

**STATEMENT FOR THE RECORD**  
**September 9-10, 2013 Meeting**  
**of the**  
**Council on Graduate Medical Education**

The pathology community wishes to thank the Council for recognizing the need to "increase and broaden" GME funding and graduate 3,000 more physicians per year as called for by COGME's Twenty-First Report, *Improving Value in Graduate Medical Education*. We agree as well that increases in GME funding should be directed towards "high-priority specialties," but are extremely concerned that pathology is missing from this list.

**The Coming Shortage of Pathologists**

In 2010, there were slightly fewer than 18,000 pathologists in the United States, which represents 5.7 pathologists per 100,000 population. New peer-reviewed research indicates that this number could drop precipitously over the next twenty years to 3.7 per 100,000, resulting in a likely gap of 14% fewer pathologists than needed in 2020, a shortage that will only worsen by 2030 when it will rise to a 40% shortfall. (See <http://www.archivesofpathology.org/doi/pdf/10.5858/arpa.2013-0200-OA>.) Supporting the finding of a likely gap, AAMC's 2012 Physician Specialty Data Book reports the pathologist workforce in the United States is the second oldest among all medical disciplines. HRSA's 2008 data, while not as up-to-date as the *Archives of Pathology* study, also supports the more recent findings. The 2008 HRSA report (<http://bhpr.hrsa.gov/healthworkforce/reports/physwfissues.pdf>), which projected physician supply to 2020, showed the baseline full-time equivalent projected supply of pathologists to increase by only 3% from 2000 to 2020 compared to a baseline projected increase in demand for pathologists of 23%. The report states that "non-surgical specialties such as cardiology and pathology show demand growing significantly faster than supply."

**Why the Expected Shortage of Pathologists Matters**

This likely shortage challenges current expectations of patient and health system access to key elements of care, from basic laboratory monitoring/management of individual patients and patient populations across the continuum of care to key disease diagnosis and advanced genomic medicine, as pathologists are the ultimate infrastructure physicians. With the increasing complexity of laboratory testing, primary care providers need to rely ever more on pathologists to advise on optimal testing and appropriate follow-up. As we move to capitated coordinated care models, physicians expert in laboratory diagnosis (i.e. pathologists) will become an ever-more essential part of the healthcare team to optimize outcomes, by providing the right testing at the right time to keep patients out of the hospital, and the most effective testing to optimize treatments and minimize inpatient length of stay.

The diagnosis and management of cancer is disproportionately prevalent in an ageing population and expected to increase significantly in coming years. Cancer care involves extensive use of both anatomic and clinical pathology testing and services, including cancer diagnosis on biopsy and surgical specimens, fine needle aspiration of tumors, molecular and genomic testing of malignant neoplasms, pharmacogenomic testing to guide and monitor therapy, administration of special blood products, proper storage of biospecimens for future genomic testing, etc.

Pathologists direct laboratories that maintain quality systems to ensure the generation of high quality and timely laboratory test results and accurate transmission of laboratory data to the electronic health record (EHR). The skills required of pathologists lend to their serving as data

stewards and leading the integration of clinical data in coordinated care settings. Pathologists, who in many ways were the first providers to focus on the health of populations, are important to coordinated care through:

- Developing protocols for appropriate laboratory test ordering, resulting in reduced costs for unnecessary tests and better outcomes as patients are more likely to get the right test at the right time;
- Improving physician access to *actionable* laboratory data in the EHR;
- Assisting in laboratory monitoring of patients with chronic illness and facilitating treatment interventions at the earliest moment, resulting in better outcomes and lower costs; and
- Actively participating in laboratory screening of healthy populations, resulting in rapid detection of disease and prompt referral for treatment

Indeed, many of the quality measures for health care outcomes derive partially or entirely from clinical laboratory diagnostic testing. The clinical laboratory is the first to obtain the results of this testing and pathologists can serve as integrative coordinators of such health data. Clinical data management is a core competency of practicing pathologists. Pathologists are also interpreters of increasingly sophisticated laboratory results and serve as guides in shared clinical decision making with other providers. Pathologists can be key effectors in ensuring quality, safety, value and lower costs throughout the health system.

Using informatics, pathologists work with other providers in coordinated care systems to develop evidence-based guidelines for optimal use of laboratory tests to:

- Monitor the health status of patients with chronic disease;
- Detect illness in at-risk patients; and
- Facilitate initiation of treatment interventions

Increase in utilization of genomic / personalized medicine for cancer and many other conditions requires an available and appropriately-trained pathologist workforce. Pathologists not only ensure appropriate utilization of genomic diagnostics for optimal care, but also interpret complex genomic results in the context of individual clinical conditions.

As indicated above, the increasing use of health information technology and clinical informatics to support the requirements of universal and affordable care increases the demand for appropriately-trained physicians in all disciplines, most critically an available and appropriately-trained pathologist workforce. Certification in the new subspecialty of Clinical Informatics is a joint and equal function of the American Board of Pathology (ABP) and the American Board of Preventive Medicine (ABPM). Clinical informatics-trained pathologists and other specialists are needed to design and maintain increasingly sophisticated information systems to support clinical data collection and handling, the sharing of electronic health information among disparate health care professionals and provider organizations, and the secure maintenance of electronic health records. The clinical laboratory is one of the most data-rich and potentially powerful areas for care coordination.

### **Other Professionals Cannot Make Up for the Shortage of Pathologists**

Laboratory technologists, pathologist assistants, and Ph.D. laboratory scientists are critically important in the delivery of laboratory services in the health care system. As important as these professionals are, by virtue of their limited training and clinical experience, they cannot serve as "pathologist extenders" in the way that nurse practitioners and physician assistants serve as "physician extenders" in many direct patient care settings. Coincidentally, these groups are also

currently suffering critical shortages of their own. The clinical interpretation of laboratory tests and offering of clinical consults requires a complete medical assessment of the patient and requisite clinical training that only a pathologist can provide. Pathologists, as physicians, can provide the key diagnostic and patient management services for which they are trained.

### **Primary Care Is Essential But So Are Pathologists**

Given the accumulating data cited earlier and the lack of suitable pathologist alternatives, it is clear that the current number of pathology training positions is insufficient to meet the current and future demand for pathologists. Presently, only 450-500 new pathology residency graduates enter the workforce each year. Since 2009, there has been an overall 3% decrease in the number of pathology residents (AAMC 2012 Physician Specialty Data Book, Figure 17), complicated by the closure of six pathology residency programs over the same time period<sup>1</sup>. Many of these programs were closed in order to reallocate positions to primary care residency training programs. Not only must current pathology residency and fellowship positions not be eliminated, but to compensate for the expected bolus of pathologist retirements and to keep up with the growing demand for pathologist services these positions must be increased. **We urge COGME to designate pathology as a “high-priority specialty” worthy of special consideration in the GME funding paradigm.**

American Academy of Oral and Maxillofacial Pathology  
American Pathology Foundation  
American Society for Clinical Pathology  
American Society of Cytopathology  
American Society of Dermatopathology  
Association for Molecular Pathology  
Association of Pathology Chairs  
College of American Pathologists  
National Association of Medical Examiners  
United States & Canadian Academy of Pathology

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<sup>1</sup> Washington Hospital Center, Washington, DC; New York Medical College at St Vincent's Hospital and Medical Center, NY; Texas Tech University Medical Center, TX; Nassau University Medical Center, NY; Berkshire Medical Center, MA; and Conemaugh Valley Memorial Medical Center, PA