

CONTINUING BOARD CERTIFICATION

VISION
for the
FUTURE

**Continuing Board Certification:
Vision for the Future Commission**

FINAL REPORT

February 12, 2019

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Preamble

Physicians are initially board certified by one of the 24 Boards of the American Board of Medical Specialties (ABMS) after meeting high standards for professionalism, completing post-medical school accredited training in a clinical specialty, and completing an independently administered, high-stakes assessment of knowledge and clinical skills developed by the respective specialty board. When certified, physicians become diplomates of the specialty's certifying board (ABMS Board).

Until the late 1960s, board certification of a diplomate was a lifetime credential. However, there was growing recognition that the science and practice of medicine changes substantially over time, and that the pace of change was accelerating. The ABMS Boards came to believe that issuing lifetime certificates was deemed insufficient to provide assurance that physicians practicing in their chosen specialties remained current.

Accordingly, ABMS Boards began to issue time-limited certificates that required their diplomates to periodically recertify. Initially, recertification consisted of a periodic, high-stakes, single examination of a physician's medical knowledge and cognitive skills. Issuance of time-limited certification was not adopted by all ABMS Boards simultaneously, and in fact, the last lifetime certificate was issued in 2005.

In the late 1990s, the ABMS Boards began to recognize that recertification required a different approach. This awareness led to the development of continuing certification programs that combined learning, assessment, professionalism and practice improvement standards. ABMS termed these programs Maintenance of Certification (MOC).

Over time, diplomates raised concerns with MOC programs. Specifically, diplomates were concerned about the necessity of keeping certification current during their careers as well as the burden, cost and relevance of MOC programs with activities that were viewed as busywork with little value and unrelated to their everyday practice of medicine. Some diplomates were also concerned about the perceived lack of responsiveness and financial transparency of the ABMS Boards.

Further, some ABMS Boards' MOC programs had not adequately adapted to the degree of subspecialization in practice that was occurring, nor did MOC programs sufficiently integrate advances in education and assessment science or offer alternative methods for assessment that foster learning. The disaffection among many physicians led them to question the role of the ABMS Boards in the system of professional self-regulation.

The above factors, complicated by the evolution of the health care delivery system that created new expectations and challenges for practicing physicians, led to the creation of alternative boards; political activism with state legislatures; and demands from ABMS

diplomates to reconsider the foundations, principles and practices of continuing certification.

THE VISION INITIATIVE

Recognizing that an overhaul to the current continuing certification process was required, the ABMS decided to review both the framework and the purpose of continuing certification of physicians, and launched a process titled **Continuing Board Certification: Vision for the Future** (the Vision Initiative).

The Vision Initiative was designed to reimagine a system of continuing certification that had four functional components:

1. Become a meaningful, contemporary and relevant professional development activity for diplomates that ensures they remain up-to-date in their specialty.
2. Demonstrate the profession's commitment to professional self-regulation to both diplomates and the public.
3. Align with international and national standards for certification programs.
4. Provide a specialty-based credential that would be of value to diplomates and to multiple stakeholders, including patients, families, the public and health care institutions.

In early 2018, the Vision Initiative Planning Committee established the Continuing Board Certification: Vision for the Future Commission (Commission), an independent body of 27 individuals who represented diverse stakeholders, including practicing physicians, health care leadership, academic medicine, Continuing Medical Education (CME) professionals, group medical practices, state and national medical associations, ABMS Board executives, specialty societies, and health advocacy groups representing patients, families and the public at large.

The Commission was charged with reviewing continuing certification within the current context of the medical profession. The Commission was also asked to address key issues currently facing the ABMS Boards and diplomates as they fulfill their commitment to patients and their families as well as their professional colleagues. This consensus report presents the Commission's conclusions and recommendations to inform the future vision of continuing certification based on the information gathered and analyzed over the past year.

Due to its stated charge, the Commission's primary audience for these recommendations was the ABMS Board of Directors, but the recommendations were developed with the intent that they would be adopted, when applicable, by all ABMS Boards. The Commission emphasized that the successful implementation of its recommendations will require substantial, ongoing engagement with multiple stakeholders.

Purpose of Continuing Certification

The Commission understands the need to clearly articulate the purpose for continuing certification and to distinguish it from initial certification. Initial certification is, and should be, based primarily on a rigorous assessment. Continuing certification has a greater emphasis on physician learning and advancement and a demonstration of current competence.

A fundamental axiom is that a single point-in-time assessment early in a diplomate's career provides an insufficient basis for making a statement about the ongoing, career-long knowledge, skills, and abilities of a diplomate. Certification is not akin to a medical diploma that has an enduring dimension—it is more like a medical license that has a period of expiration. Just as states insist that a medical license be renewed, so must certification, which is a higher standard than state medical licensure. Initial certification can only assure the public that the diplomate met a standard at a given time. Participating in continuing certification demonstrates that a diplomate is pursuing a program of ongoing professionalism, advancing clinical practice and learning that uses objective, independent assessments based on a specialty-specific national standard.

Continuing certification requires a different set of expectations and requirements. Diplomates said that continuing certification should incorporate learning models that provide meaningful value and learning that they can apply to provide better care for their patients. Therefore, the emphasis on continuing certification must be focused on the availability of curated information that helps diplomates deliver improved clinical care. In the absence of a substantive learning benefit, traditional infrequent high-stakes assessment, no matter how psychometrically valid, is viewed to be inappropriate as the future direction for continuing certification.

At the same time, the Commission believes that a summative decision of whether diplomates demonstrate ongoing competence to practice their specialties is necessary for ABMS Boards to fulfill their responsibilities to the public. The decision should include aggregated data from formative assessments combined with other data related to professional standing, continuing professional development, and activities that advance practice to improve care. The Commission believes that formative and summative elements of continuing certification are both required and are not in conflict with each other.

The purpose statement and set of guiding principles created by the Commission to support the development of recommendations are based upon important differences in the purpose between initial certification and continuing certification. The Commission believes that continuing certification should have a focus on specialty-specific physician learning and the advancement of clinical practice. The Commission defines the purpose of continuing certification as follows:

The purpose of continuing certification is to serve diplomates, the public and the profession by providing a system that supports the ongoing commitment of diplomates to provide safe, high-quality, patient-centered care. Diplomates who meet specialty continuing certification standards reflect their commitment to professionalism, lifelong learning and improved care.

The Commission acknowledged responses from representatives of the public to the Commission's draft report noting that it is essential that diplomates demonstrate their fulfillment of their ongoing commitment to provide safe, high-quality, patient-centered care.

There are nine guiding principles that the Commission used for its recommendations for continuing certification. These guiding principles are summarized in Appendix 1 and reflect the Commission's best efforts to meet the multiple objectives of continuing certification programs. These include:

- Clarifying that initial certification and continuing certification have different purposes.
- Reinforcing that diplomates are committed to providing high-quality, patient-centered care.
- Supporting the continuous enhancement of clinical care.
- Extending continuing certification programs beyond the assessment of medical knowledge.
- Providing value to diplomates to ensure that the efforts and costs needed to maintain certification are commensurate with the benefits.
- Integrating practice data with assessment.
- Meeting the expectation that continuing certification programs result in ABMS Boards determining diplomates' continuing certification status.
- Evaluating and improving program effectiveness, with the intended outcome being that physicians improve knowledge and skills over time.

Value of Continuing Certification to Diplomates

Value for diplomates includes supporting their learning and helping them be better doctors in service to patients, while reducing the burden associated with fulfilling continuing certification requirements. To provide value to diplomates, continuing certification programs should also:

- Provide a platform for continuing professional development in their specialties. Keeping current has intrinsic professional value and is expected of physicians.

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- Enable those diplomates who demonstrate their continuing competence to continue to identify themselves as board certified physicians in their chosen specialties. Certification distinguishes their professional activities and clinical interests. There is intrinsic personal value associated with a diplomate’s professional identity as a specialist.
 - Provide a credential that enables diplomates to define the scope of their clinical practices and derive the economic benefits of such.

Value of Continuing Certification to the Public

The Commission also heard that the public wants and expects “someone” to make sure that physicians are staying current in their fields by assessing their competence on a periodic basis. Testimony from patient advocate representatives and other public representatives, along with results from current and previous ABMS consumer surveys, indicated that patients and the public at large value board certification when they selected physicians for themselves and family members. They assumed that certification requires ongoing learning and demonstration of current competence.

Conclusion

The Commission was committed to imagining continuing certification programs that provide value for diplomates, the profession and the public. The Commission believed that the programs should support diplomates in their goal to improve their care of patients. Continuing certification programs also need to substantiate the public’s belief that diplomates who meet the standards of continuing certification programs demonstrate that they are keeping current in their field.

There are some Commission recommendations that the ABMS and the ABMS Boards should consider implementing in the near term (one to two years), and there are some that should be considered within an intermediate timeframe (e.g. less than five years). Some recommendations are clearly aspirational and will require a time frame for implementation that is longer. The Commission expects that the ABMS and the ABMS Boards, in collaboration with professional organizations and other stakeholders, will prioritize these recommendations and develop the necessary strategies and infrastructure to implement them.

Further, the Commission recommends that the term “Maintenance of Certification” be abandoned. A new term that communicates the concept, intent and expectations of continuing certification programs should be adopted by the ABMS in order to reengage disaffected diplomates and assure the public and other stakeholders that the certificate has enduring meaning and value.

Recommendations

FOUNDATIONAL RECOMMENDATION

Continuing certification must integrate professionalism, assessment, lifelong learning and advancing practice to determine the continuing certification status of a diplomate.

Discussion

The Commission recommends that professionalism, assessment, lifelong learning and advancing practice must be part of continuing certification programs. The elements should not be siloed in a four-part framework, but rather should be multi-sourced and based on the cognitive and technical skills and competencies required for optimal patient care in each specialty. The ABMS should develop integrated standards that require meaningful diplomate engagement in activities that are relevant to current practice.

The Commission believes that the ABMS Boards need to engage with diplomates on an ongoing basis instead of every two, five or 10 years. The ABMS Boards should develop a diplomate engagement strategy and support the idea that diplomates are committed to learning and continually improving their practices, skills and competencies. The ABMS Boards should expect that diplomates would engage in some learning, assessment or advancing practice work annually.

SHORT-TERM AND INTERMEDIATE RECOMMENDATIONS

Assessment Recommendation

Continuing certification must change to incorporate longitudinal and other innovative formative assessment strategies that support learning, identify knowledge and skills gaps, and help diplomates stay current. The ABMS Boards must offer an alternative to burdensome highly-secure, point-in-time examinations of knowledge.

Discussion

Unlike initial certification, assessments for continuing certification should be formative to support physician learning and practice advancement. Assessments should be grounded in adult learning principles (e.g. frequent, spaced learning with timely feedback; repeated for reinforcement; gap analysis to aid focus) and support diplomates in their commitment to continuing professional development aimed at keeping current and improving patient care. Diplomate feedback needs to be of sufficient depth and specificity to be meaningful to diplomates. The Commission encourages the ABMS Boards to provide diplomates their performance data in comparison to their peers when appropriate.

The Commission recommends that the ABMS Boards must offer alternatives to burdensome highly secure, point-in-time examinations or assessments of knowledge, and they must no longer use a single point-in-time examination or a series of single point-in-time assessments as the sole method to determine certification status. The Commission recommends the ABMS Boards move quickly to formative assessment formats that are not characterized by high-stakes summative outcomes (pass/fail), specified timeframes for high-stakes assessment, or require burdensome testing formats (such as testing centers or remote proctoring) that are inconsistent with the desired goals for continuing certification – support learning; identify knowledge and skills gaps; and help diplomates stay current.

Data from the above assessments should be aggregated over time and combined with other data on professionalism and professional standing, continuing professional development, and activities that advance practice to ensure that diplomates meet specialty-specific standards. Diplomates performing unsatisfactorily on examinations or other assessments must be offered a remediation pathway before any certification decision is made.

The Commission recognizes, however, that there may be special circumstances where infrequent point-in-time examinations, as a component of a longitudinal assessment, should be available for diplomates under select, individual circumstances; preferences of diplomates with multiple certifications; or for those physicians seeking to regain certification after a prolonged gap or for substandard performance in formative continuing certification programs. The ABMS Boards should not be uniformly required to maintain infrequent high stakes point-in-time examinations in addition to alternative formative assessment methods.

Further, the Commission notes that procedural skills are a major component of practice for some specialties. The Commission understands that approaches for technical skill learning and assessment through simulation and other technologies are nascent and challenging. However, as technology advances, the ABMS Boards should work toward incorporating skills learning and assessment into continuing certification programs.

Finally, the Commission recommends that, by the end of 2019, all ABMS Boards that have not moved to these types of assessments, and working in collaboration with specialty societies, stakeholders and diplomates, submit a transition plan with milestones and timelines.

Diplomate Communication Recommendation

The ABMS Boards must regularly communicate with their diplomates about the standards for the specialty and encourage feedback about the program.

Discussion

The ABMS Boards are expected to effectively communicate with their diplomates about programs, standards and specialty certification. The Commission encourages the ABMS Boards to develop processes that regularly engage diplomates and seek their feedback on programs and standards. In addition, the ABMS Boards should communicate how feedback from diplomates is considered and how it influences changes in the programs. Communication should be open and bidirectional, promoting engagement between the Boards and the diplomates.

Recommendation on Consistent Processes and Requirements

The ABMS and the ABMS Boards must have consistent processes and requirements for continuing certification that are fair, equitable, transparent, effective and efficient.

Discussion

The Commission expects the ABMS Boards, through the ABMS, to work together to develop consistent processes and requirements in support of continuing certification programs. The ABMS Boards do not currently have consistent approaches and a consistent set of definitions. The ABMS Boards need to address these process requirements to create clarity and transparency in the programs.

The Commission recommends that the ABMS works with the ABMS Boards to implement a uniform cycle length at the end of which a decision about a diplomate's certification status is made. In addition, the ABMS Boards need to develop fair and transparent appeals processes and pathways to regain certification. The Commission does not view consistency as "sameness". Specialty-specific differences can and should exist. However, inconsistent processes that frustrate diplomates from different specialties when comparing their programs must be eliminated.

Recommendation for Diplomates who are Multi-Specialty

The ABMS Boards must enable multi-specialty and subspecialty diplomates to remain certified across multiple ABMS Boards without duplication of effort.

Discussion

The ABMS Boards must develop reciprocity in the programs between Boards when diplomates are dually- or triply-board certified to reduce stress and burden on the diplomates. The ABMS Boards must develop a process to allow diplomates who hold more than one certificate to have their activities and work count for the requirements across multiple Boards. In addition, the ABMS needs to work with the ABMS Boards to create consistent policy on maintaining a primary certificate when a diplomate practices in a subspecialty.

Recommendation on Independent Research

ABMS and the ABMS Boards must facilitate and encourage independent research to build on the existing evidence base about the value of continuing certification.

Discussion

The Commission acknowledges the critical need for research about the effects of continuing certification and for evaluation of these programs to understand what is effective and what is not. The ABMS and the ABMS Boards should collaborate with other organizations to facilitate the ability of independent researchers to examine the effectiveness and efficiency of continuing certification. This research would build on currently available research and seek to better understand the association of continuing certification with patient outcomes, and to understand what forms of assessment and professional development are most effective in helping diplomates keep current in their specialty. The Commission also suggests research on the impact of continuing certification on diplomate engagement, diplomate stress and burden, and the physician and specialist workforce.

Recommendation on Certification Status

The ABMS Boards must change a diplomate's certification status when continuing certification standards are not met.

Discussion

The Commission supports the ABMS Boards' key function in making summative decisions about the certification status of a diplomate and changing a diplomate's status when certification standards are not met. It is their role and obligation to both the profession and the public. Moving forward, the ABMS Boards are expected to use a portfolio of information and assessments when determining the continuing certification status of a diplomate. In doing so, the ABMS Boards must be unambiguous and transparent in their communication to diplomates about the types of information, assessments and performance standards that will be considered in this portfolio.

Data from different assessments could be aggregated over time or combined with other data to inform summative decisions. Such decisions should not, in almost all instances, be based on a single high-stakes examination. The exceptions may be where the ABMS

Boards are accommodating the preferences, remediation and/or re-entry of some of their diplomates and are maintaining a periodic, high-stakes assessment as an option.

The Commission also believes that the ABMS should create standardized certification designations other than certified or not, and that ABMS Boards should adopt and use these designations. For example, some diplomates may not be clinically active for a variety of reasons such as for research, administrative or executive careers. Other diplomates may require remediation for failing to meet a particular set of continuing certification requirements. Their certification status should be annotated in some manner.

The ABMS Boards must also provide clear instructions on due process rights, appeals processes, and pathways for resolving unmet standards and regaining certification.

Remediation Pathways Recommendation

The ABMS Boards must have clearly defined remediation pathways to enable diplomates to meet continuing certification standards in advance of and following any loss of certification.

Discussion

The ABMS Boards must have continuing certification processes in place that identify those diplomates at risk and work with those at-risk diplomates to help them meet the standards. The ABMS Boards are not expected to work with diplomates who decline to participate in continuing certification programs.

The ABMS Boards are expected to work with specialty societies and Continuing Medical Education/Continuing Professional Development (CPD) organizations to help diplomates who fail to meet assessment, learning or advancing practice standards. These organizations have activities to support remediation pathways and have the educational and learning programs to help diplomates address gaps in knowledge, skills and other competencies.

Recommendation on Encouraging All Diplomates to Participate

ABMS and the ABMS Boards must make publicly available the certification history of all diplomates, including their participation in the continuing certification process. The ABMS Boards must facilitate voluntary re-engagement into the continuing certification process for lifetime certificate holders and others not currently participating in the continuing certification process.

Discussion

When certification status changes are made, the ABMS Boards are expected to communicate new status information in a timely manner to diplomates and the public. The ABMS Boards must create a single set of definitions for how certification status is portrayed and communicated to users of the credential including the public (e.g. certified, participating in continuing certification, probation, revocation, not certified, etc.). The Commission recommends that the ABMS publicly displays the initial certification date and current continuing certification status and date of a diplomate.

The Commission deliberated on strategies that best served the interests of both the lifetime certificate holder and the public moving forward. Given the evidence presented to the Commission about the changes in knowledge and clinical skills over time; the focus on continuing professional development for continuing certification programs; the use of assessments “for learning” as opposed to high-stakes examinations; and existing licensure requirements for CME and other activities for practicing physicians, the Commission believes that all diplomates should be expected to participate in their respective ABMS Boards’ continuing certification programs. The Commission believes that the ABMS Boards are committed to creating a system that is fair, has value and is relevant to practice. Therefore, the ABMS Boards must facilitate voluntary engagement of lifetime certificate holders in continuing professional development through a supportive form of continuing certification.

Recommendation on Compliance with Standards

The ABMS Boards must comply with all ABMS certification and organizational standards, including financial stewardship and ensuring that diverse groups of practicing physicians and the public voice are represented.

Discussion

The Commission expects the ABMS Boards to comply with certification and organizational standards which include standards related to financial stewardship and operations. The expectation to comply with these community-created standards provides external stakeholders reassurance that the ABMS Boards will move forward as a community and not as a group of independent organizations. The Commission understands the new governance model of the ABMS Boards and supports the expectations inherent in this new model. The Commission also expects that the ABMS will provide oversight and accountability for the ABMS Boards' compliance with standards, policies and processes.

The Commission recommends that the leadership as well as the Boards of Directors/Trustees of the ABMS Boards include diverse representation from the population of diplomates of the Boards. Board leadership and governance should consider the representation of their diplomates' areas of practice and diplomates' demographics in their call for nominations processes. The Commission also believes that a supermajority of Board members must be clinically active, and exceptions can be considered for those diplomates who are not clinically active (e.g. professional and administrative roles that are important to the specialty and profession). The ABMS Boards are also encouraged to include at least one public member on their Boards of Directors/Trustees.

The Commission believes sound financial stewardship is a fundamental responsibility of the ABMS Boards and essential in maintaining the trust and goodwill of diplomates. The ABMS Boards need to be efficient in the conduct of their operations and fully transparent with their diplomates about financial matters.

Recommendation on Use of the Credential

ABMS must demonstrate and communicate that continuing certification has value, meaning and purpose in the health care environment.

- a. Hospitals, health systems, payers and other health care organizations can independently decide what factors are used in credentialing and privileging decisions.**
- b. ABMS must inform these organizations that continuing certification should not be the only criterion used in these decisions and these organizations should use a wide portfolio of criteria in these decisions.**
- c. ABMS must encourage hospitals, health systems, payers and other health care organizations to not deny credentialing or privileging to a physician solely on the basis of certification status.**

Discussion

The Commission recognizes that the certificate has meaning, value and purpose in the health care environment. Hospitals, payers, and credentialing and privileging organizations use certification as a marker of quality for diplomates. While this credential reflects the commitment of physicians to seek excellence in their field, the Commission encourages these organizations to use a wide portfolio of criteria to make credentialing and privileging decisions and not deny credentialing or privileging to a physician solely on the basis of not having certification.

The Commission acknowledges that the ABMS Boards cannot control how the certification credential is used by external stakeholders, and that these independent organizations decide how the credential is used. However, the ABMS must educate external stakeholders about appropriate use of the credential including the impact on physician workforce and employment.

ASPIRATIONAL RECOMMENDATIONS

Professionalism Recommendation

ABMS and the ABMS Boards must seek input from other stakeholder organizations to develop consistent approaches to evaluate professionalism and professional standing while ensuring due process for the diplomate when questions of professionalism arise.

Discussion

The Commission recommends that the ABMS Boards develop new, reliable and consistent approaches to evaluate professionalism and professional standing in collaboration with specialty societies, other professional organizations, and representatives of the public. Standards for professionalism and professional standing need to address more than just licensure status. Public members of the Commission strongly recommend that, in the future, the ABMS Boards implement assessments for professionalism and professional standing that include the consideration of multi-source feedback conducted on a regular basis to measure accountability for behavior. The Commission finds that certification represents a higher standard than licensure and expects that unprofessional behavior can lead to the loss of certification regardless of licensure status.

The Commission encourages the ABMS to develop a common approach and set of standards for how licensure status affects certification status. This includes a common consideration for licenses that have restrictions that are not due to unprofessional behavior such as when a diplomate is clinically inactive, acting in an administrative capacity, or changes his/her practice due to injury or disability. The ABMS Boards should have processes that consider the individual circumstances of a diplomate's licensure status so that the inappropriate loss of certification does not occur.

The Commission encourages the ABMS Boards to work with the Federation of State Medical Boards (FSMB) and the state medical boards to foster communication of timely information regarding changes in licensure status of a diplomate.

Advancing Practice Recommendation

ABMS and the ABMS Boards should collaborate with specialty societies, the CME/CPD community and other expert stakeholders to develop the infrastructure to support learning activities that produce data-driven advances in clinical practice. The ABMS Boards must ensure that their continuing certification programs recognize and document participation in a wide range of quality assessment activities in which diplomates already engage.

Discussion

The Commission recognized that the improvement in medical practice (Part IV) expectation for MOC was onerous to some diplomates and was a challenge to implement for many specialties. The Commission concluded that a system that promotes advancing practice should be based on three fundamental concepts: 1) physicians intrinsically want to provide the best patient care; 2) physicians find value in those activities that help them provide better care; and 3) contemporary health care is delivered by collaborative health professional teams in which physicians are actively engaged and often lead.

The Commission recognizes that the fundamental approach for the advancing practice recommendation is the identification of knowledge/practice gaps and the engagement in learning activities that improve clinical competency.

The advancing practice recommendation requires the collaborative involvement of multiple stakeholders. The ABMS Boards should set standards, document expectations and work with other organizations to build continuing certification activities around this process. The ABMS Boards should also be expected to collaborate with other leading organizations to create an infrastructure that reflects advancing practice activities that are already occurring in many practice environments. When appropriate, taking advantage of other organizations' quality improvement and reporting activities should be maximized to avoid additional burdens on diplomates.

The expectations for the CME/CPD community are to provide relevant, evidence-based education based on practice gaps and learner needs that positively impact the delivery of care. Diplomates are expected to participate in a learning activity and implement what is learned into practice. The goal is to positively influence an individual's clinical practice that can lead to better patient outcomes. The ABMS Boards should readily accept existing activities that diplomates are doing to advance their clinical practice and

to provide credit for performing low resource, high impact activities as part of their daily practice routine.

The Commission recognizes that this is one of the most challenging recommendations for the ABMS and the ABMS Boards to implement. To this end, the Commission recommends that a multi-stakeholder task force be formed to design a system for advancing practice that satisfies the value proposition outlined above. In addition, the ABMS Boards should develop and implement pilot projects for new ideas and approaches.

Recommendation on Collaboration and Data Sharing

The ABMS Boards must collaborate with professional and/or CME/CPD organizations to share data and information to guide and support diplomate engagement in continuing certification.

Discussion

The ABMS Boards should examine the aggregated results from assessments to identify knowledge, skills and other competency gaps. Through structured data sharing agreements, these results and trends should be shared with specialty societies, CME/CPD providers, quality improvement professionals and other health care organizations engaged in developing lifelong learning and advancing practice activities. The ABMS Boards should collaborate with these organizations to identify medical advances, contemporary clinical guidelines, patient safety data, and medical decision-making challenges to help prioritize specialty learning and improvement goals.

Through these structured data sharing agreements specialty societies and CME/CPD providers should share aggregated results and trends of educational and other activities with the ABMS Boards to inform future assessments, requirements and standards. These collaborations should serve to optimize diplomate education, learning and assessment and to strengthen and advance the specialties and subspecialties approach to supporting excellence in patient care.

These data sharing strategies will reduce diplomate reporting burden, reduce program costs over time, support robust program evaluation, and provide mechanisms for meaningful diplomate engagement in continuing certification programs. The ABMS Boards also need to create better mechanisms for diplomates to provide feedback on continuing certification programs and to incorporate the use of registry, health information exchanges and other practice data in their practice improvement work.

The Commission encourages the ABMS Boards and specialty and subspecialty organizations to meet annually to discuss continuing certification programs. The focus of these meetings is to share learning and assessment strategies that will enhance the continuing certification experience for diplomates. They may also serve as platforms where important, emerging or cross disciplinary health issues, such as emerging infectious diseases, opioid crisis, etc., could be addressed and incorporated into continuing certification programs.

The ABMS should develop strategies to engage and collaborate with state medical societies, state medical boards and the FSMB to provide necessary input into continuing certification programs, especially for professionalism, licensure issues, as well as legislative activity that may impact continuing certification programs.

Concluding Comments

The Commission believes that the ABMS and the ABMS Boards are at an inflection point in this journey, and in partnership with other professional organizations, the realization of programs to support diplomates through their career is within reach. In doing so, the future of continuing certification will support diplomates and assure the public that the profession is committed to self-regulation – the outcome of which will result in better doctors who serve the interests of their patients.

Appendices

APPENDIX 1. GUIDING PRINCIPLES

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APPENDIX 10. COMMISSION MEMBERS

Appendix 1. Guiding Principles

The Commission established the following guiding principles reflecting its desire to meet the multiple objectives of continuing certification programs.

1. Continuing certification programs are expected to have a different purpose than initial certification. Initial certification is a decision made at a single point in time early in a diplomate's career that the diplomate has met high standards for professionalism, accredited training, knowledge, and clinical skills. Continuing certification reflects a program throughout a diplomate's career that supports a diplomate's commitment to ongoing learning and improvement fulfilling his/her professional responsibility to provide high-quality, patient-centered care through meeting specialty and professionalism standards.
2. Continuing certification programs are expected to provide value to diplomates and support their commitment to professionalism, lifelong learning, and improved patient care.
3. Continuing certification programs are expected to ensure that the efforts and costs of maintaining certification is commensurate with the benefits.
4. Continuing certification programs are expected to support diplomates in continuously enhancing their clinical knowledge, skills, and abilities based on evolving clinical and scientific evidence.
5. Continuing certification programs are expected to extend beyond the assessment of medical knowledge.
6. Continuing certification programs are expected to integrate data, as appropriate, from within the diplomate's existing activities to streamline documentation, avoid duplication of effort, and maximize efficiency.
7. Continuing certification programs are expected to result in ABMS Boards determining diplomates' continuing certification status using multiple sources of data.
8. Continuing certification programs are expected to identify and, in collaboration with specialty societies and other professional organizations, assist those diplomates who need additional directed self-learning and guidance to meet specialty continuing certification standards.
9. Continuing certification programs are expected to evaluate program effectiveness to ensure that continuing certification programs contribute to diplomates maintaining their specialty skills and competence over time and to adjust continuing certification requirements as needed.

Appendix 2. Findings

The Commission also identified key findings related to continuing certification. The Commission's findings are defined as products of discovery through study. Each finding is rooted in the Commission's analysis of the oral and written testimony, existing data, and other resources including supplemental references in peer-reviewed literature.

The findings are organized into the five areas listed below.

- A. Purpose and Value of Continuing Certification
- B. Continuing Certification Programs
- C. Stakeholders in Continuing Certification
- D. Research and Evaluation of Continuing Certification
- E. ABMS Boards' Support of Diplomates

A. PURPOSE AND VALUE OF CONTINUING CERTIFICATION

Board Certification has evolved over time.

Initial certification is a credential received when a physician meets specialty-specific standards for professionalism; completes approved training; and demonstrates the acquisition of a high level of knowledge and clinical skills. Initial certification is a decision made at a single point-in-time early in a diplomate's career.

Continuing certification conveys that a diplomate is committed to an ongoing program of learning and improvement and is focused on maintaining a high level of knowledge, judgment and skills throughout her or his career. Continuing certification programs support a diplomate's commitment to ongoing learning and improvement throughout his or her career. In short, just as becoming a doctor is different than staying a doctor, becoming certified is different than staying certified.

Continuing certification should reflect the assessment of advances in medical knowledge, new technology, emerging trends in population health, changes in clinical skills requirements, and changes in health care delivery systems. Moreover, assessment approaches in continuing certification must integrate new understandings of learning and how cognitive science can be leveraged to improve physician-directed patient care.

The purpose of continuing certification was unclear to diplomates.

Diplomates from different specialties did not have a shared understanding of the purpose of continuing certification. Diplomates did not consistently understand continuing certification as currently constructed. They expressed the desire to have a system that helped them keep current in the specialty and provided them with a valuable credential. Diplomates were uninterested in participating in activities they perceived to be of low value (e.g. a handwashing module). Instead, they wanted to

participate in a program to help them stay current in medical advances and identify gaps in their knowledge and skills within the domains of their practices.

Continuing certification programs vary in relevance, perceived effectiveness and level of diplomate support. As currently structured, diplomates perceive limited value of continuing certification.

The Commission found that diplomates had a wide range of perceptions about the value of continuing certification. Diplomates from certain specialties found more value in continuing certification than others.

A national stakeholder survey designed by the Vision Initiative Planning Committee was conducted at the beginning of this process. In total, 36,392 people participated in the survey, including 34,616 physicians with responses representing all 24 ABMS Boards and all 50 states. When physicians were asked if they valued MOC, approximately one in 10 physicians (12%) said they valued the program, nearly half (46%) said they had mixed feelings about it, while 41% said they did not value the program. The results of this survey were previously shared and are available in Appendix 4.

Diplomate perceptions were heavily influenced by the personal relationship between a group of diplomates and their ABMS Board, as well as the persistence of an emphasis on high-stakes summative assessments. The ABMS Boards who have moved to more formative, learning-focused assessment models and away from the high-stakes, high security, summative examinations have diplomates who are increasingly more positive about continuing certification.

The Commission heard a consistent message that ABMS Boards who maintain a summative-only assessment focus will continue to alienate physicians and will further frustrate certified diplomates. The Commission received testimony that the adherence to a non-formative approach, including highly secured and/or high-stakes approaches, will cause physicians to seek alternatives to certification by ABMS Boards as well as legislative and legal remedies.

Diplomates valued the assessment models such as article-based assessment programs and longitudinal assessment programs, because these models helped physicians stay current in the field, learn advances in medicine, and identify gaps in knowledge. For those in journal article-based programs, having their Board collaborate with specialty societies and other professional organizations to curate the seminal articles for the year in their field resulted in a highly-valued continuing certification experience.

Those ABMS Boards that used longitudinal assessment programs provided diplomates with an easy to use, less burdensome, digital format to stay current. In addition, diplomates of ABMS Boards that have created seamless transfers of completion information for lifelong learning and practice improvement also have found some value in continuing certification.

B. CONTINUING CERTIFICATION PROGRAMS

Continuing certification assessment should be based on contemporary principles of adult learning and focused on professional development.

The Commission received extensive background information from ABMS Boards' representatives on the core principles that distinguish initial certification from continuing certification. As stated earlier, initial certification is a decision made at a single point-in-time early in a diplomate's career that the diplomate has met high standards for professionalism, accredited training, knowledge and clinical skills. Unlike initial certification, assessments for continuing certification should be primarily formative to support learning and improvement efforts. However, data from different assessments could be aggregated over time and/or combined with other data to inform summative decisions. Such decisions should not, in almost all instances, be based on a single high-stakes examination. The exceptions may be where Boards are accommodating the preferences, remediation and/or re-entry of some of their diplomates and maintaining a periodic, high-stakes assessment as an option.

Assessments should be grounded in adult learning principles (e.g. frequent, spaced learning; repeated assessment; gap analysis with focused education) that supports diplomates in their commitment to continuing professional development that is aimed at keeping current and improving patient care. These assessment strategies should help diplomates be better doctors and provide opportunities to demonstrate that their skills and abilities are current.

Medical knowledge is an important competency for diplomates, and the ABMS Boards have been successful in developing assessment tools to measure medical knowledge. Initial certification strategies are currently heavily weighted towards medical knowledge assessments. However, the Commission recognized the need for, and the challenge of, assessing other competencies such as clinical judgment and medical decision-making, communication, professionalism, systems-based practice, patient care and procedural skills for continuing certification. Collectively, the ABMS Boards need to address these additional competencies that are important for contemporary clinical practice.

Key content areas that should be a focus of ABMS Boards' evolving assessment strategies include, but are not limited to, learning and application of contemporary clinical guidelines; advances in medicine and initiatives to improve care; patient safety and improved diagnosis; assessment of procedural and surgical skills using simulation; and new assessment technologies that can be readily aligned with the daily routine of clinical practice in order to minimize physician burden.

Assessments should be truly formative and designed to both assess and promote learning. They should be designed to identify knowledge gaps and areas that advance the diplomate's commitment to clinical practice improvement. As part of the continuing

certification program, ABMS Boards should provide meaningful and timely feedback to diplomates on their assessments that support the selection of educational activities and learning objectives to address gaps in knowledge and skills. This feedback needs to be of sufficient depth and quality to be meaningful to the diplomate. The Commission encourages the Boards to provide diplomates their performance data in comparison to their peers when appropriate.

The Commission also received testimony that many physicians narrowly define the scope of their daily practice activities, and these diplomates have requested ABMS Boards develop assessments that are more tailored to their area of practice (such as offering modular components of an assessment). While the Commission understood the changing nature of clinical practice and viewed this request in a favorable light, they also recognized that diplomates should be expected to have core knowledge related to the specialty or subspecialty. This led the Commission to recommend that ABMS Boards be encouraged to identify what core knowledge, judgment and skills are needed to be a diplomate in the specialty or subspecialty, while also creating assessments that enable focused content in the diplomate's principal area of practice. Some ABMS Boards have already implemented longitudinal assessment and other innovative programs that contain modules or content options that provide opportunities for diplomates to be assessed in areas that more closely match their everyday practice.

Moving to the approach of longitudinal assessment and other innovative formats for continuing certification may reduce indirect costs of participation for diplomates.

During the testimony, the Commission learned about the innovative work in longitudinal assessment and other innovative formats that the ABMS Boards are implementing and refining. These assessment approaches apply adult learning principles and modern technology to diplomate testing to promote learning, retention and the application of knowledge to patient care situations. These approaches allowed Boards to construct and disseminate shorter assessments on a more frequent basis. This approach has the potential to reduce indirect costs of continuing certification, such as time away from practice and family and the expenses for review courses that help prepare diplomates for the infrequent high-stakes examinations.

One example of a successful longitudinal program was the American Board of Anesthesiology MOCA Minute program, which allows diplomates to participate in ongoing knowledge assessment using computer-based platforms. Due to the success of this program, which includes high ratings from diplomates in terms of value, more than half of the ABMS Boards were implementing, or planning to implement, pilot programs involving longitudinal assessment.

The Commission heard testimony about how new technology-based platforms created interactive and engaging approaches to assess practice relevant content within a specialty and subspecialty that significantly eases the burden for the diplomate and

creates diplomate specific dashboards outlining areas of performance strength and gaps in knowledge.

ABMS Boards do not consistently provide useful feedback to diplomates as part of continuing certification programs.

Feedback is a fundamental element of learning and improvement in any setting. The Commission received testimony that not all ABMS Boards provide meaningful feedback on assessment activities. Diplomates expressed frustration about not receiving useful information on missed examination items and requested that specific assessment feedback become a fundamental expectation of continuing certification.

Substantial objection exists to the every 10-year high-stakes examination as the sole assessment of clinical competency for diplomates.

Diplomates have expressed concerns about the relevancy and burden of the high-stakes, summative examination to maintain one's certification. They said that assessments need to evolve beyond the high-stakes examination and be formative in nature.

The ABMS Boards used infrequent high-stakes examinations as the foundation of initial certification and recertification programs. However, stakeholders have reported that this type of assessment may not sufficiently assess diplomates' acquisition and application of learning and knowledge in their specialties throughout their career and may not assure the public that a diplomate was up to date in the specialty during lengthy intervals between assessments. Diplomates cited that the content of the examination was not relevant, was not a reflection of the application of knowledge in the clinical environment, and was not current with advances in medicine. Diplomates routinely access medical knowledge on their computers and smartphones while providing patient care. Assessments that rely exclusively on knowledge recall are not aligned with how diplomates practice.

Lastly, the Commission received testimony on how many ABMS Boards are making considerable strides in evolving their continuing certification programs. The ABMS Boards are moving away from the periodic, high-stakes, highly secured examinations to article-based and longitudinal assessment programs that assess practice-relevant knowledge as well as diplomate learning of advances in medicine. Diplomates viewed these changes as positive, reflective of practice and helping to identify gaps in their knowledge base and promote learning. Some ABMS Boards are also allowing the use of external resources and materials when taking assessments.

Based upon the testimony and discussion by the Commission, it is recommended that the ABMS Boards no longer use a single point-in-time examination (or single point-in-time assessments) as the only measure to determine the continuing certification status of a diplomate. In addition, the Commission recommends ABMS Boards move to truly

formative assessment approaches that are not high-stakes nor highly-secured formats. The Commission heard some testimony that greater frequency of highly secured assessments was not sufficient to eliminate the high-stakes nature of periodic examinations. Diplomates did not consider more frequent, shorter assessments done in a highly secured or remote proctoring environment (e.g. ABIM's Knowledge Check-In) to be formative, but rather just more frequent high-stakes assessments in a different form.

The Commission further acknowledges, however, that there is still value in infrequent point-in-time examinations as a component of a longitudinal assessment or other innovative program for diplomates with special needs; as preferences of diplomates with multiple certifications; or for those physicians pursuing re-entry to certification after a prolonged gap or for substandard performance in formative continuing certification programs. However, ABMS Boards should not be uniformly required to maintain examinations of this type in addition to alternative assessment methods.

Professionalism and professional standing are inconsistently defined among the ABMS Boards.

The Commission heard testimony about how unprofessional behavior among physicians was a principal reason why physicians lost their licenses or received licensure sanctions. With loss of license and/or licensure sanctions, ABMS Boards would impose sanctions on a diplomate's certification status up to and including loss of certification. Different ABMS Boards had different policies and procedures, and a consistent definition of professionalism across the ABMS Boards was lacking. Public members of the Commission strongly recommended that the ABMS Boards needed a plan to implement assessments for professionalism and professional standing that includes the consideration of multi-source feedback that is conducted on a regular basis to measure accountability for behavior. The Commission finds that certification represents a higher standard than licensure and expects that unprofessional behavior can lead to the loss of certification regardless of licensure action.

The Commission recommends that the ABMS Boards develop new and reliable approaches to assessing professionalism and professional standing. They believe that standards for professionalism and professional standing need to address more than just licensure status.

The Commission encourages the ABMS to develop a common approach and set of standards for how licensure status affects certification status. This includes a common consideration for licenses that have restrictions that are not due to unprofessional behavior such as when a diplomate is clinically inactive, acting in an administrative capacity, or changes his/her practice due to injury or disability. The ABMS Boards should have processes that consider the individual circumstances of a diplomate's licensure status so that the inappropriate loss of certification does not occur.

The Commission encourages the ABMS Boards to work with the Federation of State Medical Boards and the state medical boards to foster communication of timely information regarding changes in licensure status of a diplomate.

Continuing Medical Education (CME) activities are self-directed educational programs that diplomates must participate in for continuing certification. They are variable in quality.

- a. Research has shown that physicians' medical knowledge and clinical performance attenuate over time.**
- b. Research has shown that individuals have limited ability to self-assess their gaps in knowledge and skills to identify their learning and improvement needs.**
- c. In combination with challenges in self-assessment, diplomate self-selected CME activities are insufficient to ensure diplomates that remain up-to-date in clinical practice.**

During the Commission deliberations, CME and Continuing Professional Development (CPD) were foci of extensive discussion. CPD activities represented a broad set of professional activities that may include chart reviews, registry participation, consultations with colleagues, and informal roles in community-based health initiatives. CME activities represented a subset of CPD activities that were more structured toward focused learning. CME can reflect a broad range of educational activities that maintain, develop or improve diplomates' knowledge, skills and judgment. Testimony reflected that the quality of CME activities can be highly variable. The Accreditation Council for Continuing Medical Education and their CME providers should be encouraged to assess CME activities, identifying high quality activities and addressing lower quality activities. ABMS Boards should make aggregate diplomate data available as a source of needs assessment for all CME/CPD providers to utilize in the development of activities that support the ongoing continuing certification expectations for diplomates.

Background presentations summarized studies that showed that, without guidance, physicians struggle with accurate self-assessment. Physicians were not good at accurately assessing their own weaknesses or gaps in knowledge and skills. A diplomate's perceived mastery or confidence in one's ability to diagnose, manage or treat was not positively correlated with actual performance and patient outcomes. In fact, diplomates who were highest at overestimating their performance had objectively lower actual performance. However, informed self-awareness with objective data helped diplomates improve their awareness of knowledge and skills gaps that led to better practice performance.

Additional evidence revealed that the medical knowledge and clinical skills of physicians tended to decline over time and was associated with aging. Importantly, high quality CME/CPD activities were found to help mitigate the effects of age on clinical performance.

Relying solely on self-selected CME was found to have limitations. Historically, diplomates have chosen the CME activities they complete. Due to the pressures and pace of medical practice, diplomates often choose CME activities based on convenience, efficiency, interest and location. For this reason, self-directed CME alone does not sufficiently meet the standards for continuing certification.

Practice improvement is an important part of continuing certification programs.

The Commission affirmed the role of practice improvement in the provision of safe, high-quality, patient-centered care and understood that practice improvement should be a central component of future continuing certification programs.

The Commission appreciated the practical and significant difficulty placed on diplomates for meeting practice improvement requirements. Diplomat perceptions were meaningfully influenced by their experiences with the improvement in medical practice MOC component. For those diplomates who fulfilled the improvement in medical practice component through practice-based activities or through examining practice data and making changes to support the improvement of care, the experience was meaningful and of value. However, diplomates did not find value in check box activities or activities not relevant to practice. Diplomates complained that requiring multiple PDSA (Plan-Do-Study-Act) cycles in a quality improvement activity or requiring improvement in an activity in order for the activity to count in the continuing certification program was onerous and artificial. In addition, diplomates complained that all quality improvement work required that the diplomates do all elements of the quality improvement project instead of recognizing that quality improvement is optimally a team-based activity.

The Commission received information about the ABMS Multi-Specialty Portfolio Program (Portfolio Program). The Portfolio Program was designed to provide institutions and organizations with clearly articulated expectations for meaningful practice improvement efforts that were aligned with the workplace environment and the needs of diplomates in promoting quality and safe patient care. The Portfolio Program engaged all types of health care organizations to support diplomate involvement in local practice improvement initiatives and recognized work diplomates were already doing to improve their practices. The ABMS Boards also accepted modules or other activities that incorporated patient/peer surveys, simulation, registry participation and case review as well as other improvement-focused activities.

The public expects that their physicians are licensed and are current in their medical knowledge, clinical skills and professional capabilities for their designated medical specialties.

- a. **Through initial and continuing certification, the ABMS Boards provide accurate and transparent information and guidance to the public that a physician has met specialty-specific professional standards.**

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- b. Continuing certification serves as one indicator that a physician demonstrates that he or she is keeping current in their specialty through engagement in ongoing assessments and learning.**
 - c. The public is assured that the ABMS Boards will make a consequential decision on certification status when specialty and professionalism standards are not met.**

The Commission received individual testimony, results from consumer surveys and focus group data that, in general, the public prefers physicians to be board certified. The public believes that certification is a marker of quality and physician performance, and they preferred physicians with this credential to care for their families. While members of the public may not fully understand the continuing certification process, they expect that physician performance is somehow monitored. Further, when physicians fail to provide safe, high-quality patient-centered care, the public expects that they should be sanctioned in some way.

Further, the public perceived that there was a program in place to assess whether a physician is staying current in the specialty. The public seeks reliable and easily accessible information to know that physicians are keeping up. Surveys and focus group data further confirmed that the public are not sympathetic to those physicians who do not want to participate in continuing certification or perceive that it is a burden to keep up in one's specialty. The public believed that this was an obligation of being a health care professional.

By making a diplomate's certification status publicly available, the ABMS Boards provide accurate and transparent information to the public that a diplomate has met specialty-specific professional standards. Continuing certification serves as one indicator that a diplomate demonstrates that he or she is keeping current in their specialty through engagement in ongoing assessments and learning. The public is also assured that the ABMS Boards will make a consequential decision on certification status when specialty and professionalism standards are not met.

C. STAKEHOLDERS IN CONTINUING CERTIFICATION

ABMS Boards' relationships and collaborations with specialty societies, state medical associations, other membership organizations, hospitals and health systems vary in support of continuing certification overall.

The Commission heard testimony on the extensive relationships among ABMS Boards, specialty societies, state medical associations, hospitals and health systems, and other professional and CME/CPD organizations. It is apparent that successful relationships are characterized by communication around the roles and responsibilities for each collaborator, the absence of which causes conflict and confusion for all concerned.

In the ideal example, ABMS Boards provide assessments, make certification decisions, and set the standards for certification. The Boards rely on specialty societies, CME/CPD providers and other specialty organizations to provide educational and learning activities. They also work with the hospitals and other health care settings to recognize practice improvement and other activities occurring in practice. Effective communication and collaboration may require the ABMS Boards to provide some educational activities as part of assessment activities, and, in parallel, specialty societies and CME/CPD providers should provide formative assessments as part of their educational activities. To ensure that continuing certification programs remain current, relevant and cost effective for diplomates, communication and collaboration among the ABMS Boards, specialty societies and CME/CPD providers should be strongly encouraged.

Hospitals, health systems, insurers and other health care organizations are allowed to decide what factors are used in credentialing and privileging decisions.

The Commission received testimony from health care organizations and from diplomates on how diplomates' continuing certification status was being used, in particular, as a marker of quality and competence to practice a specialty. The Commission heard compelling testimony from all stakeholders that loss of certification can lead to loss of employment or certain employment opportunities for diplomates, or lack of reimbursement from insurance carriers. This impact on employment and reimbursement has prompted diplomates to seek relief by going to state legislatures to pass legislation preventing the use of certification in credentialing and privileging decisions. It is not the intent of the ABMS and the ABMS Boards for continuing certification to be used as the only criterion for credentialing and privileging decisions. ABMS does not support the credential being used as the sole criterion to deny a diplomate an employment opportunity or loss of insurance reimbursement. Organizations should use a portfolio of criteria in these decisions.

The Commission received information on ABMS' interpretation and policy on how certification and continuing certification should be used in licensing, credentialing and privileging decisions. The ABMS Board of Directors has approved a statement about use of the credential and a position statement about the delineation of clinical privileges. Both the statement and the position statement are included in Appendix 5.

D. RESEARCH AND EVALUATION OF CONTINUING CERTIFICATION

Research and evaluation are required to answer important questions about the effectiveness, impact and operations of continuing certification.

- a. There are gaps in the research evidence that conclusively demonstrates that diplomate participation in continuing certification leads to better patient outcomes.**

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- b. There is an emerging body of evidence that supports the assertion that those diplomates who participate in continuing certification are more likely to stay current in their specialty's clinical practice, but this evidence requires further support.**
 - c. Continuing certification programs are inconsistently evaluated by ABMS Boards for program effectiveness and efficiency, and not all ABMS Boards engage in quality improvement activities.**

Through testimony and its deliberations, the Commission became aware of and more familiar with the types of research and evaluation efforts focusing on continuing certification. The Commission acknowledged that the ABMS Boards published research on continuing certification programs. The research was conducted with integrity and quality and was published in peer-reviewed journals. However, research gaps were identified as well. Moreover, there is an emerging body of evidence that supports the assertion that those diplomates who participate in continuing certification are more likely to stay current in their specialty's clinical practice.

During its deliberations, the Commission reviewed a sample of existing peer-reviewed studies regarding the association between participation in continuing certification and staying current in the specialty. The Commission acknowledged that research was important work for the Boards. However, as continuing certification programs look to have an impact on patient outcomes, a broader research agenda is needed. For example, there are gaps in the research evidence that conclusively demonstrates that diplomate participation in continuing certification leads to better patient outcomes across many specialties. The resources to support an expanded research agenda may exceed the research capabilities of individual ABMS Boards. The Commission noted that expanding the knowledge base through research activities conducted by researchers independent of the Boards would be useful.

The ABMS Boards had a mixed record when it came to evaluating the effectiveness of their own programs including understanding what assessment methods work best and why. The Boards did not uniformly pursue continuous quality improvement of their programs. An important aspect of such programs would be the review of the efficiency and financing of Board operations. Boards' finances were perceived as very opaque. Transparency about the efficiency of operations, the appropriateness of fees, and the stewardship of funds was essential to increasing diplomates' trust.

E. ABMS BOARDS' SUPPORT OF DIPLOMATES

Some diplomates expressed concern about how ABMS Boards disclose financial information about continuing certification programs, including sources and uses of funds.

The Commission heard strong concerns from diplomates about lack of transparency in the way specific ABMS Boards disclosed financial information and how much of the Boards' budgets were dedicated to programs. Some diplomates who testified expressed how they did not trust their Boards to appropriately manage resources. Specific issues include how some Boards have used diplomate fees in the past as well as how these Boards have transferred funds to associated foundations. They also questioned the judgment of the Boards' leadership compensation, locations of board meetings, and other expenses not viewed as justifiable for certification programs.

Some diplomates expressed concern that ABMS Boards vary in how they communicate about continuing certification programs.

From the earliest testimony provided, the Commission noted several concerns about communication among the ABMS Boards, their diplomates and related specialty organizations. Presenters cited the one-way nature of the communication from specific ABMS Boards to their diplomates and their specialty organizations. Communications that were touted as discussions or dialogues with stakeholders were instead perceived to be passive listening exercises as the Board talked to them. The testimony emphasized that even when communication efforts included a request for feedback or in-person discussions, the request appeared to be perfunctory with feedback often being ignored.

Conversely, some ABMS Boards have effective communication strategies with their diplomates and have evolved into building relationships with them. These Boards have multiple channels of engagement, and the Boards can show how their diplomates have an impact on programs. These Boards have also invested in building collaborative and collegial relationships with specialty societies, program directors, residents and other health care organizations.

ABMS Boards are inconsistent in defining the content and requirements as well as the policies and processes for their specialty and subspecialty continuing certification programs.

The Commission received testimony regarding diplomate discontent with continuing certification that was a result of inconsistent approaches to continuing certification programs. Diplomates from different specialties compared their programs with each other and expressed their frustration as to why some diplomates had access to some activities while others did not. All ABMS Boards have developed their programs based on the ABMS standards as well as for specialty-specific reasons; however, diplomates

and other stakeholders believed that ABMS Boards' adherence to these program standards were inconsistent.

For example, inconsistencies that caused confusion and frustration among diplomates were how the ABMS Boards differentially assessed knowledge, judgment and clinical skills. Some ABMS Boards have moved to longitudinal assessment programs while some Boards have maintained the high-stakes, periodic examination. Other Boards have moved to remote proctoring for assessments that are still considered high-stakes while other Boards are permitting the use of other forms of user authentication to meet security requirements. These types of inconsistencies in content and requirements have led to perceptions of inequity among diplomates.

The Commission received testimony that highlighted inconsistencies in policies and processes that, in turn, led to confusion among diplomates, users of the credential and other stakeholders. For example, the credentialing community, diplomates and hospitals and health systems found the variability in processes, including length of program cycle, procedures for re-entry into certification, use of alternative pathways, and expectations of maintaining a primary certificate when practicing in a subspecialty, to be arbitrary, unnecessarily confusing, and contributed to diplomate dissatisfaction.

While continuing certification program content and requirements may need to differ for specialty-specific reasons and for purposes of innovation, the Commission heard from these stakeholders that policies and processes should be standardized. Standardizing the policies and processes should alleviate some diplomate concerns about perceived inequities.

Continuing certification programs do not adequately address the concerns of diplomates who are certified by multiple ABMS Boards and/or hold multiple certificates.

The Commission learned that the ABMS Boards did not have a consistent approach to supporting diplomates who hold more than one certificate. Some Boards required maintenance of the primary certificate when practicing in the subspecialty while other Boards did not. Some Boards have reciprocity for activities completed so that these activities can satisfy the requirements of two different Boards for those dually-boarded diplomates. Diplomates were seeking acknowledgement and some relief from multiple requirements when holding multiple certificates.

Appendix 3. Supplemental References

PURPOSE AND VALUE OF CONTINUING CERTIFICATION

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CONTINUING CERTIFICATION PROGRAMS

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Appendix 4. Stakeholder Survey Summary

The logo features the word "VISION" in a large, white, sans-serif font, with "for the" in a smaller, italicized font below it, and "FUTURE" in a large, white, sans-serif font at the bottom. The text is centered on a dark blue rectangular background.

STAKEHOLDER BELIEFS ABOUT THE FUTURE OF CONTINUING CERTIFICATION Survey Findings

To inform decisions about the future of the American Board of Medical Specialties (ABMS) Member Boards' Maintenance of Certification (MOC) programs, the Continuing Board Certification: Vision for the Future (Vision Initiative) Commission conducted an online survey to elicit feedback from three key stakeholder groups: physicians, non-physician providers and other stakeholders involved in the delivery of health care, and the general public. The survey provided an open forum for input.

SURVEY DESIGN - CONVENIENCE SAMPLE

The survey questions were developed by the Vision Initiative Planning Committee, which included representatives from ABMS, the Accreditation Council for Continuing Medical Education, Accreditation Council for Graduate Medical Education, Coalition for Physician Accountability, Council of Medical Specialty Societies, and Council on Medical Education of the American Medical Association, as well as public members. The survey included a combination of closed- and open-ended questions.

The survey was implemented using Survey Monkey, a popular online platform. Participants were invited to take the survey through a variety of means, which resulted in a convenience sample. The survey invitation was widely distributed to individuals and organizations who shared it with their staff and members. The organizations that helped promote the survey included the Council on Medical Specialty Societies, Specialty Society Chief Executive Officer Coalition, and the American Association of Medical Society Executives, individual associations and state medical societies. The Vision Initiative Commission appreciates the support of all the organizations who distributed the survey invitation.

In total, 36,392 people participated in the survey, including 34,616 physicians, 1,373 non-physician providers and stakeholders involved in the delivery of health care, and 403 members of the general public. The physician survey included responses from all 24 ABMS Member Boards and all 50 states.

Important Note: While the survey includes more than 36,000 responses from across the three audiences, it used a convenience sample and is likely to reflect selection bias. However, the results are important for the Commission to consider and are consistent with previous feedback received by ABMS and its Member Boards.

SURVEY FINDINGS

Physician Findings

When asked if they value MOC, one in 10 physicians (12%) said they value the program, nearly half (46%) said they have mixed feelings about it, while 41 percent said they do not value the program.

The survey asked physicians about their concerns regarding the MOC program. Participants were allowed to choose up to four options from a set list. The most frequently cited response was “costs” (58%). “Burdensome” was next highest (52%), followed by “does not accurately measure my ability as a clinician” (48%). “Does not help me improve my practice in a meaningful way” (43%) was the fourth most popular response.

Physicians were also asked to select which activities from a set list should be considered by the Vision Initiative Commission for continuing certification. The most popular responses were “continuing medical education” (84%) and “self-assessment questions delivered at regular intervals” (52%). Less popular choices were “open-book exam” (34%) and “assessment of the quality and safety of care provided” (24%), among the other choices.

Of the physician respondents, 96 percent are Board Certified. Additionally, 69 percent of respondents noted they are currently enrolled in a primary specialty MOC program, and 33 percent are currently enrolled in a subspecialty MOC program. Sixteen percent are lifetime certification holders. These categories are not mutually exclusive. Finally, six percent are not enrolled in an MOC program or are a lifetime certificate holder.

In summary, approximately half of physician respondents see MOC as too costly, burdensome, and not a true reflection of their abilities as clinicians. Some physicians want continuing certification to focus on practice-relevant continuing medical education (CME) opportunities, self-assessment, open-book exams, and quality of care assessments.

Other Healthcare Stakeholders Findings

When asked how familiar they are with the requirements that physicians must fulfill to maintain their Board Certification, 39 percent of stakeholders said they were “very familiar,” 46 percent said they were “somewhat familiar,” nine percent said “somewhat unfamiliar,” and five percent said they were “not at all familiar” with the requirements.

When asked if they consider Board Certification when selecting a physician, more than half of the stakeholder respondents (57%) said they always consider it, more than a quarter (27%) said they sometimes consider it, and 15 percent said they never consider it. Next, when asked if Board Certified physicians provide higher-quality care than non-Board Certified physicians, nearly six in 10 respondents (59%) believe they do; one in five (22%) didn't know. One in five (19%) said Board Certified physicians don't provide higher-quality care.

Consumer Findings

When asked if they consider Board Certification when selecting a physician, more than half of the general public respondents (56%) said they always consider it, more than a quarter (28%) said they sometimes consider it, and 16 percent said they never consider it. Next, when asked if Board Certified physicians provide higher-quality care than

non-Board Certified physicians, more than eight in 10 respondents (84%) believe they do; the remaining 16 percent said Board Certified physicians don't provide higher-quality care.

General public respondents were also asked about the activities physicians should be required to do to stay up to date and maintain clinical skills and expertise. The participants were given a set list and asked to select all the options that may apply. More than half of general public respondents selected the following options: "participate in a minimum number of CME hours each year" (85%), "periodic exercises to measure, and if necessary, improve quality of care" (74%), "periodically assess performance to compare with other doctors in the specialty" (64%), "have communication and clinical skills rated via patient surveys" (59%), "have performance rated via colleague surveys" (56%), and "take exam at regular intervals assessing clinical knowledge" (56%). The only activity not selected by more than half of the respondents was "self-assessment activities to determine how well he or she is doing" (48%). Two percent said, "none of the above."

CONCLUSIONS

While these data must be interpreted with caution, the results provide important insights for the Vision Initiative Commission. The Commission will consider these results as part of their overall continuing certification testimony.

Physicians

While a small percentage of physicians value MOC, a larger portion has either mixed views or do not value MOC. They currently see MOC as too costly and burdensome, not an accurate depiction of their abilities or relevant to their practice, and duplicative. However, physicians see some value in MOC for its CME opportunities and tracking, focus on lifelong learning, keeping physicians up to date, and self-assessment programs. Respondents want continuing certification to include a focus on relevant CME opportunities, self-assessment delivered at regular intervals, open-book testing, and an assessment of the quality and safety of the care provided.

Other Health Care Providers and Consumers

Board Certification is a recognized credential and plays an important role in selecting a physician. In fact, both groups strongly indicated that Board Certification is important when selecting a physician and they believe Board Certified physicians provide a higher quality of care.

ABOUT THE VISION INITIATIVE COMMISSION

As a collaborative process, the Commission brings together multiple partners to vision a system of continuing Board Certification that is meaningful, relevant and of value, while remaining responsive to the patients, hospitals, and others who expect that physicians are maintaining their knowledge and skills to provide quality specialty care.

The Commission framework began with a comprehensive assessment of the current continuing Board Certification system. The Commission holds hearings, provides information publicly, and tests and seeks feedback on concepts and ideas during the process. The Commission's final recommendations will be submitted to ABMS and its Member Boards for consideration and implementation in February 2019.

Appendix 5. ABMS Position Statement and Statement on the Use of the Credential



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ABMS Position Statement on the Delineation of Clinical Privileges

PURPOSE

The clear delineation of clinical privileges of medical staff members in health care organizations is intended to improve the quality of care by identifying professional capabilities of physicians and other practitioners, thus providing additional assurance that individual practitioners are competent to fulfill the delivery of care for which they are responsible.

POSITION STATEMENT

Medical specialty certification and subspecialty certification by a Member Board of the American Board of Medical Specialties (ABMS) is a voluntary process in which a physician first must meet nationally-established education, training and external assessment milestones to gain medical specialty certification, and then commit to a structured, rigorous program of lifelong learning in order to maintain certification. Medical specialty certification and subspecialty certification provides public assurance of the Board Certified medical specialist's commitment to the development and maintenance of expertise in the specialty.

Granting and delineating the scope of clinical privileges are institutional responsibilities, vested in the medical staff and the governing body of the healthcare organization. Delineation of clinical privileges seeks to assure that individual physicians are qualified to provide the care for which they are responsible by identifying the physician's education, training, and practice experience. In granting and delineating the scope of clinical privileges, the health organization medical staff and governing body consider each physician's training, experience, demonstrated performance, and other criteria relevant to the organization's clinical, operational and professional expectations.

ABMS supports consideration of a physician's education, training, practice experience, performance and other criteria, including specialty and subspecialty certification, in granting and delineating the physician's clinical privileges. ABMS also believes that neither specialty certification nor subspecialty certification should be the sole determinant in granting and delineating the scope of a physician's clinical privileges.



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ABMS STATEMENT ON THE USE OF CERTIFICATION

ABMS Member Board Certification signifies that a physician or medical specialist has demonstrated the knowledge, skill, clinical judgment and professionalism that are essential for the safe and effective practice of his or her medical or surgical specialty.

Continuing certification by an ABMS Member Board signifies that its physicians and medical specialists can objectively demonstrate that they are continuing to meet the standards in their specialties throughout their careers and are committed to improving patient care.

For these reasons, ABMS Member Board Certification is trusted by patients and physicians and widely used by medical groups, hospitals, health systems, health plans and employers as an indicator of physician quality.

ABMS and its Member Boards believe that physicians should be eligible for a medical license without specialty board certification or continuing certification. However, licensing boards should also be free to use specialty board certification and continuing certification as indicators of current competence.

Information about ABMS Member Board Certification and continuing certification should be available, along with other relevant information or other current validation of training, knowledge, skills, and professionalism, without legal constraint, for consideration by medical groups, hospitals, health systems, health plans and employers in privileging and credentialing activities and decisions.

Appendix 6. Glossary

ABMS/ACGME Competencies

The Six Core Competencies, adopted by the American Board of Medical Specialties (ABMS) and Accreditation Council for Graduate Medical Education (ACGME) in 1999, are recognized as integral to quality patient care and are, as follows:

Practice-based Learning and Improvement: Continuously improving patient care through constant self-evaluation and lifelong learning.

Patient Care and Procedural Skills: Providing compassionate, appropriate and effective patient care.

Systems-based Practice: Being able to call on other system resources to provide optimal health care.

Medical Knowledge: Demonstrating medical knowledge and its application to patient care.

Interpersonal and Communication Skills: Facilitating effective information exchange and collaboration with patients, their families and health professionals.

Professionalism: Carrying out responsibilities safely and ethically.

Source: Price DW, Resnick S. The American Board of Medical Specialties Certification System. In: Stephens KG (ed). Guide to Medical Education in the Teaching Hospital (5th Edition). Irwin, PA, Association for Hospital Medical Education, 2016.

ABMS Portfolio Program

The Multi-Specialty Portfolio Program (Portfolio Program™), a service provided through the American Board of Medical Specialties, works with all types of health care organizations to recognize and support physician involvement in local quality/performance/practice improvement initiatives and awards diplomates Improvement in Medical Practice credit for continuing certification for work diplomates are already doing to improve their practices and the care of their patients.

Modified from: ABMS website (accessed July 2018)

Competence

Defined as the array of abilities across multiple domains or aspects of physician performance in a certain context. Statements about competence require descriptive qualifiers to define the relevant abilities, context, and stage of training. Competence is multi-dimensional and dynamic. It changes with time, experience and setting.

Source: Frank et al Medical Teacher 2010; 32: 638–645.

Continuing Medical Education (CME)

CME is one of many types of continuing professional development (CPD) activities available to physicians. CME activities serve to maintain, develop, or increase the knowledge, skills, and professional performance and relationships a physician uses to

provide services for patients, the public or the profession. These activities represent that body of knowledge and skills generally recognized and accepted by the profession as within the basic medical sciences, the discipline of clinical medicine, and the provision of health care to the public.

Modified from: AMA/ACCME Glossary (April 2017)

Continuing Professional Development (CPD) or Continuing Physician Professional Development (CPPD)

CPD includes all activities that doctors undertake, formally and informally, including but not limited to CME, in order to maintain, update, develop and enhance their knowledge, skills and attitudes in response to the needs of their patients.

Modified from: AMA/ACCME Glossary (April 2017)

Diplomate Portfolio

A portfolio is the compilation of a diplomate's practice-based learning activities and assessment data over a period of time. Many portfolios are active databases that allow a diplomate to define and track one's scope of practice and to gather and track process and patient outcomes data. A portfolio may support continuing certification by providing multiple data points on professionalism, lifelong learning and self-assessment activities, assessments and quality improvement plans.

Modified from: Norcini, John (May 2018). Revalidation and Recertification slide presentation.

Expertise

The mastery of the knowledge, skills and clinical judgment gained through the course of clinical interactions, reflection, deliberative practice, and the systematic identification and improvement of performance to enhance clinical practice.

Modified from: Multiple sources in the education literature.

Formative Assessment

Assessment of a physician with the primary purpose of providing feedback for learning and improvement and for reinforcement of skills and behaviors that meet established criteria and standards without passing a judgment in the form of a permanently recorded score.

Modified from: Accreditation Council for Graduate Medical Education Glossary of Terms (May 2018)

Health Care Organization Credentialing

The process of obtaining, verifying and assessing the qualifications of a practitioner to provide care or services in or for a health care organization and health plans.

Modified from: 2018 Joint Commission Glossary

Health Care Organization Privileging

The process whereby the specific scope and content of patient care services (that is, clinical privileges) are authorized for a health care practitioner by a health care organization based on evaluation of the individual's credentials and performance.

Source: 2018 Joint Commission Glossary

Initial Certification

A program established by the ABMS Member Boards that includes recognition of professionalism, completion of a rigorous graduate medical education training program, in addition to passing a rigorous assessment, which covers medical knowledge, clinical knowledge and diagnostic skills, created and administered by an ABMS Member Board.

Modified from: ABMS Guide to Medical Specialties © 2018

Longitudinal Assessment

Longitudinal assessment applies the principles of adult learning (repetition and relevance) and modern technology to physician and medical specialist testing in order to promote learning, retention and transfer of information to patient care situations.

Modified from: ABMS website (assessed July 2018)

Medical Professionalism

Medical professionalism is a belief system on how best to organize and deliver health care, which calls on group members to jointly declare (“profess”) what the public and individual patients can expect regarding shared competency standards and ethical values, and to implement trustworthy means to ensure that all medical professionals live up to these promises.

Source: Short form definition adopted by the ABMS Board of Directors, January 2012

Patient-Centered Care/Patient Outcomes

The goal of patient-centered care is not limited to the treatment of disease, but it is guided by the health, context, desire and outcomes of patients and populations. It is based on an authentic patient-provider partnership required for shared-decision making, by accounting for complex factors and allowing for the appropriate distribution of resources.

Modified from: Skochelak SW, Hawkins RE, Lawson LE, Starr SR, Borkan JM, Gonzalo JD, Health Systems Science. Philadelphia, PA., Elsevier, 2017.

Process Measures

Process measures generally refer to assessments of clinical care delivery activities carried out by health care professionals and health systems in their provision of health care services.

Modified from: Skochelak SW, Hawkins RE, Lawson LE, Starr SR, Borkan JM, Gonzalo JD, Health Systems Science. Philadelphia, PA., Elsevier, 2017.

Professional Self-regulation

Through an implicit social contract, society grants privileges, resources and substantial autonomy to physicians to determine educational standards, assess, self-regulate and ensure the competence of members of the medical profession.[i] In return, it is expected that the special knowledge and skills acquired by medical specialists (often through substantial societal investment in their educational process) will be used for the public good.*

*The principle of self-regulation works in tandem with state-based licensing processes. Self-regulation extends the Member Boards the privilege to determine standards for designation as a medical specialist. Licensure requires that an independent licensing body makes the final determination that a physician is competent to engage in the unsupervised [general and undifferentiated] practice of medicine within a given jurisdiction.

Modified from: Price DW, Resnick S. The American Board of Medical Specialties Certification System. In: Stephens KG (ed). Guide to Medical Education in the Teaching Hospital (5th Edition). Irwin, PA, Association for Hospital Medical Education, 2016.

Original reference: Cruess RL, Cruess SR. Teaching medicine as a profession in the service of healing, Acad Med 1997;72:941-952. In: 2010 ABIM Foundation Forum, Principles of the Social Compact for Medical Education and Training, Leslie Tucker and Daniel Wolfson, ABIM Foundation

Licensure language reference modified from: Caldwell K, Chaudhry H, Johnson, D. Medical Licensing and Credentialing. In: Stephens KG (ed). Guide to Medical Education in the Teaching Hospital (5th Edition). Irwin, PA, Association for Hospital Medical Education, 2016.

Proficiency

A level of skill acquisition at which a physician uses judgment that is molded by previous real-world experiences, pattern recognition, and decisional heuristics that leads to the formulation of a set of prioritized diagnoses that leads to the formulation of a plan.

Modified from: Dreyfus, Stuart E.; Dreyfus, Hubert L. (February 1980). A Five-Stage Model of the Mental Activities Involved in Directed Skill Acquisition.

Program Evaluation

Systematic and ongoing collection and analysis of information related to the design, implementation, and effects of a continuing certification program for the purpose of monitoring and improving of the program.

Modified from: Accreditation Council for Graduate Medical Education Glossary of Terms (May 2018)

Specialty

A “Medical Specialty” is a defined area of medical practice which connotes special knowledge and ability resulting from specialized effort and training in the specialty field.

Source: Newly-approved Amended and Restated Corporate Bylaws of the American Board of Medical Specialties (June 2018)

Subspecialty

A “Medical Subspecialty” is an identifiable component of a specialty to which a practicing physician or medical specialist may devote a significant proportion of time. Practice in the subspecialty follows special educational experience in addition to that required for general certification. Two different specialty fields may include two or more similar subspecialty areas. In these cases, the identified subspecialty area might use the same title and even equivalent educational standards.

Source: Newly-approved Amended and Restated Corporate Bylaws of the American Board of Medical Specialties (June 2018)

Summative Assessment

Assessment of learning with the primary purpose of establishing whether performance measured at a single defined point in time meets established performance standards, permanently recorded in the form of a score.

Modified from: Accreditation Council for Graduate Medical Education Glossary of Terms (May 2018)

Appendix 7. Summary of Testimony (July 2018)

VISION
for the
FUTURE

CONTINUING BOARD CERTIFICATION: VISION for the FUTURE COMMISSION

Summary of Testimony

July 2018

The Continuing Board Certification: Vision for the Future Commission (Commission) is charged with reviewing and understanding continuing certification programs within the current context of the profession of medicine. Commission members are involved in health care leadership and/or clinical practice in health systems, academic medicine, group medical practices, state associations, health advocate organizations, professional organizations and the public. The Commission has held two in-person meetings, one on March 19 - 21, 2018, in Washington, DC and the other on May 30 - June 1, 2018, in Denver, Colorado. While each of these meetings included closed sessions for Commission Members, a majority of the time was dedicated to hosting open sessions for public testimony. Agendas for the open sessions in March and May are available.

Over the course of the two meetings, speakers provided over 21 hours of public testimony in open sessions. Testimony was sought to provide opportunities for stakeholders in the system of continuing certification to discuss their perspectives on the system as well as their thoughts on innovations and possible changes with Commission members. In addition to their oral presentations, stakeholders were also asked to provide written statements for the Commission's records.

At the March meeting, representatives of several ABMS Member Boards discussed their continuing certification programs. Leadership of the Council of Medical Specialty Societies (CMSS) and some of its member organizations as well as assessment experts and psychometricians also provided formal comments. During additional open sessions, leadership from state medical associations, the Association of American Medical Colleges (AAMC), the National Board of Medical Examiners (NBME), consumer and health care quality advocate groups, continuing medical education (CME) providers, and practicing physicians in various specialties provided their perspectives. Question-and-answer sessions followed each set of presentations.

At its May meeting, the Commission continued to hear from key stakeholders. Leadership from additional ABMS Member Boards began the open session. This session was followed by a session on the relationships between the Member Boards and their respective specialty societies, comments from the ABMS Board of Directors leadership, and presentations on international models of physician certification. On the following day, additional state medical associations and practicing physicians, including a physician representative of the National Board of Physicians and Surgeons, provided their thoughts. These sessions were followed by a presentation by American Osteopathic Association (AOA) leadership, a panel of ABMS Portfolio Program Sponsors, and comments from hospital and health system administrators along with medical staff credentialers.

Following is a summary of the public testimony provided to the Commission. Each of the noted stakeholder groups was asked to address the value of certification and to highlight best practices and/or key concerns from their perspective. The testimony sought to provide a common foundation for all Commission members.

ABMS MEMBER BOARDS

The Commission heard from a variety of Member Boards representing large numbers of diplomates and specialties to much smaller Boards with fewer diplomates. The Boards represented hospital-based specialties, primary care specialties, medical specialties, and surgical specialties. Each of the Boards presenting to the Commission (Anesthesiology, Dermatology, Family Medicine, Internal Medicine, Medical Genetics and Genomics, Orthopaedic Surgery, Otolaryngology — Head and Neck Surgery, Pathology, Pediatrics, Psychiatry and Neurology, Surgery, and Urology) reviewed the goals for continuing certification along with program components and recent and planned innovations. Representatives from the Boards answered questions on Board philosophies and approaches to their continuing certification programs and discussed the movement toward support for a lifelong learning framework that incorporates more practice relevant, up-to-date knowledge and practice guidelines in their programs.

To provide additional background in the principles of assessment, psychometricians from four of the Boards (Anesthesiology, Family Medicine, Internal Medicine, and Pediatrics) shared the psychometric methods that are part of their programs, provided several scenarios based on existing data, and answered questions regarding the costs of these approaches and potential alternatives.

Summary of ABMS Member Board Testimony:

Testimony and related discussion at both meetings highlighted the following components of current continuing certification approaches:

- Board requirements for professionalism and professional standing, lifelong learning and self-assessment, assessment of knowledge and clinical skills, and improvement in medical practice as components of continuing certification programs
- Types, frequency, sources, and costs of lifelong learning activities used and self-assessment activities accepted
- Lengths of time-limited certification cycles and related timeline notifications, issues, and grace periods
- Diplomate engagement strategies from initial certification through continuing certification such as personalized dashboards, surveys, focus groups, and diplomate-specific staff representatives (e.g. concierge services)
- Format, frequency, scoring, and cost of continuing certification examinations
- Collaborations with the Accreditation Council for Continuing Medical Education (ACCME) regarding identifying appropriate CME activities and streamlining CME reporting
- Innovations such as individual Board approaches to longitudinal assessment programs including article-based assessments and quarterly knowledge assessments using mobile and computer-based platforms
- Assessments using remote proctoring
- Case and surgical log reviews
- Innovations and program components involving patient-reported outcomes and registries,
- Methods of soliciting diplomate feedback and engaging diplomates in program adjustments

- Challenges regarding balancing innovation and flexibility when moving beyond assessing broad medical knowledge within a specialty toward assessments that are relevant and customized to diplomates' practices
- Different approaches regarding decisions on the continuing certification of diplomates and remediation for sub-standard performance on assessments or program components

SPECIALTY SOCIETIES

In March, the Council of Medical Specialty Societies executive leadership and leadership from five other specialty societies (American Academy of Family Physicians, American Academy of Pediatrics, American College of Rheumatology, American College of Surgeons, and American Geriatrics Society) provided their perspectives on continuing certification, value of the credential, best practices, and their role in the system. Societies highlighted their educational programs, lifelong learning and self-assessment activities, registries, and collaborations with their respective Boards. Some also discussed frustrations with their respective Boards about lack of responsiveness, perceived rigidity, and challenges with diplomate frustrations.

In May, representatives from the Boards and their respective specialty societies presented as dyads or triads on behalf of the specialty (American Board of Obstetrics and Gynecology/American College of Obstetrics and Gynecology, American Board of Physical Medicine and Rehabilitation/American Academy of Physical Medicine and Rehabilitation, and American Board of Psychiatry and Neurology/American Psychiatric Association/American Academy of Neurology) addressing the historical and evolving nature of their distinctive relationships and how these relationships have been influenced by the implementation and acceptance of continuing certification programs.

Summary of Specialty Society Testimony:

The following perspectives emerged from this testimony and related discussion at both meetings:

- Specialty societies value and are committed to the goals of lifelong learning and relevant continuing certification. They seek to be a valued partner in the system.
- While some specialty societies and their respective specialty boards have experienced frustrations from time to time, ongoing, collaborative engagement between specialty societies and the Boards benefits diplomates, the state of specialty practice, and patients.
- The collaborative approach creates tension within some specialties because innovations and practice relevant activities can blur the traditional separation between education and assessment, and can complicate membership advocacy and business plan development.
- Within some specialties, this tension is managed through effective Board and societies communication and regularly-developed collaborative agendas and projects.

PERSPECTIVES OF THE PUBLIC

The perspectives of the public voice in medicine were an important discussion for the Commission. Speakers serving in current and former leadership roles of the AARP, The Leapfrog Group, Consumer Reports and other organizations bringing the public voice to the profession of medicine provided testimony. The testimony underscored the importance the public places on easy access to accurate physician-level information. However, access to this information is not sufficient, because the public seeks guidance from a trusted source concerning physicians' knowledge, experience,

and skills to feel confident about one's choice of a physician. The testimony also emphasized the widely-held public perspective that the medical profession is obligated to provide and be accountable for the information that it provides to the public. From this perspective, public reporting must go beyond providing accurate information to those choosing a physician, it must remain part of a comprehensive approach to quality and quality improvement.

Commission members asked about the public's awareness of ABMS Board Certification. The presenters all acknowledged that there are varying levels of public awareness about certification with many individuals being only slightly aware. They noted that even when awareness appeared high, an adequate understanding of certification requirements and processes (as well as the education requirements and processes) for physicians was lacking. Some of this lack of awareness and understanding is due to the predominance of low health literacy skills among consumers. In addition, there is variance in how board certification language and data are used and displayed, causing unnecessary confusion for not only the public, but also for patient advocates with health care backgrounds and experience.

The confusing nature of individual physician-level data and performance information is becoming more crucial since consumers are increasingly tasked with accounting for the value of the health care they seek as well as the responsibility for paying a larger upfront out-of-pocket expense for their care due to changes in employer-provided health care coverage. For employers purchasing and employees paying for care, Board Certification is widely valued as a marker of professional competence in a specialty. These presenters warned about potential dilution of certification's value if Board standards were to become "watered down" and unable to demonstrate that physicians were keeping up-to-date.

These advocates also raised issues ranging from the difficulty of accessing appropriate care to the affordability of care to the use of adequate performance measures and hospital ratings. Although the speakers and Commission members agreed that continuing certification programs cannot address all the issues facing health care today, there are issues about physician-level data and performance information that require greater clarity. The public representatives stressed the value of continuing certification and encouraged the system to maintain high standards and promote quality care.

Summary of the Public Perspective Testimony:

This testimony further highlighted the complexity of continuing certification within an ever-evolving and fragmented health care delivery system and how the public depends on physician-level data when seeking care.

- The public places value on easy access to accurate physician-level information.
- The public believes that board certification is a mark of quality and continuing certification is important to quality care
- The public wants to feel confident about one's choice of a physician.
- The public believes that the medical profession is obligated to provide information it can trust.

OTHER PROFESSIONAL ORGANIZATIONS

At its first meeting, the Commission became more familiar with the roles of the AAMC and the NBME and heard their organizational perspectives on continuing certification. The AAMC leadership and its members (medical schools

and teaching hospitals) envision achieving an affordable, safe and equitable health care system that must focus on the entire continuum of medical education and promotion of an education system that produces a diverse workforce that meets the nation's health care and research needs. Regarding continuing certification, AAMC emphasizes that all physicians must develop and maintain a career-long process to remain current in medical knowledge while continuing to hone clinical and technical skills and adapt to changing norms in practice. They advocated for a continuing certification approach that would be optimally designed, efficient, and able to effectively assess and demonstrate competence to patients and professional colleagues over a physician's entire career.

Likewise, NBME leadership provided Commission members with an overview of its role in assessment in medicine emphasizing its expertise in psychometrics, test development and test administration as well as its program governance and policy approaches. While the NBME recognizes that highly reliable, multiple-choice examinations are necessary, they also recognize that these examinations are not sufficient for evaluating health care professionals who are caring for the public. NBME believes continuing certification processes need to look beyond high-stakes, point-in-time assessment to workplace-based assessment and continuous learning models that are relevant to practice. Workplace-based assessment and continuous learning models, however, pose challenges regarding the need for quality assurance and identification of the physician being assessed.

At its second meeting, the Commission had the opportunity to hear from executive leadership of the American Osteopathic Association (AOA) regarding its experience with continuing certification. While Osteopathic Continuous Certification is also being refined, it has experienced less push back since implementation. Osteopathic medicine has fewer specialties, and the average age of osteopathic physicians is younger than allopathic physicians. In general, younger physicians are more comfortable with an ongoing assessment process regardless of program.

Summary of AAMC, NBME, and AOA Testimony:

AAMC, NBME, and AOA testimony and related discussion from both meetings highlighted the importance of the following concepts:

- Adapting to changing norms in practice in addition to remaining current in medical knowledge and skills over a diplomate's professional career.
- Exploring workplace-based assessment and continuous learning models for increased relevance to practice while identifying the challenges these approaches present to the foundational principles of physician assessment.
- Recognizing the complexity of a continuing certification approach that incorporates numerous specialties and subspecialties, and multiple generations of practicing physicians.

STATE MEDICAL SOCIETIES

Over the two meetings, leadership from the state medical associations of California, Florida, Georgia, New York, Ohio, Pennsylvania, Virginia, and Wyoming provided testimony. Testimony focused on these issues -- the importance of self-regulation in medicine and the concerns of some members regarding the burden, the lack of perceived value of participating in continuing certification programs, and the consequences of not participating in or not meeting the requirements of the Boards' continuing certification programs. State medical society leadership identified that the Member Boards have different continuing certification programs, and as a result, not all of their members are

questioning the value of participating in some Boards' programs. They noted that many of the Boards are listening to their diplomates and are positively responding to the feedback they have received on cost, burden, and relevance.

However, presenters noted some Boards are not perceived to be listening and are not addressing diplomates' concerns with the current processes and requirements. They recognized the different philosophical approaches to continuing certification by the Member Boards, and these differences impact how their members believe they are treated by their respective Boards. Instead of supporting relevant continued professional development in the specialty to enable diplomates to best serve patients, some of the Boards' processes are perceived to be adding to existing professional pressures due to the time and cost involved in preparing for, and passing high-stakes exams, and fulfilling other poorly valued components of the programs.

The primary concern shared with the Commission, however, regarded the consequences of losing one's certification when not meeting the requirements or when not participating in the Boards' programs. The representatives noted that some diplomates have experienced a negative impact on their employment, their hospital privileges or ability to be included on insurance panels which impacts their ability to be reimbursed. Some state societies have sought legislative relief to support their members against the use of certification as a criterion for these adverse actions. These legislative efforts have underscored the lack of communication and positive relationships among state medical associations, Member Boards, and ABMS and the need to repair the perceived breach of fundamental trust among physicians, the state medical associations, and the Boards. Discussion of these consequences and resulting legislative actions also touched upon the differences between certification, credentialing and licensure, and the intersection of the three processes concerning disciplinary actions.

The state medical associations supported the role of Continuing Medical Education (CME) in diplomates' ongoing education and some expressed interest in the ongoing learning and assessment processes that incorporate specialty-specific questions in real time. They noted that to achieve broader acceptance of continuing certification programs would entail ensuring that the programs support diplomates in their efforts to stay on top of their field without undue distress.

Summary of State Medical Society Testimony:

Testimony and related discussion at both meetings from State Medical Society representatives called out the following:

- State Medical Societies acknowledged value in continuing certification programs, especially CME/Continuing Professional Development (CPD) requirements and the potential of lower stakes, periodic, less burdensome assessments.
- State medical societies receive many complaints regarding maintenance certification from those diplomates in the primary care boards.
- Not all members question the value of participating in their respective continuing certification programs.
- Many of their members have found their respective Boards to be listening and responding to diplomate concerns regarding cost and burden, and their members are reacting positively to innovations regarding CME and longitudinal assessment.
- Differences between Boards in perceived value, responsiveness, and willingness to innovate heighten the negative response of other members.

- The primary concern amongst their members is the consequential decision about whether a diplomate is certified or not based on participation and performance in continuing certification programs. If a diplomate is no longer certified, this decision can negatively impact diplomate employment, credentialing, and reimbursement. There was an expressed need to address this issue.

PRACTICING PHYSICIANS

Between the two Commission meetings, informal presentations were provided by 11 physicians from a range of specialties, including Allergy & Immunology, Internal Medicine/Cardiology, Emergency Medicine, Medical Genetics & Genomics, Neurology, Radiology, Internal Medicine/Rheumatology, and Surgery; serving in diverse roles and practice settings. Some of the physician speakers held volunteer and/or leadership roles with a Board or society. For more information on the speakers, please see the Appendix.

The physicians expressed both supportive and critical perspectives about the value and relevance of the continuing certification process to physicians and their patients, cost and time involved, importance of educational content and feedback on performance, consequences regarding performance and participation, and opportunities for engagement with the Boards to build awareness, understanding, and trust. Whereas some of the physicians cited the role participating in continuing certification has played in helping them stay current in their fields, others cited that their requirements lacked the significant depth and/or cross-discipline content needed to be relevant to how medicine is practiced today.

Some of the testimony focused on the perceived lack of flexibility with the Boards' programs when other practice concerns and/or personal concerns arise that affect the prescribed certification deadlines. For some physicians, these circumstances lead to frustration and further burnout.

Some physicians cited value in continuing medical education programs but little to no value in improvement in medical practice activities and high-stakes assessments. They did express interest in longitudinal assessment-type programs that provide immediate feedback on performance and identify knowledge gaps. Some also provided ideas about how to model the program in the future.

To seek a better understanding of the issues raised by these physicians, Commission members asked several clarifying questions and/or requested additional detail. Questions also focused on how continuing certification could be structured in the future to be of benefit to them and their colleagues within their specific practice settings and at this stage of their careers.

Summary of Physician Testimony:

Physician testimony and related discussion at both meetings noted the following:

- Physicians recognized the value of lifelong learning and continuous professional development. Some believed current continuing certification programs provide value while others did not. Some support a system of lifetime certification with CME requirements as sufficient.
- While some physician speakers expressed strong frustration with the current programs of their respective Boards,

other physician speakers were supportive of continuing certification programs and the changes their Boards were making.

- Some physicians valued their Boards' continuing certification programs while others did not.
- CME/CPD was generally well received as a component of continuing certification but there was recognition that the quality of CME/CPD activities was highly variable.
- There is wide variation in program requirements among the Boards but also perceived variations within subspecialty areas of practice within a Board.
- Periodic, more formative assessments with immediate feedback was of interest to most of the physicians instead of high-stakes, summative assessments.
- The variances regarding cost and time involved, educational content and feedback, and negative consequences have led to a perceived loss of a long-established sense of trust between physicians and their Boards. The absence of flexibility in response to individual situations is further evidence of this loss of trust.
- While physicians differed on their perspectives regarding CME and other educational resources, all saw the potential for improving these resources.
- Physicians recognized that they knew of colleague physicians who were not performing well but were at a loss in how to address it.

PORTFOLIO PROGRAM SPONSORS, HOSPITALS AND HEALTH SYSTEMS, AND CREDENTIALING STAFF:

In several sessions, the Commission also received perspectives from hospital and health systems and other health care organizations on the value of continuing certification programs and the Board Certification credential. During testimony, the Commission heard from important stakeholders housed within health care organizations – administration, quality improvement (QI), and medical staff credentialing. Representatives were from Colorado Permanente Medical Group, HealthPartners, Interstate Postgraduate Medical Association, Johns Hopkins, Mercy Quality and Safety Center, Seattle Children's Hospital, St. Joseph Hospital, The Greeley Company, Inc., University of Colorado Hospital, and the University of North Carolina Health Care System.

ABMS Portfolio Program Sponsors representing four different types of health care organizations (a large academic medical center, a regional children's hospital, a community hospital, and a multi-state medical education collaborative) opened their session discussing the value of having quality improvement as part of continuing certification programs. Portfolio Program Sponsors accept QI projects on behalf of physicians working within a given setting, and the implemented QI projects fulfill Improvement in Medical Practice requirements for 20 of the 24 Member Boards. Each of the presenters emphasized how the Portfolio Program projects reflect their organization's priority of supporting physicians in practice to provide quality, safe, and high-value care to patients. The structure of the projects recognizes the varying awareness and knowledge levels of all learners involved in the project. Portfolio Program projects address the need for continuing certification approaches to be practice relevant and provide evidence of improvement in care. The Commission learned about the range of projects and number of participants in different regions across the country. Portfolio Program Sponsor representatives noted that the program could be improved by encouraging QI coaches, incorporating resident/trainee involvement, increasing the participation of referring physicians, leveraging more local- and regional-level data, and by decreasing current documentation requirements.

Representatives from health care systems reiterated the role continuing certification programs could play in addressing health care organizations' strategic and operational goals. They also acknowledged that the language and processes are varied and complex and would welcome more alignment among specialties. Like the representatives from the Portfolio Program, they emphasized the importance of a continuing certification process that not only focused on medical knowledge but also emphasized learning, assessment, and improvement in communications skills, discipline-specific and interprofessional team skills, patient care and procedural skills (especially for physicians with lower volumes), patient safety, and ability to function within locally-based systems. In response to this testimony, Commission members asked about how these other skills or competencies could be assessed best by the Boards. The representatives acknowledged that while the Boards currently create their specific knowledge-based assessments and related resources, they suggested that some health care systems may be willing to work with the Boards in creating appropriate tools and/or valid local tools.

The Commission then heard from four experienced credentialers, who are active in the National Association of Medical Staff Services. They spoke highly of the historical acceptance of ABMS Board Certification as the standard for credentialing. They also reiterated concerns regarding the need for greater clarity in continuing certification language and display of certification status and provided their perspective on current legislative actions. In addition, these credentialing experts suggested several ways in which continuing certification programs could build upon existing data at the local level and/or supplement local data needs that could result in some national benchmarks for care.

Summary of Portfolio Program Sponsors, Hospitals/Health Systems, and Credentialing Staff Testimony:

The testimony from the Portfolio Program Sponsors, hospitals/health systems and credentialing staff addressed shared concerns about burden and inconsistency, and emphasized opportunities for improvement through local collaboration:

- Presenters articulated the need for a system of continuing certification, but differences in Member Boards' program requirements created challenges for them.
- Portfolio Program projects reflect and impact organizational priorities in quality, safety, and high-value care, but Portfolio Program Sponsors saw opportunities for further impact by incorporating additional locally-based individuals such as coaches, residents, and referring physicians, and by leveraging more local- and regional-level data.
- Hospital and health system representatives want to see continuing certification programs emphasize learning, assessment, and improvement in communications, discipline-specific and interprofessional team skills, evaluation of providers with lower numbers of patients/cases, and systems-based thinking.
- Some hospitals and health systems have local data and activities that could be recognized as part of the continuing certification programs.
- The credentialers encouraged building upon and/or supplementing institutional accreditation practices to nationally benchmark areas of care.

CME PROVIDERS

During its March meeting, members of the Commission heard from several accredited CME providers affiliated with medical specialty societies and hospitals. The discussion focused primarily on the differing perspectives of whether

participating solely in CME activities is sufficient to keep physicians up-to-date and to help them improve practice. This issue was raised by many of the stakeholders that presented to the Commission.

The CME session also focused on the application of adult learning principles in all types of CME activities to build upon the natural curiosity of physicians and to create further self-awareness within physicians regarding their gaps in knowledge and skills to improve practice and prevent error. Data presented underscored the difficulties and inaccuracies of physician self-assessments. Physicians whose actual performance is objectively low are at the highest risk of overestimating their performance. However, informing self-awareness with objective data can help physicians improve performance. A clear distinction was made between the concept of “physician self-directed learning” from “directed self-learning for physicians” based upon identifying medical knowledge and performance gaps. The CME presenters also underscored the need for ongoing professional education that is relevant to the scope of the physician’s practice.

Summary of CME Providers Testimony:

The role of CME and adult learning principles was interspersed across testimony heard from the various stakeholder groups. During the course of their testimony, CME providers indicated the following:

- They welcome working with the Boards to reduce duplication, cover core content and competencies, provide guidance to appropriate and available activities, create reporting structures, and enhance data collection and sharing at the local, regional, and national level.
- They desire a more meaningful integration of these adult learning principles and emerging technologies, including the use of valid evidence-based metrics and tools as springboards for education and learning.
- They support the use of engaging assessments that have increased relevance for the diplomate’s practice to move beyond the passive activities.

INTERNATIONAL MODELS

At its meeting in May, the Commission had the opportunity to hear about how physicians are expected to stay current in other nations. An overview of international models of physician certification was provided by leadership at the Foundation for the Advancement of International Medical Education and Research and the Royal College of Physicians and Surgeons of Canada. Speakers offered a synopsis of the processes currently in place (or soon to be launched) in the United Kingdom, European Union, Canada, and Australia. To provide context, the presenters along with members of the Commission stressed the differences in residency training approaches and historical (and currently evolving) approaches to the delivery of care within each country.

The Commission learned why each of these continuing certification or revalidation approaches were originally adopted, how each approach is evolving, and how each approach is being accepted by practicing physicians. Each of these models involve education, learning, skills development, and evaluation, but differences lie in areas of emphasis regarding elements of oversight, self-directed learning and assessment, workplace-based activities and resources, and sources and accessibility of data on physician competencies. While the Commission will reflect on these models as it continues its work, of interest to the Commission was the reason the UK adopted its current approach to revalidation.

By failing to adequately self-regulate as evidenced in a series of medical scandals resulting in the death of patients, the UK's medical profession lost its ability to self-regulate.

Summary of International Models:

The presentation of international models further emphasized the significance of context and scale in continuing certification approaches:

- In the UK where medical training is much longer and the health system is more national in scale, physicians lost their ability to self-regulate from a perceived lack of willingness to do so effectively.
- International models have strong CPD components.
- International continuing certification programs are often linked to licensure and blend certification and licensure processes that are distinctly divided by state medical boards and certifying ABMS Member Boards in the United States.
- International models place an emphasis on periodic reviews of a physician's practice including reviewing performance and measuring outcomes.
- Some models are based on assessing practice, developing and implementing learning plans, and then evaluating performance.

CONCLUSION

The Commission thanks the presenters who came and provided valuable testimony about their perspectives of continuing certification. The information will inform the next steps of the process. What is clear is that the majority of the presenters recognize the value and necessity of lifelong learning. While they appreciate the innovation and engagement of the Boards as changes are made to continuing certification programs, they look forward to seeing how the programs continue to evolve. All are interested in being part of the future of continuing certification.

Appendix 8. Contributors Providing Public Testimony

ABMS MEMBER BOARDS

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American College of Rheumatology

Tristan Gorrindo, MD
Director of Education and Deputy Medical Director
American Psychiatric Association

Colleen A. Kraft, MD, FAAP
President
American Academy of Pediatrics

Hal C. Lawrence, III, MD
Executive Vice President & Chief Executive Officer
American College of Obstetrics & Gynecology

Michael Munger, MD, FAAFP
President
American Academy of Family Physicians

Catherine M. Rydell, CAE
Executive Director and Chief Executive Officer
American Academy of Neurology

Thomas E. Stautzenbach, MA, MBA, CAE
Executive Director and Chief Executive Officer
American Academy of Physical Medicine and
Rehabilitation

PERSPECTIVES OF THE PUBLIC

Leah Binder
President and Chief Executive Officer
The Leapfrog Group

Joyce Dubow
Senior Principal for Health Policy and Strategy (Retired)
AARP

Tara Montgomery
Founder/Principal
Civic Health Partners

Edward J. Susank
Public Representative
Advisory Board, Interprofessional Continuing Education
National Center for Interprofessional Practice and
Education
Public Member, Board of Directors
National Board of Certification & Recertification for
Nurse Anesthetists

OTHER PROFESSIONAL ORGANIZATIONS

Brian E. Clauser, EdD
Vice President
Center for Advanced Assessment
National Board of Medical Examiners

John Prescott, MD
Chief Academic Officer
Association of American Medical Colleges

Alison Whelan, MD
Chief Medical Education Officer
Association of American Medical Colleges

Adrienne White-Faines, MPA, FACHE
Chief Executive Officer
American Osteopathic Association

STATE MEDICAL SOCIETIES

Robyn F. Chatman, MD, MPH, FAAFP
President
Ohio State Medical Association

Charles Cutler, MD, MACP
Past President
Pennsylvania Medical Society

Kurtis S. Elward, MD, MPH
President
Medical Society of Virginia

Corey L. Howard, MD
President-Elect
Florida Medical Association

Paul Johnson, MD
Past President
Wyoming Medical Society

Thomas J. Madejski, MD
President-Elect
Medical Society of the State of New York

Theodore M. Mazer, MD
President
California Medical Association

Donald Palmisano, Jr., JD
Chief Executive Officer and Executive Director
Medical Association of Georgia

PRACTICING PHYSICIANS

Stephen Dreskin, MD
Director
University of Colorado
Allergy and Immunology Practice
Director
Allergy, Asthma, Immunology, Rhinology and
Inflammation Pillar
University of Colorado
Health Center for Lungs and Breathing

Janet Eng, DO
Emergency Medicine Physician/Medical Toxicologist
McLaren Greater Lansing

Kim M. Feldhaus, MD
Emergency Medicine Physician
Boulder Emergency Physicians

Elizabeth Franco, MD, MPH&TM
Attending Surgeon
Trauma/Acute Care Surgery
Inova Medical Group

Mark Lopatin, MD, FACP, FACR, FCPP
Rheumatologist
Rheumatic Disease Associates

Paul G. Mathew, MD, DNBPAS, FAAN, FAHS
Neurologist
Advisory Board Member
National Board of Physicians and Surgeons

Maximilian Muenke, MD, FACMG
Chief & Senior Investigator
Medical Genetics Branch
National Human Genome Research Institute

John Pickrell, MD, FACC
Cardiologist
Wyoming Cardiopulmonary Services, PC

Jack A. Sava, MD, FACS
Chief of Trauma
Residency Program Director, General Surgery
MedStar Washington Hospital Center

Brent J. Wagner, MD
Diagnostic Radiologist
West Reading Radiology Associates

PORTFOLIO PROGRAM SPONSORS, HOSPITALS AND HEALTH SYSTEMS AND CREDENTIALING STAFF

Mary W. Ales, CCMEP, FACEHP
Executive Director
Interstate Postgraduate Medical Association

Joan Bissen
Executive Director
HealthPartners Institute

Carol S. Cairns, CPMSM, CPCS
President and Advisory Consultant
PRO-CON, The Greeley Company, Inc.

Ethan Cumbler, MD, FHM, FACP
President, Medical Staff
University of Colorado Hospital and School of Medicine

Todd Dorman, MD
Senior Associate Dean
Education Coordination
Associate Dean, Continuing Medical Education
Professor & Vice Chair, Critical Care
Johns Hopkins

Diane M. Meldi, MBA, CPCS, CPMSM
Executive Director
Medical Services
Mercy Quality and Safety Center

Christine "Cris" Mobley, CPMSM, CPCS
Owner and Co-Founder
Edge-U-Cate, LLC
C Mobley & Associates, LLC

Sharisse Arnold Rehring, MD, FAAP
Director of Medical Education
Director of Pediatric Medical Education
Colorado Permanente Medical Group
Clinical Professor Pediatrics
University of Colorado School of Medicine

Alwin F. Steinmann, MD
Chief of Academic Medicine
St. Joseph Hospital

Joel S. Tieder, MD, MPH
Director
Maintenance of Certification
Associate Professor
Seattle Children's Hospital

Linda Waldorf, BS, CPMSM, CPCS
Director
Centralized Credentialing Office
Office of Medical Staff Services
University of North Carolina Health Care System

CONTINUING MEDICAL EDUCATION (CME) PROVIDERS

Julie Bruno, MSW, LCSW
Chief Learning Officer
American Academy of Hospice and Palliative Medicine

Karen E. Heiser, PhD
Vice President & Education CIPE Administration
Nationwide Children's Hospital

INTERNATIONAL MODELS

Craig M. Campbell, MD, FRCPC, FSACME
Principal Senior Advisor
Competency-based Continuing Professional
Development
Office of Specialty Education
Royal College of Physicians and Surgeons of Canada

Mira Irons, MD
Senior Vice President
Academic Affairs
American Board of Medical Specialties

John J. Norcini, PhD
President and Chief Executive Officer
Foundation for Advancement of International Medical
Education and Research

Appendix 9. Contributors Providing Oral and Written Testimony

Contributor titles and positions as reported at the time of testimony submission

ORGANIZATION	WRITTEN	ORAL	DATE
ABMS Member Boards			
Richard J. Baron, MD, MACP President and Chief Executive Officer American Board of Internal Medicine and the ABIM Foundation	X	X	May 30, 2018
Richard G. Battaglia, MD Chief Medical Officer American Board of Internal Medicine	X	X	March 19, 2018
Miriam G. Blitzer, PhD, FACMG Chief Executive Officer American Board of Medical Genetics and Genomics	X	X	March 19, 2018
Daniel J. Cole, MD Executive Director, Professional Affairs American Board of Anesthesiology		X	March 19, 2018
Larry R. Faulkner, MD President and Chief Executive Officer American Board of Psychiatry and Neurology		X	May 30, 2018
Warren R. Heymann, MD Director American Board of Dermatology	X		March 5, 2018
Rebecca L. Johnson, MD Chief Executive Officer American Board of Pathology	X		March 20, 2018
Michael Jones, MD Chair, Maintenance of Certification Committee American Board of Pathology		X	March 19, 2018
Gerald H. Jordan, MD Executive Secretary American Board of Urology	X	X	March 19, 2018
Carolyn L. Kinney, MD Executive Director American Board of Physical Medicine and Rehabilitation		X	May 30, 2018

ORGANIZATION	WRITTEN	ORAL	DATE
Marshall L. Land, Jr., MD Advisor for Diplomate Outreach and Strategic Planning American Board of Pediatrics	X	X	March 19, 2018
Lela Lee, MD Associate Executive Director American Board of Dermatology		X	May 30, 2018
Mark A. Malangoni, MD Associate Executive Director American Board of Surgery		X	March 19, 2018
David F. Martin, MD Executive Medical Director American Board of Orthopaedic Surgery		X	March 19, 2018
Brian Nussenbaum, MD, MHCM, FACS Executive Director American Board of Otolaryngology – Head and Neck Surgery		X	March 19, 2018
James C. Puffer, MD President and Chief Executive Officer American Board of Family Medicine		X	May 30, 2018
George D. Wendel, Jr., MD Executive Director American Board of Obstetrics and Gynecology		X	May 30, 2018
Assessment Experts and Psychometricians			
John (Jack) R. Boulet, PhD Vice President Research and Data Resources Foundation for Advancement of International Medical Education and Research Educational Commission for Foreign Medical Graduates		X	March 20, 2018
Andrew C. Dwyer, PhD Director of Psychometrics American Board of Pediatrics		X	March 19, 2018
Ann Harman, PhD Chief Assessment Officer American Board of Anesthesiology		X	March 19, 2018
Rebecca S. Lipner, PhD Senior Vice President Assessment and Research American Board of Internal Medicine	X	X	March 19, 2018

ORGANIZATION	WRITTEN	ORAL	DATE
Michael Peabody, PhD Senior Psychometrician American Board of Family Medicine		X	March 19, 2018
Specialty Societies			
Peter B. Angood, MD, FRCS(C), FACS, MCCM President and Chief Executive Officer American Association for Physician Leadership	X		March 22, 2018
Patrick V. Bailey, MD, FACS Medical Director Division of Advocacy and Health Policy American College of Surgeons		X	March 19, 2018
Helen Burstin, MD, MPH, FACP Executive Vice President & Chief Executive Officer Council of Medical Specialty Societies	X	X	March 19, 2018
Elizabeth Cobbs, MD Professor of Medicine Fellowship Director Geriatrics The George Washington University School of Medicine and Health Sciences American Geriatrics Society	X	X	March 19, 2018
David I. Daikh, MD, PhD President American College of Rheumatology	X	X	March 19, 2018
Tristan Gorrindo, MD Director of Education and Deputy Medical Director American Psychiatric Association		X	May 30, 2018
Clifford A. Hudis, MD, FACP, FASCO Chief Executive Officer American Society of Clinical Oncology	X		March 13, 2018
Colleen A. Kraft, MD, FAAP President American Academy of Pediatrics		X	March 19, 2018
Hal C. Lawrence, III, MD Executive Vice President & Chief Executive Officer American College of Obstetrics and Gynecology		X	May 30, 2018
John Meigs, Jr., MD, FAAFP Board Chair American Academy of Family Physicians	X		March 14, 2018

ORGANIZATION	WRITTEN	ORAL	DATE
Michael Munger, MD, FAAFP President American Academy of Family Physicians		X	March 19, 2018
Catherine M. Rydell, CAE Executive Director and Chief Executive Officer American Academy of Neurology		X	May 30, 2018
Thomas E. Stautzenbach, MA, MBA, CAE Executive Director and Chief Executive Officer American Academy of Physical Medicine and Rehabilitation		X	May 30, 2018
Laura Thevenot Chief Executive Officer American Society for Radiation Oncology	X		March 13, 2018
Alexis Thompson, MD, MPH President American Society of Hematology	X		October 26, 2018
Perspectives of the Public			
Leah Binder President and Chief Executive Officer The Leapfrog Group	X	X	March 20, 2018
Joyce Dubow Senior Principal for Health Policy and Strategy (Retired) AARP	X	X	March 20, 2018
Tara Montgomery Founder/Principal Civic Health Partners		X	March 20, 2018
Edward J. Susank Public Representative Advisory Board, Interprofessional Continuing Education National Center for Interprofessional Practice and Education Public Member, Board of Directors National Board of Certification & Recertification for Nurse Anesthetists	X	X	March 20, 2018

ORGANIZATION	WRITTEN	ORAL	DATE
Other Professional Organizations			
Brian E. Clauser, EdD Vice President Center for Advanced Assessment National Board of Medical Examiners	X	X	March 20, 2018
John R. Combes, MD Senior Advisor The Southport Group		X	May 31, 2018
Eric Holmboe, MD, MACP, FRCP Senior Vice President Milestones Development and Evaluation Accreditation Council for Graduate Medical Education		X	June 1, 2018
Graham T. McMahon, MD, MMSc President and Chief Executive Officer Accreditation Council for Continuing Medical Education		X	May 31, 2018
John Prescott, MD Chief Academic Officer Association of American Medical Colleges	X	X	March 20, 2018
Alison J. Whelan, MD Chief Medical Education Officer Association of American Medical Colleges	X	X	March 20, 2018
Adrienne White-Faines, MPA, FACHE Chief Executive Officer American Osteopathic Association	X	X	May 31, 2018
State Medical Societies			
Robyn F. Chatman, MD, MPH, FAAFP President Ohio State Medical Association	X	X	March 19, 2018
Charles Cutler, MD, MACP Past President Pennsylvania Medical Society		X	May 30, 2018
Kurtis S. Elward, MD, MPH President Medical Society of Virginia	X	X	March 20, 2018
Corey L. Howard, MD, FACP President-Elect Florida Medical Association	X	X	March 20, 2018

ORGANIZATION	WRITTEN	ORAL	DATE
Paul Johnson, MD Past President Wyoming Medical Society		X	May 30, 2018
Thomas J. Madejski, MD President-Elect Medical Society of the State of New York	X	X	March 20, 2018
Theodore M. Mazer, MD President California Medical Association		X	May 31, 2018
Donald J. Palmisano, Jr., JD Executive Director and Chief Executive Officer Medical Association of Georgia		X	May 31, 2018
Practicing Physicians			
Stephen C. Dreskin, MD, PhD Director University of Colorado Allergy and Immunology Practice Director Allergy, Asthma, Immunology, Rhinology and Inflammation Pillar University of Colorado Health Center for Lungs and Breathing		X	May 31, 2018
Janet Eng, DO Emergency Medicine Physician/Medical Toxicologist McLaren Greater Lansing	X	X	March 20, 2018
Kim M. Feldhaus, MD Emergency Medicine Physician Boulder Emergency Physicians	X	X	May 31, 2018
Elizabeth Franco, MD, MPH&TM Attending Surgeon Trauma/Acute Care Surgery Inova Medical Group		X	March 20, 2018
Jack Gardner, MD, FAASM, FCCP Neurologist/Sleep Medicine	X		June 1, 2018
Mark Lopatin, MD, FACP, FACR, FCPP Rheumatologist Rheumatic Disease Associates, Ltd.		X	March 20, 2018

ORGANIZATION	WRITTEN	ORAL	DATE
Paul G. Mathew, MD, DNBPAS, FAAN, FAHS Neurologist Advisory Board Member National Board of Physicians and Surgeons		X	May 30, 2018
Maximilian Muenke, MD, FACMG Chief & Senior Investigator Medical Genetics Branch National Human Genome Research Institute		X	March 20, 2018
John Pickrell, MD, FACC Cardiologist Wyoming Cardiopulmonary Services, PC	X	X	May 31, 2018
Jack A. Sava, MD, FACS Chief of Trauma Residency Program Director, General Surgery MedStar Washington Hospital Center		X	March 20, 2018
Brent J. Wagner, MD Diagnostic Radiologist West Reading Radiology Associates		X	March 20, 2018
Portfolio Program Sponsors, Hospitals and Health Systems and Credentialing Staff			
Mary W. Ales, CCMEP, FACEHP Executive Director Interstate Postgraduate Medical Association		X	May 31, 2018
Joan Bissen Executive Director HealthPartners Institute		X	May 31, 2018
Carol S. Cairns, CPMSM, CPCS President and Advisory Consultant PRO-CON, The Greeley Company, Inc.		X	May 31, 2018
Ethan Cumbler, MD, FHM, FACP President, Medical Staff University of Colorado Hospital and School of Medicine		X	May 31, 2018
Todd Dorman, MD Senior Associate Dean Education Coordination Associate Dean, Continuing Medical Education Professor & Vice Chair, Critical Care Johns Hopkins		X	May 31, 2018

ORGANIZATION	WRITTEN	ORAL	DATE
Diane M. Meldi, MBA, CPCS, CPMSM Executive Director Medical Services Mercy Quality and Safety Center		X	May 31, 2018
Christine "Cris" Mobley, CPMSM, CPCS Owner and Co-Founder Edge-U-Cate, LLC C Mobley & Associates, LLC		X	May 31, 2018
Sharisse Arnold Rehring, MD, FAAP Director of Medical Education Director of Pediatric Medical Education Colorado Permanente Medical Group Clinical Professor Pediatrics University of Colorado School of Medicine		X	May 31, 2018
Alwin F. Steinmann, MD Chief of Academic Medicine St. Joseph Hospital		X	May 31, 2018
Joel S. Tieder, MD, MPH Director Maintenance of Certification Associate Professor Seattle Children's Hospital	X	X	May 31, 2018
Linda Waldorf, BS, CPMSM, CPCS Director Centralized Credentialing Office Office of Medical Staff Services University of North Carolina Health Care System		X	May 31, 2018
Continuing Medical Education (CME) Providers			
Julie Bruno, MSW, LCSW Chief Learning Officer American Academy of Hospice and Palliative Medicine	X	X	March 20, 2018
Karen E. Heiser, PhD Vice President Education CIPE Administration Nationwide Children's Hospital	X	X	March 20, 2018

ORGANIZATION	WRITTEN	ORAL	DATE
<p>Mitchell R. Humphreys, MD Consultant in Urology Chair of Urology Dean Mayo Clinic School of Continuous Professional Development Professor of Urology College of Medicine and Science</p> <p>Erik St Louis, MD Consultant Neurology Division Chair, Sleep Neurology Associate Dean Mayo Clinic School of Continuous Professional Development Associate Professor of Neurology College of Medicine and Science</p> <p>Barbara Baasch Thomas, RN, MA Administrator Education Operations Mayo Clinic School of Continuous Professional Development and Online University</p> <p>Peggy Paulson Operations Manager-Education Mayo Clinic School of Continuous Professional Development</p>	X		June 6, 2018
International Models			
<p>Craig M. Campbell, MD, FRCPC, FSACME Principal Senior Advisor Competency-based Continuing Professional Development Office of Specialty Education Royal College of Physicians and Surgeons of Canada</p>		X	May 30, 2018
<p>Mira Irons, MD Senior Vice President Academic Affairs American Board of Medical Specialties</p>		X	May 30, 2018

ORGANIZATION	WRITTEN	ORAL	DATE
John J. Norcini, PhD President and Chief Executive Officer Foundation for Advancement of International Medical Education and Research		X	May 30, 2018
ABMS Board of Directors			
Larry A. Green, MD Board of Directors		X	May 30, 2018
John C. Moorhead, MD, MS, FACEP Chair Board of Directors		X	May 30, 2018
Barry S. Smith, MD Chair - Elect Board of Directors		X	May 30, 2018
Planning Committee			
Norman B. Kahn, Jr., MD Co-Chair		X	March 19, 2018
Lois Margaret Nora, MD, JD, MBA Co-Chair		X	March 19, 2018

Appendix 10. Commission Members

Co-Chair Christopher Colenda, MD, MPH

Dr. Colenda is President Emeritus of West Virginia University Health System (WVUHS), having held the position of President/CEO from 2014-16. Prior to his leadership of WVUHS, he was Chancellor for Health Sciences at West Virginia University (WVU). As Chancellor he was the architect of a number of strategic initiatives, including the establishment of a School of Public Health, leading efforts that resulted in the awarding of the National Institute of Health's IDeA Clinical and Translation Research Award and establishing the Interprofessional Education Center.

Before WVU he was the Dean at the College of Medicine at Texas A&M University Health Sciences Center (conferred Dean Emeritus) and Chairman of Psychiatry at Michigan State University's College of Human Medicine.

Dr. Colenda has served on the Board of Directors of the Accreditation Council on Graduate Medical Education; Treasurer and Vice Chair of the American Board of Psychiatry and Neurology; and was a member of the Executive Board of the National Board of Medical Examiners. He has been on the Administrative Board of the Council of Deans for the American Association of Medical Colleges; the Liaison Committee for Medical Education, serving as chair in 2012-13; and was the Co-Chair of the Special Committee on Physician Executives and Continuing Maintenance of Certification for the American Board of Medical Specialties.

Dr. Colenda was a member of the Psychological Health External Advisor Committee of the Defense Health Board for the U.S. Department of Defense, and he was appointed to the Health Systems Governing Council of the American Hospital Association in 2016. Dr. Colenda is Board Certified by the American Board of Psychiatry and Neurology.

Co-Chair William Scanlon, PhD

Dr. Scanlon is a Consultant to the West Health Institute in La Jolla, CA. He is also a member of the Medicaid and CHIP Payment and Access Commission and the Patient Access Network Foundation Board. He has served as the public member of the American Board of Surgery and on the Medicare Payment Advisory Commission, the National Committee on Vital and Health Statistics, the National Commission for Quality Long-Term Care, and the 2005 White House Conference on Aging Advisory Committee. Previously, he was the Managing Director for Health Care at the U.S. General Accounting Office, a Co-Director of the Georgetown University School of Medicine Center for Health Policy Studies and a Principal Research Associate at the Urban Institute.

Roxie M. Albrecht, MD, FACS, FCCM

Dr. Albrecht is a Professor and Vice Chair of Quality, Division Chief of General Surgery, Trauma and Surgical Critical Care for the Department of Surgery at the University of Oklahoma. She also serves as a Director for the American Board of Surgery and is Chair of the Credentials Committee, actively involved in the examination and certification process for general surgery and surgical critical care. Dr. Albrecht is Board Certified by the American Board of Surgery.

Jann Torrance Balmer, PhD, RN, FACEHP, FAAN

Dr. Balmer serves as the Director for Continuing Medical Education (CME) at the University of Virginia School of Medicine, an Accreditation Council for Continuing Medical Education (ACCME) program Accredited with Commendation. She holds faculty appointments in the School of Medicine and Nursing and has provided strategic direction in the creation of the School of Nursing Continuing Education (CE) Program. Dr. Balmer is also serves as the Chair of the Commission for Accreditation for the American Nurses Credentialing Center. She served as the President, Past President and Board Member of the Alliance for Continuing Education in the Health Professions (formerly Alliance for CME receiving the Distinguished Service Award CE in the Health Professions. in 2014. Dr. Balmer also served on the Accreditation Review Committee for the ACCME and served as Chair during her six-year term.

Carol Berkowitz, MD, FAAP, FACEP

Dr. Berkowitz is the Division Chief of General Pediatrics in the Department of Pediatrics at Harbor-UCLA Medical Center and Distinguished Professor of Pediatrics at the David Geffen School of Medicine at UCLA. She is a member of the Board of Directors of the Accreditation Council for Continuing Medical Education, the National Resident Matching Program, and the Accreditation Review Commission on Education for the Physician Assistant. A delegate from the American Academy of Pediatrics to the American Medical Association (AMA), Dr. Berkowitz is the Vice Chair of the AMA's Council on Medical Education. Dr. Berkowitz is Board Certified by the American Board of Pediatrics.

Haywood L. Brown, MD

Dr. Brown is the immediate past President of the American College of Obstetricians and Gynecologists. He is a past President of the American Gynecological Obstetrical Society and Director of the American Board of Obstetrics and Gynecology. From 2002-2016, Dr. Brown was Chair of the Department of Obstetrics and Gynecology at Duke University. Dr. Brown is Board Certified by the American Board of Obstetrics and Gynecology.

Craig M. Campbell, MD, FRCPC (Ex Officio)

Dr. Campbell is the Principal Senior Advisor for Competency-based Continuing Professional Development at The Royal College of Physicians and Surgeons of Canada and also serves as an Associate Professor of Medicine at the University of Ottawa. He is a recipient of the Dave Davis Research in Continuing Medical Education Award, recognizing an individual or group of individuals who have made outstanding contributions to research in continuing medical education.

Davoren Chick, MD, FACP

Dr. Chick is the Senior Vice President, Medical Education for the American College of Physicians, responsible for educational products, collaborations with external educational organizations and professional societies, governance initiatives, continuing medical education accreditation, and maintenance of certification supports. She has practiced internal medicine in both private and academic centers. She is currently Adjunct Professor of Medicine practicing general internal medicine at the University of Pennsylvania Perelman School of Medicine. Dr. Chick is Board Certified with the American Board of Internal Medicine.

Carol Cronin, MSG, MSW

Ms. Cronin is Executive Director for the Informed Patient Institute, a nonprofit that she founded in 2007, providing information for consumers about health care quality, patient safety and health care costs. Ms. Cronin serves on the Boards of Directors for the National Quality Forum, the Physician Consortium for Performance Improvement, and is a member of the American Association of Medical College's quality improvement and patient safety competency project. In addition, she is Co-Chair of the Medical Board Roundtable, a national group of patient advocates looking at physician oversight in the context of state medical boards and issues of continually assuring that physicians are up-to-date.

Charles Cutler, MD, MACP

Dr. Cutler is an internal medicine specialist and served as the 167th President of the Pennsylvania Medical Society (PAMED). A 35-year member of PAMED, he served on its Board of Trustees as well as numerous committees, commissions, and taskforces. He has also served on the American College of Physician (ACP) Board of Regents and was a Chair of their Board of Governors, receiving their Mastership award for his service. He currently represents the ACP on the American Medical Association House of Delegates. Dr. Cutler is Board Certified by the American Board of Internal Medicine.

Patricia (Patti) Davis

Ms. Davis is President of the Oklahoma Hospital Association. From 2013 to September 2018, she was Senior Vice President of Strategy and Business Development and then Senior Vice President, External Affairs for the Oklahoma University Medical System in Oklahoma City. Prior to that, Ms. Davis served as Executive Vice President (2001 to 2013) as well as Vice President, Government Relations (1996 to 2001) of the Oklahoma Hospital Association. She also served as Chief Executive Officer for Carnegie Tri-County Municipal Hospital in Carnegie, Oklahoma.

Claudia Espinosa, MD, MSC, FAAP

Dr. Espinosa is Assistant Professor of Pediatrics at the University of Louisville School of Medicine in the Division of Pediatric Infectious Diseases and an attending physician at Norton Children's, Norton Women and Children's, and University of Louisville Hospitals in Louisville, KY. She is a member of the newly formed American Academy of Pediatrics Provisional Section on Minority Health, Equity and Inclusion. Dr. Espinosa is Board Certified by the American Board of Pediatrics.

Geoffrey M. Fleming, MD

Dr. Fleming is Vice President for Continuing Professional Development and an Associate Professor of Pediatrics at Vanderbilt University Medical Center. At the national level, he has served on and chaired a variety of committees at the Society of Critical Care Medicine, earning the Presidential Citation for service for two consecutive years. Dr. Fleming Chaired the Association of Pediatric Program Directors' Fellowship Program Director executive committee, a group whose work included recommendations to the Accreditation Council for Graduate Medical Education for protected time for fellowship program directors in pediatrics. Dr. Fleming is Board Certified by the American Board of Pediatrics.

Nitika Gupta, MBBS, DCH, DNB, MRCPCH

Dr. Gupta is an Associate Professor in the Division of Pediatric Gastroenterology, Hepatology and Nutrition at Emory University School of Medicine. She has pioneered several advocacy initiatives including developing a transition program for young adult transplant recipients and Advocacy committee for patients and families of transplant recipients. She is involved in faculty wellness programs at Children's Healthcare of Atlanta and serves on the steering committee of Emory Alliance of Women in Medicine & Science. She is a physician scientist with an active research and clinical career and is deeply engaged in mentoring trainees. Dr. Gupta is Board Certified by the American Board of Pediatrics.

Ole-Petter R. Hamnvik, MBBCh, BAO, MMSc

Dr. Hamnvik is an Assistant Professor at Brigham and Women's Hospital/Harvard Medical School, one of 42 doctors at Brigham and Women's Hospital who specialize in Endocrinology, Diabetes & Metabolism. In addition to his clinical work, Dr. Hamnvik is the Endocrinology Fellowship Program Director at Brigham and Women's Hospital, and the Education Editor for the New England Journal of Medicine Group. Dr. Hamnvik is Board Certified by the American Board of Internal Medicine.

Elsbeth J. R. Hill, MD, PhD

Dr. Hill is a Resident Physician in Plastic and Reconstructive Surgery at Washington University School of Medicine. She has extensive experience working in policy and education on a national scale and has experience with four countries' medical education systems. Dr. Hill also served in multiple leadership positions with the Royal College of Surgeons of England. She is the developer and Executive Chairman of Fastbleep.com, a non-profit online medical education site for medical students and young doctors with over 80,000 participants internationally.

Ronald B. Hirschl, MD

Dr. Hirschl is a Professor of Pediatric Surgery and Head of the Section of Pediatric Surgery at the University of Michigan C.S. Mott Children's Hospital. He is also President of the American Pediatric Surgical Association (APSA). Dr. Hirschl has served as a Program Director for fellowships in both Pediatric Surgery and Surgical Critical Care, as a Director of the American Board of Surgery, and as a member of the Surgery Residency Review Committee. Dr. Hirschl is Board Certified by the American Board of Surgery.

Paul E. Johnson, MD, FACS

Dr. Johnson is an otolaryngologist and past President of the Wyoming Medical Society. He also serves as a Clinical Instructor at the University of Washington, Department of Otolaryngology and on a number of boards and committees. Dr. Johnson is Board Certified by the American Board of Otolaryngology.

Bruce Leff, MD

Dr. Leff is a Professor in the Division of Geriatric Medicine at the Johns Hopkins University School of Medicine and Bloomberg School of Public Health. He has served in several leadership roles, including those at the American College of Physicians' Board of Regents and the Council of Subspecialty Societies, and the American Board of Internal Medicine (ABIM) as a member of the Geriatric Medicine Board Exam Committee and

Chair of the Geriatric Medicine Specialty Board, and as a member of the ABIM Council. Dr. Leff is Board Certified by the American Board of Internal Medicine.

Colonel Michael R. Nelson, MD, PhD

Colonel Nelson, MD, PhD serves as the Chief Consultant to the U.S. Army Surgeon General and Chief of Clinical Policy and Services Division. He also served as Clinic and Department Chief, and Chief Medical Officer for Walter Reed Army Medical Center as well as in other leadership positions including Vice Chair of an Accreditation Council for Graduate Medical Education Review Committee. He is President-elect of the American Board of Allergy and Immunology. Colonel Nelson is Board Certified by the American Board of Allergy and Immunology.

Donald J. Palmisano, Jr., JD

Mr. Palmisano is Executive Director and Chief Executive Officer of the Medical Association of Georgia. He also serves as current member of the board of directors and Immediate Past State Chair of the American Association of Medical Society Executives, the professional association of more than 1,400 medical society executives and staff specialists representing county, regional, state, state specialty, national specialty and international medical societies, as well as affiliated health care organizations and industry partners.

Earl J. Reisdorff, MD

Dr. Reisdorff is the Executive Director of the American Board of Emergency Medicine. Prior to serving in this role, Dr. Reisdorff was a practicing emergency physician, and past Program Director of the Michigan State University Emergency Medicine Residency Program, Director of Medical Education at Ingham Regional Medical Center in Lansing, MI, and an Associate Professor in Emergency Medicine. Dr. Reisdorff is Board Certified by the American Board of Emergency Medicine.

Andrea M. Russo, MD, FACC, FHRS

Dr. Russo is a Professor of Medicine, Cooper Medical School of Rowan University; Director, Electrophysiology and Arrhythmia Services; Director, Clinical Cardiac Electrophysiology Fellowship; and Director of Cardiovascular Research at Cooper University Hospital in Camden, NJ. She is the current 1st Vice President of the Heart Rhythm Society (HRS), Chair of the HRS Program Committee, and member of the HRS Board of Trustees. She also serves on the American College of Cardiology (ACC) Clinical Policy Approval Committee, the ACC Cardiovascular Disease in Women Committee, the

ACC/American Heart Association (AHA) Task Force on Performance Measures, and the AHA Get with the Guidelines-Atrial Fibrillation Clinical Work Group. Dr. Russo is Board Certified by the American Board of Internal Medicine.

Catherine M. Rydell, CAE

Ms. Rydell is Executive Director and Chief Executive Officer of the American Academy of Neurology. She is a member and past chair of the Specialty Society CEO Coalition and serves as an ex officio member of the Neurology Residency Review Committee and the United Council of Neurologic Subspecialties. Prior to assuming her current role at the Academy, she was Executive Director of the North Dakota Medical Association after serving six terms as a State Representative in the North Dakota State Legislature. She was also the Director of Women's and Children's Services as well as Surgical Services for St. Alexius Medical Center, a tertiary care center in Bismarck, North Dakota. Ms. Rydell has served on numerous national, regional, and state boards and commissions including Robert Wood Johnson North Dakota Single Payer Study Commission, Blue Cross Blue Shield of North Dakota, American Medical Association CEO Advisory Committee, and Council of Medical Specialty Societies.

Thomas L. Schwenk, MD

Dr. Schwenk is a Professor of Family Medicine, Dean of the School of Medicine and Vice President of Health Sciences at the University of Nevada, Reno. As a former member of the American Board of Family Medicine Board of Directors, he served as chair of the committee that developed the current plan of a 10-year examination cycle for diplomates who remain current in their continuing certification activities and practice improvement modules. He was elected to the National Academy of Medicine in 2002. Dr. Schwenk is Board Certified by the American Board of Family Medicine and holds a Certificate of Added Qualification in Sports Medicine.

David A. Swankin, JD

Mr. Swankin is President and Chief Executive Officer of the Citizen Advocacy Center, a training and support program for public members on health professional licensing boards, voluntary certifying bodies, Medicare Quality Improvement Organizations, and other settings. Specializing in regulatory and administrative law, Mr. Swankin has a background in both government and public interest advocacy, including assignments in the White House and the U.S. Department of Labor. He has also served as a public member on major national certification, accreditation and advisory bodies including the Accreditation Council for Continuing Medical Education, the PEW Health Professions Commission that wrote "Recreating Health Professional Practice for a New Century,"

and the Institute of Medicine Committee that published the report “Health Professions Education: A Bridge to Quality.”

George D. Wendel Jr., MD

Dr. Wendel is the Executive Director of the American Board of Obstetrics and Gynecology (ABOG). Additionally, he has a clinical appointment at the University of Texas Southwestern Medical School and serves on the Medical Staff at Parkland Memorial Hospital. Dr. Wendel previously served as the Director of Maintenance of Certification at ABOG from 2012 through 2017. He also served as the OB GYN Residency Review Committee Chair and on the Accreditation Council for Graduate Medical Education Board of Directors. Dr. Wendel is Board Certified by the American Board of Obstetrics and Gynecology.