

Testimony of Stephen Avery, Ph.D., FAAPM.  
House Bill 1344  
House Committee on Professional Licensure  
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Good afternoon, Chairman Mustio, Chairman Readshaw and members of the committee. I am Stephen Avery, I am an Associate Professor of Radiation Oncology at the University of Pennsylvania where I served as the director of the Masters of Medical Physics program from 2010 to 2015. I was also a member of the committee for the Commission on Accreditation of Medical Physics Educational Programs (CAMPEP) from 2010 to 2017. Currently, I am a fellow of the American Association of Physicists in Medicine (AAPM) and I am a member of the AAPM Board-At-Large.

I would like to thank the committee for allowing me to provide testimony regarding House Bill 1344, which would establish a State Board of Medical Physicists and establish qualifications for licensure, including testing requirements. The purpose of this testimony will be to outline the educational and clinical steps to becoming a Qualified Medical Physicist. It is critically important that medical physicists are held to a high and uniform standard to ensure safe, effective and high quality care for patients.

The educational process to prepare a student to become a qualified medical physicist (QMP), i.e. certified by the American Board of Radiology (ABR), may follow multiple routes. A candidate may receive a Master of Science or a Ph.D. degree in medical physics from a CAMPEP accredited program, then successfully complete a CAMPEP accredited medical physics residency. Alternatively, a candidate can obtain a Ph.D. in a related field, such as physics or engineering and then complete a CAMPEP accredited post-graduate certificate program, before entering a CAMPEP accredited medical physics residency. Lastly, a candidate can complete a CAMPEP accredited Doctorate of Medical Physics (DMP), a four-year program which combines Master of Science degree coursework and a medical physics residency. Next comes the ABR exam, a three-part test covering general and clinical topics; diagnostic, therapeutic, and nuclear medical physics; and an oral component.

The Master of Medical Physics program at the University of Pennsylvania is geared toward achieving consistency with the guidelines published in AAPM Report 90 and to exceed CAMPEP requirements for this type of program. Reaching these goals will assure incoming students of a relevant, comprehensive, and satisfying educational experience and position them well on their way to a successful career in medical physics.

During the program, students become familiar with the major physics activities for radiation oncology and imaging, undertaken in an NCI-designated comprehensive academic cancer center. Program faculty take their on-going professional development seriously, providing role models for the students particularly in regard to life-long learning. In addition, Radiation Oncology clinical staff and medical physics residents help guide and serve as role models for the medical physics students.

Currently, there is no universal metric by which to gauge the knowledge and qualifications of candidates for hire in this industry. Implementing a licensure process like the one outlined in House Bill 1344 would provide this metric and therefore improve the ability to evaluate potential hires, allow qualified candidates to market themselves, and most importantly, improve quality of care for patients.

I thank the committee for allowing me to testify today and for taking the time to evaluate this important topic. I am happy to answer any questions the committee members may have.