned $16,819 more than women after residency training.

Those in residencies in the Northwest had average salaries of $71,000 compared to $50,000 in the Southeast. While 25 percent of residents had no debt, 36 percent had debt of more than $200,000 after five years of residency. Since 1992, medical school debt has increased by 6.3 percent compared to a 2.5 percent increase in the Consumer Price Index. More than half of residents had debts greater than $100,000, with little difference between women and men.

The lowest debt was in Texas, believed to be because medical schools in that state had the lowest tuitions. The study also found that about two-thirds of first- and second-year residents spent over 60 hours per week in the hospital, compared to 50 percent of third-year residents and one third of fourth- and fifth-year residents. In addition, 82 percent of residents were satisfied with their learning experience.

(Kane L and Peckham C. Residents salary & debt report. Medscape: August 5, 2014).
Continuing Medical Education Credit Form/September-October 2014

One (1) hour of continuing medical education credit may be obtained by reading the Medical Education Digest and completing the following evaluation that is being used to assess the reader’s understanding of the content. Please circle the answers you believe to be correct for all four questions located on this two-sided form. To acquire CME credit, physicians must mail, fax, or deliver the form (also available online at http://medicine.nova.edu), including both the completed quiz and evaluation form by October 15, 2014 to: Office of Education, Planning, and Research, Nova Southeastern University College of Osteopathic Medicine, 3200 South University Drive, Fort Lauderdale, Florida 33328. Email: lspeiser@nova.edu; Fax: (954) 262-3536. Please complete and return the evaluation form attached on the reverse side by fax or email.

AOA or AMA No. ___ Print Full Name _______________________________________

The correct answers will be published in the next issue of the Medical Education Digest.

1. Many experts believe the real problem regarding the growing shortage of physicians is an imbalance in the use of resources such as:
   a. Too many specialists and too few primary care physicians
   b. Too many physicians in cities and affluent areas
   c. Too few physicians in rural and underserved areas
   d. All of the above

2. Criticism of didactic teaching and the recommendation that students learn by doing with flexible curricula and integrating formal learning with clinical experiences and research was first made by:
   a. Hippocrates
   b. Flexner
   c. Association of American Medical Colleges
   d. Institute of Medicine

3. When corrected for inflation, residency salaries in the last 40 years have increased by:
   a. 0 percent
   b. 5 percent
   c. 10 percent
   d. 15 percent

4. The best description of a flipped classroom is:
   a. A reconfigured classroom in which students surround the instructor and receive a lecture
   b. A concept where students receive new knowledge outside the classroom, with instructors using classroom time to reinforce learning and respond to questions
   c. A concept that allows the number of students in a class to increase by a substantial amount
   d. None of the above

Answers to the July/August 2014 CME questions: 1. (B) 2. (C) 3. (C) 4. (C)

Target Audience and Objectives

The target audience includes physicians who have faculty appointments at a medical school or who train residents and fellows in hospital-based environments. It also is for non-physician faculty members who have the responsibility for teaching medical students and others who seek education in the continuum of medical education (e.g., residency, continuing education). Also, since residents are typically responsible during their training to train medical students, they too are part of the audience to which the Medical Education Digest is directed.

• To provide an overview from the world literature of medical education knowledge, concepts, and skills of contemporary, new, and innovative ways to facilitate learning among medical students, residents, and practicing physicians
• To identify sources of information regarding the medical education process
• To create curiosity among those responsible for the medical education process to read in depth some of those articles that are summarized in the Medical Education Digest.
Evaluation Form
Medical Education Digest

In a continuing effort to fulfill your professional interests and to improve the educational quality of continuing education, please complete this form. Please darken bubble.

1) Your field / degree: ○ MD ○ DO/AOA # __________________

2) Reading this issue of Medical Education Digest has influenced the way that I will treat future patients.
   ○ Strongly Agree ○ Agree ○ Neither Agree Nor Disagree ○ Disagree ○ Strongly Disagree

3) The contents of this issue will be useful in my practice.
   ○ Strongly Agree ○ Agree ○ Neither Agree Nor Disagree ○ Disagree ○ Strongly Disagree

4) Was disclosure of commercial relationships made?
   ○ Yes ○ No

5) Were off-label products described?
   ○ Yes ○ No

6) Did you perceive any inappropriate commercial bias or influence?
   ○ Yes ○ No

7) What is the best way to contact you in reference to future articles?
   ○ Phone ○ Email ○ Correspondence ○ Other __________________________

If you desire credit, please complete the areas below:

I have read this issue, approved for 1 hour of AMA-PRA category 1 credit & AOA category 1-B credit.

Signature __________________________ Date ________________

PLEASE PRINT THE FOLLOWING:

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Accreditation Statements

ACCME
Nova Southeastern University Health Professions Division is accredited by the ACCME to provide medical education for physicians. This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education through Nova Southeastern University Health Professions Division. Nova Southeastern University Health Professions Division designates this educational activity for a maximum of one (1) hour towards the AMA Physician's Recognition Award Category 1 Credit(s)™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

AOA
Nova Southeastern University College of Osteopathic Medicine is an accredited Category 1 sponsor of the American Osteopathic Association. One (1) hour of continuing medical education credit in Category 1-B is being offered through the American Osteopathic Association for this program.

Grievance Policy
Complaints should be submitted in writing to the Department of Continuing Medical Education, Nova Southeastern University Health Professions Division, Terry Building, 3200 S. University Drive, Room 1459, Fort Lauderdale, FL 33328.