REPORT OF THE COUNCIL ON MEDICAL EDUCATION

CME Report 2-I-18

	Subject:	Review of AMA Educational Offerings		
	Presented by:	Carol Berkowitz, MD, Chair		
1	INTRODUCTIO	DN		
2 3		Medical Education has been gratified to observe our American Medical		
4 5 6 7	high-quality edu	(MA) committed investment in and focus on the development and provision of acational resources and initiatives for physicians and physicians in training, and is le to highlight these to members of the House of Delegates (HOD).		
7 8 9	THE EARLY Y	EARS: THE AMA'S COUNCIL ON MEDICAL EDUCATION		
9 10 11 12 13 14	Our AMA's commitment to medical education dates to the founding of the Association in 184 when one of its first acts was to appoint a body known as the Committee on Medical Education The Committee on Medical Education was transformed into the Council on Medical Education 1904; an addition to AMA bylaws in that year noted that:			
15	The functions of the Council on Medical Education shall be:			
16 17 18		nake an annual report to the House of Delegates on the existing conditions of lical education in the United States.		
19 20		nake suggestions as to the means and methods by which the American Medical ociation may best influence favorably medical education.		
21 22 23		act as the agent of the American Medical Association (under instructions from the use of Delegates) in its efforts to elevate medical education. ¹		
24 25 26 27	recommending (Incil published its first set of educational standards for medical schools, (1) that medical schools require preliminary education sufficient to enable the er a recognized university; (2) a 5-year medical course; and (3) a sixth year as an pital. ²		
28 29 30 31	In 1906, the Council, tasked with rating U.S. medical schools, surveyed 160 schools regarding the performance of graduates on state licensure examinations. Schools were graded as acceptable, doubtful, or non-acceptable based on a set of ten defined qualifications. Only 82 schools received			
32 33 34 35		rating. This led to the Council's 1909 partnership with the Carnegie Foundation on nedical schools; the results of this study were published in 1910 in the Flexner		
36 37 38 39	has been involve organizations the	g years, our AMA, through the Council on Medical Education and other groups, ed in the establishment of many of the leading U.S. medical education at exist today and with the development of multiple educational innovations. These d innovations are summarized in Appendix A.		

EXPANDING OUR AMA'S EDUCATION DEVELOPMENT AND DELIVERY 1 2 CAPABILITIES

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Our AMA has recently dedicated additional resources and staff to its educational initiatives, and as a result, numerous innovations are being developed.

5 6 7

Content

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9 In-house instructional design capabilities have been enhanced, and measures have been taken to 10 ensure educational content incorporates learning trends that engage adult learners. Additionally, 11 our AMA has developed a library of templated eLearning interactions, which can be leveraged 12 across the organization in content development efforts. A robust quality rubric has been 13 implemented to guide the planning, development, and evaluation of education. The rubric helps to ensure that education is well-designed and likely to result in achieving the desired learning 14 15 outcomes. Finally, the assessment creation process has been improved to better evaluate mastery of 16 learning objectives.

17 18 Platform

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20 Our AMA plans to launch a unified education delivery platform known as the AMA Ed Hub[™].

The AMA Ed HubTM will bring together our AMA's diverse educational offerings under a unified 21

umbrella, including <u>JN LearningTM</u>; the <u>GME Competency Education Program</u> (GCEP); e-learning 22

23 modules that support our AMA's Health Systems Science (HSS) textbook; interactive micro-

learning modules based on our AMA's modernized Code of Medical Ethics; the STEPS ForwardTM 24 practice transformation series; and curricula related to pain management, firearm safety, and other 25

26 topics.

27

28 The platform will blend innovations in content, technology, and user experience to deliver

29 increasingly more personalized and compelling virtual learning experiences to meet individual

30 needs and preferences. Additionally, it will feature trusted education in engaging and multi-

31 dimensional formats to satisfy a variety of preferences (audio, interactive, journal, and video). The

32 platform is designed to facilitate easy discovery of relevant education. All content is standardized, 33 tagged, and enriched in a way that allows our AMA to actively engage learners by offering content across many channels, sites, apps, and products.

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36 OUR AMA'S EDUCATIONAL INITIATIVES AND RESOURCES

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38 Our AMA is also proactively seeking cooperation between business units to mine additional 39 educational content, more effectively leverage subject matter expertise across products, and expand 40 target audiences. For example, authors of the HSS textbook have extended their contributions 41 beyond medical school to residency by contributing to the development of GME Competency Education Program educational modules. Also, education regarding physician burnout has been 42

43 repackaged to focus on burnout at the resident physician level.

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45 Accelerating Change in Medical Education Consortium innovations

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47 Our AMA's Accelerating Change in Medical Education initiative, launched in 2013, has fostered a

culture of medical education advancement, leading to the development and scaling of innovations 48

49 at the undergraduate medical education level across the country. After awarding initial grants to 11

50 U.S. medical schools, the AMA convened these schools to form the Accelerating Change in

Medical Education Consortium—an unprecedented collective that facilitated the development and 51

1 communication of groundbreaking ideas and projects. The AMA awarded grants to an additional 2 21 schools in 2016. Today, almost one-fifth of all U.S. allopathic and osteopathic medical schools 3 are represented in the 32-member consortium, which is delivering revolutionary educational 4 experiences to approximately 19,000 medical students—students who one day will provide care to 5 a potential 33 million patients annually. 6 7 A summary of innovations resulting from the Consortium can be found in Appendix B. 8 Additionally, a comprehensive, annotated bibliography of publications based on the work of the 9 Consortium has been published and is available for review.⁴ 10 11 Innovative Educational Formats in the JAMA Network 12 The JN ListenTM app provides learners with convenient access to engaging podcasts based on peer-13 reviewed articles published in JAMA. Learners can listen to content they select and earn CME, all 14 15 via the mobile app. 16 STEPS ForwardTM 17 18 19 The AMA STEPS Forward[™] practice transformation series is an online educational product 20 designed to offer innovative strategies that assist physicians in the new health care environment. Leveraging findings from an AMA-RAND study,⁵ the online modules provide clinicians and 21 22 practice managers with the data, tools, education, and certification needed to be successful in a value-based payment environment. Learners can take courses about patient care, workflow and 23 process, and professional well-being, among other topics. All STEPS ForwardTM modules are 24 25 Centers for Medicare & Medicaid Services-approved Clinical Practice Improvement Activities; by 26 completing these modules, physicians can demonstrate compliance with Merit-Based Incentive 27 Payment System requirements. 28 29 Recently, each of the 48 available modules' learning objectives and assessments were revised to 30 ensure that learner expectations and outcomes are aligned. Content is currently being converted to a 31 standardized format for multichannel publication. 32 33 **GME** Competency Education Program 34 35 The AMA GME Competency Education Program (GCEP) comprises a series of online educational modules designed to complement teaching in patient settings and didactic curricula in residency 36 37 and fellowship programs. The program helps residents and their institutions meet core competency requirements. In 2018, GCEP was selected as a Gold winner in the 2018 Digital Health Awards, 38 39 which recognizes high-quality digital health resources for health professionals. 40 41 Over the past year, the 33-module GCEP library has been upgraded to add animation, case vignettes, and mock simulations to help residents visualize how the content is applicable to their 42 43 daily practice. The final eight modules are currently being enhanced, including content on quality 44 improvement practices, promoting medication adherence, navigating a lawsuit, and creating an effective and respectful learning environment, among other topics. Personalized instruction has 45 46 been incorporated, as well as guided learning using relatable mentor characters. 47 48 Health Systems Science 49 50 In addition to basic and clinical sciences, recognition is growing that physicians also need to know

51 HSS, understanding how care is delivered, how patients receive that care, and how systems

1 function to improve health. By the end of 2018, the AMA plans to have completed six e-learning 2 modules for medical students that complement the HSS textbook, with the goal of providing a 3 cohesive introduction to HSS. While the initial target audience is medical students, faculty 4 development components will be included. Eventually, a parallel learning strategy for faculty and 5 residents is also envisioned. Current modules in development include systems thinking, patient 6 safety, and population health. 7 8 **Ethics** 9 10 In 2017, our AMA adopted the modernized Code of Medical Ethics,⁶ and new, interactive microlearning modules have been created around key *Code* opinions. In 2018, the AMA has been 11 12 developing new modules on privacy and confidentiality, surrogates, and physicians as leaders. 13 14 Health Equity 15 To support the work stemming from our AMA's newly adopted policy related to health equity,⁷ a 16 new module has been launched titled Collecting Patient Data: Improving Health Equity in Your 17 18 Practice. 19 20 The AMA Physician's Recognition Award and Credit System 21 22 The AMA Physician's Recognition Award (PRA), established by the HOD in December 1968 and 23 celebrating its 50th anniversary in 2018, recognizes physicians who, by participating in CME 24 activities, have demonstrated their commitment to staying current with advances in medicine. The AMA PRA credit system was developed to describe CME activities with sufficient educational 25 26 value that could be counted towards the requirements to obtain the PRA. AMA PRA credit is the 27 most widely accepted CME credit used by physicians of all specialties to document CME 28 participation for licensing boards, certification boards, hospital credentialing committees, insurance 29 groups, and other organizations. 30 31 The AMA PRA credit system has continued to respond to the needs of physicians and to changes in 32 the practice of medicine. Recognizing that physicians learn in different ways and that a variety of educational formats should be recognized for credit, the Council on Medical Education has 33 34 approved new educational formats for AMA PRA Category 1 CreditTM over the years in addition to 35 the original formats of live certified activities and enduring materials. Subsequently approved 36 formats include Journal-Based CME (1998), Manuscript Review (2003), Test Item Writing (2003), 37 Performance Improvement CME (2004), and Internet Point-of-Care (2005). Most recently, in 2017, 38 the Council on Medical Education approved a format of "Other" for those activities that meet core 39 requirements but do not fall within one of the already existing formats. 40 41 The AMA PRA credit system also operates beyond U.S. borders. In 1990, the HOD adopted a Council on Medical Education report to establish a process for qualified international conferences 42 43 to offer AMA PRA Category 1 CreditTM to attendees. The International Conference Recognition Program continues to this day, and international opportunities to earn AMA PRA Category 1 44 45 *Credit*TM have expanded to include activities covered by agreements between the AMA and the credit systems of other regions and nations. Three agreements currently exist, with the European 46

47 Union of Medical Specialists, the Royal College of Physicians and Surgeons of Canada, and the

48 Qatar Council for Healthcare Practitioners.

1 Section/Council Educational Sessions 2 3 Since 2014, AMA sections and/or councils have produced approximately 120 educational sessions 4 at the Annual and Interim meetings (15 sessions per meeting, on average), in addition to various 5 other activities provided throughout the years. Nationally renowned experts, including many AMA 6 members, have educated on important and timely topics, such as physician burnout, the opioid 7 epidemic, firearm safety, value-based care, physician leadership, and innovation. 8 9 Collaboration with External Organizations 10 11 Our AMA continues to work to lessen the administrative burden for physicians by simplifying and 12 streamlining the automatic tracking and reporting of credit to support certification and licensure 13 needs. Currently, our AMA partners with the ACCME and ABIM to report completed JAMA Network CME activities on behalf of physicians certified by the ABIM. The AMA will extend 14 15 these reporting capabilities to include all AMA educational activities and additional ABMS member boards in 2019. Finally, a pilot is being planned with the ACCME and Board of Medical 16 17 Examiners in Tennessee to report completed activities on behalf of physicians licensed in 18 Tennessee. 19 20 Our AMA has also been approved as an ABMS Multi-Specialty Portfolio Program sponsor and has 21 developed CME programs that are eligible for continuing certification (MOC Part IV) credit. 22 23 Future Innovations 24 25 Additional planned innovations will focus on educational features and apps that offer innovation in 26 the education space. Currently, our AMA is: 27 28 Leveraging augmented intelligence to power learning experiences; • 29 Taking new approaches to documenting meaningful involvement in performance • 30 improvement; and Considering different types of assessment, which could expand the content for which credit 31 • 32 can be offered. 33 Finally, our AMA is also exploring the potential of the AMA Ed HubTM platform to be of service to 34 35 other educational providers. 36 37 **SUMMARY** 38 39 For 150 years, our AMA has demonstrated a commitment to developing and supporting 40 advancements in medical education, both autonomously and in partnership with others. From the 41 Council on Medical Education's contributions to the Flexner Report, to the groundbreaking Accelerating Change in Medical Education Consortium, to newly enhanced e-learning content 42 43 design and delivery, our AMA is well positioned to lead medical education innovations into the

44 next century.

APPENDIX A: THE AMA'S INFLUENCE IN ESTABLISHING MANY LEADING U.S. MEDICAL EDUCATION ORGANIZATIONS AND DEVELOPING EDUCATIONAL INNOVATIONS

- 1847 The American Medical Association is organized and the Committee on Medical Education is formed.
- 1904 The AMA transforms the Committee on Medical Education into the Council on Medical Education (Council).
- 1905 The Council publishes its first set of educational standards for medical schools.
- 1906 The Council performs its first inspection of medical schools.
- 1910 The Council's partnership with the Carnegie Foundation leads to the publication of the Flexner Report.
- 1912 The Council fields its first survey of hospitals for the training of interns.
- 1919 The Council establishes the "Essentials" for approved Internships.
- 1920 The Council organizes 15 committees to study and "recommend what preparation was deemed essential to secure expertness in each of the specialties"; these committees represent the forerunners of today's boards.
- 1927 The Council begins approval of residency programs in hospitals.
- 1928 The Council establishes "Essentials" for registered hospitals and for approved residencies and fellowships.
- 1934 The Council approves examining boards for the certification of specialists and establishes standards for the formation of American boards in the specialties.
- 1939 The Council, with the American Board of Internal Medicine (ABIM) and American College of Physicians (ACP), forms the Conference Committee on Graduate Training in Internal Medicine, later to become the Residency Review Committee for Internal Medicine; other specialty boards soon request their own committees.
- 1942 At the request of the Council, the AMA Board of Trustees and the Association of American Medical Colleges (AAMC) form the Liaison Committee on Medical Education (LCME).
- 1948 The Council and the Advisory Board for Medical Specialties establish the Liaison Committee for Specialty Boards.
- 1950 The Council establishes the Conference Committee on Graduate Training in Surgery.
- 1954 With representation from the Council, the AAMC, the American Hospital Association (AHA), and the Federation of State Medical Boards (FSMB), an Internship Review Committee is established to review the reports of surveys of intern training programs made by members of the Council's field staff.

1955	Based on work performed by the Council, the "Publication of Postgraduate Medical Education in the United States: A Report of the Survey of Postgraduate Medical Education Carried Out by the Council on Medical Education and Hospitals" is published.
1957	A guide on postgraduate medical education (continuing medical education) is issued.
1957	With the AHA, AAMC, and FSMB, the Council sponsors the organization of the Educational Commission for Foreign Medical Graduates (ECFMG).
1962	The AMA completes the first accreditation survey of continuing medical education (CME) sponsors; the lists of accredited sponsors are published in <i>JAMA</i> .
1967	The Advisory Committee on Continuing Medical Education, of the AMA House of Delegates, develops a nationwide accreditation system for CME providers.
1968	The AMA establishes the AMA Physician's Recognition Award (PRA) to recognize physicians who earn at least an average of 50 credits per year from educational activities that meet AMA standards and the AMA PRA CME credit system.
1970	The Advisory Board for Medical Specialties is reorganized as the American Board of Medical Specialties (ABMS).
1971	The Council establishes the Liaison Committee on Graduate Medical Education, which later becomes the Accreditation Council for Graduate Medical Education (ACGME).
1977	The Council establishes the Liaison Committee on Continuing Medical Education (LCCME).
1981	The AMA, with the AAMC, AHA, FSMB, ABMS, Association for Hospital Medical Education, and Council of Medical Specialty Societies, creates the Accreditation Council for Continuing Medical Education (ACCME) as successor to the LCCME for the accreditation of CME sponsors.
1982	CME Report B, Recommendations for "Future Directions for Medical Education," is adopted by the AMA House of Delegates.
1987	CME Report C, "Resident Working Hours and Supervision," is adopted by the AMA House of Delegates.
1991	The AMA's Fellowship and Residency Electronic Interactive Data Access (FREIDA) System is established.
1996	The Council on Medical Education approves AMA PRA Category 1 Credit TM for reading journal articles.
1996	AMA FREIDA becomes AMA FREIDA Online®.

2000	The Council approves its first international agreement for the conversion of CME credits, providing physicians the opportunity to receive <i>AMA PRA Category 1 Credit</i> TM for attending European Union of Medical Specialists educational activities certified for credit. Other agreements would follow.
2002	CME Report 9, "Resident Physician Working Conditions," is adopted by the AMA House of Delegates.
2003	The Council on Medical Education approves <i>AMA PRA Category 1 Credit</i> TM for test item writing and manuscript review learning formats.
2004	The Council on Medical Education approves <i>AMA PRA Category 1 Credit</i> TM for Performance Improvement CME (PI CME) learning format.
2005	The Council on Medical Education approves <i>AMA PRA Category 1 Credit</i> TM for Internet Point of Care learning format.
2005	The AMA embarks on its Initiative to Transform Medical Education (ITME).
2006	The Alliance for CME awards the AMA the Frances M. Maitland PACME Award for "significant contribution to the field of CME and the future of the profession."
2006	The AMA trademarks the phrase AMA PRA Category 1 Credit TM .
2006	Phase 2 of ITME begins, resulting in recommendations for change across the continuum to address identified gaps in medical education.
2007	Phase 3 of ITME begins with a working conference on Optimizing the Medical Education Learning Environment.
2008	Phase 3 of ITME continues with a conference in collaboration with the American Academy of Pediatrics on Physician Reentry into Practice.
2009	The AMA and Association of American Medical Colleges hold ITME Conference on Increasing Attention to Behavioral Competencies in the Admissions Process.
2010	The AMA and AAMC co-sponsor an invitational conference, "New Horizons in Medical Education: A Second Century of Achievement."
2011	The AMA Innovative Strategies for Transforming the Education of Physicians (ISTEP) research collaborative begins the second stage of its study of the medical education learning environment.
2012	The AMA announces a new strategic plan to focus on Accelerating Change in Medical Education as one of its three main focus areas.
2012	The AMA and AAMC sign a formal agreement that outlines their joint, ongoing commitment to supporting the medical education accreditation process.

- 2013 The AMA announces grant funding for medical school innovations and awards \$11 million to 11 medical schools nationwide as part of its Accelerating Change in Medical Education initiative.
- 2013 The AMA PRA recognizes teaching students and residents as an AMA PRA Category 1 CreditTM activity.
- 2013 The AMA launches its Save GME grassroots campaign (saveGME.org) to urge Congress to preserve GME funding and lift the federal cap on residency slots.
- 2014 The AMA is among the four signers of a formal agreement between the LCME and the Committee on Accreditation of Canadian Medical Schools (CACMS) to ensure medical school graduates in both the United States and Canada meet their respective countries' standards and are prepared for the next phase of their medical training.
- 2014 The Council on Medical Education convenes a conference with the ABMS and its member boards to discuss ways to improve Maintenance of Certification and make the process more meaningful for physicians.
- 2015 The AMA awards grants to an additional 21 medical schools as a part of the Accelerating Change in Medical Education Consortium, further expanding this community of learning.
- 2018 The Council on Medical Education co-convenes a second conference with the ABMS and its member boards to discuss the future of continuing certification.

INNOVATION FOCUS	SUMMARY	PUBLICATIONS AND OUTCOMES
Developing flexible, competency-based pathways	Medical education at all levels is shifting away from emphasizing time spent in lectures and classrooms and toward establishing that the necessary knowledge and skills have been acquired. Medical schools are incorporating milestones and entrustable professional activities (EPAs) into the curriculum to determine the best path for students to follow in order to move to the next level of training.	Generalizing Competency Assessment Scores Across and Within Clerkships ⁹ Finding a Path to Entrustment in Undergraduate Medical Education ¹⁰ Constructing a Shared Mental Model for Faculty Development in CEPAER ¹¹
	These flexible, competency-based pathways create physicians who are comfortable assessing their abilities and addressing any deficiencies throughout their careers.	
Teaching new content in Health Systems Science	To fully serve patients, physicians must know more than biomedical and clinical sciences. The new discipline of health systems science includes understanding how to improve health care quality, increase value, enhance patient safety, deliver population-based care, and work collaboratively in teams. Physicians need to learn how to advocate for their patients and communities and understand the socio- ecological determinants of health,	Health Systems Science ¹² Investigate the Barriers to Integrating Health Systems Science in Medical Education ¹³ Science of Health Care Delivery Milestones for Undergraduate Medical Education ¹⁴
Working with health care delivery systems in novel	health care policy, and health care economics. Consortium schools are creating new learning experiences embedded within health care systems.	How Can Medical Students Add Value? Identifying Roles, Barriers, and Strategies to Advance the Value of
ways	Training students to be patient navigators, to plan and execute quality improvement projects, and to perform important functions that benefit patient- centered teams serve dual purposes. Students learn about health care delivery by working in authentic settings and are able to contribute to	Advance the Value of Undergraduate Medical Education to Patient Care and the Health System. ¹⁵ Socially Accountable Medical Education: An Innovative Approach at Florida International University

APPENDIX B: SUMMARY OF CONSORTIUM INNOVATIONS IN MEDICAL EDUCATION⁸

	improving the health of patients in meaningful ways.	Herbert Wertheim College of Medicine ¹⁶ Value-Added Clinical Systems Learning Roles for Medical Students That Transform Education and Health: A Guide for Building Partnerships Between Medical Scheedbard Health Sectore 17
Making technology work for learning	Consortium schools are adapting technology in new ways to solve key problems and advance physician training. They are teaching the use of EHRs, management of patient panels to improve health outcomes, and interpretation of big data.	Schools and Health Systems ¹⁷ Regenstrief EHR Clinical Learning Platform ¹⁸ Barriers to Medical Students' Electronic Health Record Access Can Impede Their Preparedness for Practice. ¹⁹
	In addition, schools are applying learning technology to manage individualized, flexible progress by assessing student competencies along their medical education journey. New tools are being used to compile assessment data that will allow for easier self-assessment by students and review with faculty coaches.	NYU Langone Health: Healthcare by the Numbers: Populations, Systems, and Clinically Integrated Data ²⁰
Envisioning the master adaptive learner	Physicians need to rapidly access and interpret continuously evolving information and to understand how the use of new data supports the delivery of the best patient care.	Fostering the Development of Master Adaptive Learners: A Conceptual Model to Guide Skill Acquisition in Medical Education. ²¹
	One of the aims of the consortium is to assist physicians in becoming master adaptive learners—expert, self- directed, self-regulated and lifelong workplace learners.	Mission Control: The Gamification of Medical Learning ²²
Shaping tomorrow's leaders	Future physicians will need to do more than deliver high-quality care. To be effective in the health care system of tomorrow, they will need to possess the ability to lead teams and participate in positive change. Consortium schools are integrating leadership and teamwork training into curricula that will prepare today's medical students to become future leaders.	Shifting the Curve: Fostering Academic Success in a Diverse Student Body ²³ Medical Student Perceptions of the Learning Environment: Learning Communities Are Associated With a More Positive Learning Environment in a Multi- Institutional Medical School Study ²⁴

Universal outcomes		Coaching Handbook ²⁵
		Curricular Transformation: The Case Against Global Change ²⁶
		Why Not Wait? Eight Institutions Share Their Experiences Moving United States Medical Licensing Examination Step 1 After Core Clinical Clerkships. ²⁷
		Turn Med Ed on its Head: Medical Education Innovation Challenge. ²⁸
Creating an online community	Participants in this online community are discussing developments and innovations in medical education, including the work emerging from the AMA's Accelerating Change in Medical Education Consortium, as part of the AMA's work to create the medical schools of the future. Webinars educate and connect participants and help spread innovations nationally.	Implementing a Teaching EHR as a Clinical Learning Platform ²⁹
		Transforming Education: Leading Innovations in Health Professions Education ³⁰
		Using Big Data to Teach Population Health ³¹
		Health Systems Science: The Third Pillar of Medical Education ³²
		Interprofessional Education: Using Technology to Teach Team-Based Care ³³
		To Medical Student Wellness and Beyond: Creating a Healthy Culture for All ³⁴
		Leadership Training: Developing the Next Generation of Physician Leaders
		Portfolios and Dashboards: Leveraging Data for Student Success

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