Reimagining Residency: An Initiative to Transform GME Through Collaborative Innovation

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Residency is an exciting time in medical education. However, despite its critical role in training and professional identity formation, graduate medical education (GME) presents many challenges. The transition from medical school to residency is discontinuous and doesn't seamlessly build upon knowledge and skills acquired to that point. Balancing responsibility for one's education with the demands of delivering clinical service during residency is stressful and can compromise learner well-being. And although residency training confers significant technical expertise, there is concern that mastery of the systems issues necessary for independent practice can lag, making the transition to practice difficult.[1] Effectively addressing these challenges is a path to improving GME.

In 2019, the American Medical Association (AMA) established the Reimagining Residency (RR) initiative to transform residency training through bold innovation that addresses these issues. The initiative built on the success of the 2013 Accelerating Change in Medical Education model.[2] That program provided grants to each of 11 medical schools to pursue their innovation ideas in undergraduate medical education (UME). As a part of their participation in the initiative, those schools joined one another in a consortium, meeting regularly to share ideas, collaborate over novel approaches to common challenges, and work together to address them. Many participants felt that this community of innovation was a more valuable outcome of the initiative than the results of the projects themselves. RR adopted a similar approach, administering large grants to entities to support their innovation work accompanied by membership in the Accelerating Change in Medical Education Consortium. With input from a national advisory panel, the AMA drafted the following ambitious goals for the initiative: to smooth the discontinuous transition from UME to GME, to better prepare residents for independent practice in our current and future health care system, and to support well-being in the learning environment for trainees and all those who work with them.

In response to a request for proposals, the AMA received 252 letters of intent from institutions with responsibility for GME. From those, we invited 33 full submissions and ultimately funded eleven 5-year $1.8 million grants (see TABLE) to "transform residency training to best address the workplace needs of our current and future health care system."[3] Since 2019, the AMA has invested over $20 million in the RR initiative between support to the projects, staffing the work, travel for site visits, and convening the members of the consortium around collective goals and achievements.

During the term of the initiative, these 11 ambitious projects have advanced their individual goals in support of a collective vision. Their leaders have come together on a biannual basis to discuss the projects, collaborate over their work, and to address common challenges in support of a collective vision to improve GME. The principal investigators have participated in monthly calls to maintain momentum and to encourage collaboration. In addition, evaluators from each project came together in a group to cooperatively develop approaches to assessing their own projects as well as the initiative as a whole. These collaborative forums and opportunities have built a community of practice that has generated innovative approaches that would not have otherwise occurred, a valuable and satisfying outcome of RR.

As the work of the RR projects has evolved over the last 5 to 6 years, in addition to addressing the overarching goals of the initiative, the projects have aligned around 5 broad topic areas.

Competency-Based Medical Education

Medical education leaders recognize the responsibility of our profession to better understand the evolving competency of our learners and to act upon that knowledge to tailor experiences to the developmental needs of trainees. Two of the RR projects focus on this important area. At Mass General Brigham, the

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TABLE
Reimagining Residency Grant Projects

Title	Institution(s)	Principal Investigator
Transforming the UME to GME Transition for Obstetrics and Gynecology: "Right Resident, Right Program, Ready Day One"	Association of Professors of Gynecology and Obstetrics	Maya M. Hammoud, MD, MBA
California Oregon Medical Partnership to Address Disparities in Rural Education and Health (COMPADRE)	Oregon Health & Science University University of California, Davis	Tonya L. Fancher, MD, MPH
Fully Integrated Readiness for Service Training (FIRST): Enhancing the Continuum from Medical School to Residency to Practice	University of North Carolina School of Medicine	Catherine L. Coe, MD
The Graduate Medical Training "Laboratory": An Innovative Program to Generate, Implement, and Evaluate Interventions to Improve Resident Burnout and Clinical Skill	Johns Hopkins University School of Medicine Stanford University School of Medicine University of Alabama at Birmingham School of Medicine	Gail Berkenblit, MD, PhD
NYU Transition to Residency Advantage (TRA)	NYU Grossman School of Medicine	Abigail Ford Winkel, MD, MHPE
Reimagining Residency: Ensuring Readiness for Practice Through Growing Interprofessional Partnerships to Advance Care and Education (iPACE)	MaineHealth Maine Medical Center	Sarah Hallen, MD
Residency Training to Effectively Address Social Determinants of Health: Applying a Curricular Framework Across Four Primary Care Specialties	Montefiore Health System	Catherine C. Skae, MD
Promotion in Place: Enhancing Trainee Well-Being and Patient Care Through Time-Variable Graduate Medical Education	Mass General Brigham Health Care System	John Patrick T. Co, MD, MPH, MBA
The GOL^{2}D Project (Goals of Life and Learning Delineated): Collaboration Across Academic Health Systems to Better Align GME with Learner, Patient, and Societal Needs	Vanderbilt University Medical Center University of Mississippi Medical Center	Kyla Terhune, MD, MBA
Developing Residents as Systems Citizens: The Systems-Based Practice Competency for the 21st Century Healthcare System	Pennsylvania State College of Medicine Kaiser Permanente Geisinger Health System Allegheny Health Network	Ami L. DeWaters, MD, MSc
Development of a Unified System of Assessment and Predictive Learning Analytics Utilizing Entrustable Professional Activities Across Emergency Medicine Residency Programs	Stanford University Emergency Medicine Residency Program Emergency Medicine Residency Program Evaluation and Assessment Consortium	Holly A. Caretta-Weyer, MD, MHPE

Abbreviations: UME, undergraduate medical education; GME, graduate medical education; NYU, New York University.

Promotion in Place project explores the feasibility of advancing trainees from residency to independent practice based upon rigorous assessment of competency rather than time in training.[4] A collaborative effort through the Council of Residency Directors in Emergency Medicine, and coordinated by Stanford University, is developing a system of entrustable professional activities and observable practice activities that can be used to guide individual professional development through learning analytics.[5] These projects highlight the critical role of assessment in competency-based medical education and thus facilitate the developmental trajectory toward competence.

Transitions From UME to GME

Investigators at New York University (NYU) Grossman School of Medicine and NYU Langone Hospital are building on their experience with coaching in UME to train a cadre of GME Bridge Coaches who engage with trainees entering their residency programs to build on their UME experience as they enter the next phase of their training.[6] The Association of Professors of Gynecology and Obstetrics have aligned behind standards and reforms to the residency selection process to improve the transition from UME to GME.[7] Both projects aim to smooth

the transition from UME to GME and provide a more seamless path to professional development.

Learning Environment

A cooperative project between Vanderbilt University Medical Center and the University of Mississippi Medical Center looks at paths to professional identity formation during residency training that are independent of specialty. This project recognizes that residents who wish to focus on research or on serving the underserved may share more common interests with trainees in other disciplines than they do with members of their own programs. They have created cross-disciplinary forums to pursue those career goals.[8] The Graduate Medical Training Laboratory, a collaboration between internal medicine programs at Johns Hopkins, University of Alabama-Birmingham, and Stanford University, has gathered more than 300 000 hours of data about exactly where residents spend their time (eg, at the bedside, in the workroom, etc). By correlating these data with measures of clinical skill and well-being, they will help to understand how aspects of the resident experience contribute to professional development and burnout.[9] These projects help to ensure that the GME environment supports progress in achieving both professional and personal goals.

Health Systems Science

Several projects are supporting the evolution of health systems science in GME. At MaineHealth Maine Medical Center, the iPACE model for interprofessional practice has been extended beyond an internal medicine unit to other specialties and other hospitals within their health care system. The model is demonstrating reduced lengths of stay, reduced costs, and increased patient satisfaction to a degree that it has been adopted as part of the health system's strategic plan going forward.[10] Montefiore Health System is developing a curriculum within its primary care residency programs to address social influences on health and working to increase agency in trainees and faculty to care for populations most affected by these influences.[11] Teams at Penn State University, Allegheny Health Network, Geisinger Health System, and Kaiser Permanente are collaborating to understand the characteristics of trainees and the learning environments in which they work that most influence the evolution of expertise in health systems science.[12] All of these efforts have the potential to increase the effectiveness of the care delivered by residents to patients and better prepare trainees for independent practice.

Workforce

Two ambitious projects, one at the University of North Carolina (FIRST) and the other a collaboration between University of California, Davis and the Oregon Health & Science University (COMPADRE), are examining how medical education can be tailored to influence the physician workforce and better meet population health care needs in their respective areas.[13,14] Both projects are engaging trainees early in medical school, some through accelerated programs, and then supporting their career development in primary care by providing training and mentorship in the communities they will go on to serve. These efforts address the critical question of how our educational system can be applied to ensure that we are training the right physicians to deliver the right care in specialties and communities identified to benefit from that service.

In addition to their individual project work, the teams engaged in RR have met with one another and collaborated over their shared interests. The projects themselves have been rewarding, but the generation of new ideas and approaches are an equally important positive outcome of the initiative. Innovation does not succeed in isolation. Ideas benefit from being shared, modified, and acted upon within a larger community to truly influence outcomes of our educational programs. This has been an important learning resulting from the establishment of this consortium of innovation teams. Those shared interests and collaboration are represented in the articles that follow.

This supplement contains some of the work of RR over the last 5 years. The articles published here document the successes, challenges, and learnings that have resulted from the 11 innovation projects. Rather than summarize each project in isolation, the leaders of these projects have cooperated with one another to demonstrate how their individual and collaborative efforts have addressed common challenges and achieved synergistic outcomes. We hope that these articles spur interest in the innovations they describe and stimulate further innovation. We invite you to reach out to the authors directly with your feedback and ideas for ongoing collaboration.

References

1. Miller KA, Nagler J, Wolff M, Schumacher DJ, Pusic MV. It takes a village: optimal graduate medical education requires a deliberately developmental organization. *Perspect Med Educ*. 2023;12(1):282-293. doi:10.5334/pme.936
2. Lomis KD, Santen SA, Dekhtyar M, et al. The accelerating change in medical education consortium:

key drivers of transformative change. *Acad Med*. 2021;96(7):979-988. doi:10.1097/ACM.0000000000003897

3. American Medical Association. AMA Reimagining Residency initiative. Accessed March 3, 2025. https://www.ama-assn.org/education/changemeded-initiative/ama-reimagining-residency-initiative
4. Goldhamer MEJ, Pusic MV, Nadel ES, Co JPT, Weinstein DF. Promotion in place: a model for competency-based, time-variable graduate medical education. *Acad Med*. 2024;99(5):518-523. doi:10.1097/ACM.0000000000005652
5. Caretta-Weyer HA, Park YS, Tekian A, Sebok-Syer SS. The inconspicuous learner handover: an exploratory study of U.S. emergency medicine program directors' perceptions of learner handovers from medical school to residency. *Teach Learn Med*. 2024;36(2):134-142. doi:10.1080/10401334.2023.2178438
6. Winkel AF, Porter B, Scheer MR, et al. Evaluating the impact of coaching through the transition to residency. *J Gen Intern Med*. Published online June 26, 2024. doi:10.1007/s11606-024-08865-w
7. Morgan HK, Banks E, Gressel GM, et al. Inequities at the transition to obstetrics and gynecology residency. *J Surg Educ*. 2024;81(7):905-911. doi:10.1016/j.jsurg.2024.04.005
8. Webber CJ, Hess JJ, Weaver E, et al. Welcome to Nashville, welcome to Jackson—reimagining residency orientation. *J Grad Med Educ*. 2024;16(4):411-414. doi:10.4300/JGME-D-24-00157.1
9. Garibaldi BT, Hollon MM, Woodworth GE, Winkel AF, Desai SV. Navigating the landscape of precision education: insights from on-the-ground initiatives. *Acad Med*. 2024;99(4 suppl 1):71-76. doi:10.1097/ACM.0000000000005606
10. Hallen S, Zelaya MI, White P, Varaklis K. Creating optimal clinical learning environments through interprofessional bedside rounding models: lessons from the iPACE story. *Acad Med*. 2024;99(12 suppl 1):28-34. doi:10.1097/ACM.0000000000005863
11. Hassan IF, Gorski V, Sanderson D, et al. Consensus on social determinants of health knowledge topics and behavior learning goals across primary care residencies: results of a Delphi study. *Acad Med*. 2023;98(8):941-948. doi:10.1097/ACM.0000000000005207
12. DeWaters AL, Miller EL, Haidet P, Gonzalo JD. Systems-based practice: expert perspectives on the origin and evolution of an ambiguous competency. *Acad Med*. 2024;99(4):424-429. doi:10.1097/ACM.0000000000005478
13. Santen SA, Yingling S, Hogan SO, et al. Are they prepared? Comparing intern milestone performance of accelerated 3-year and 4-year medical graduates. *Acad Med*. 2024;99(11):1267-1277. doi:10.1097/ACM.0000000000005855
14. Carney PA, Sebok-Syer SS, Pusic MV, Gillespie CC, Westervelt M, Goldhamer MEJ. Using learning analytics in clinical competency committees: increasing the impact of competency-based medical education. *Med Educ Online*. 2023;28(1):2178913. doi:10.1080/10872981.2023.2178913

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