Scholarship of Teaching and Learning in Health Professions Education: A Workshop

A workshop convened by: Global Forum on Innovation in Health Professional Education



October 23, 2024: 4:00pm – 6:00pm ET

October 24, 2024: 9:00am – 12:00pm ET

at: National Academies at Keck Center 500 Fifth St NW Washington, DC 200001

> NATIONAL ACADEMIES Sciences Engineering Medicine

Scholarship of Teaching and Learning in Health Professions Education: A Workshop

October 23-24, 2024

	1
	Page
Welcome Letter from Co-Chairs	3
SoTL Activities Infographic	4
Meeting Information	6
Workshop Agenda	7
Evidence Based Author Publications List	11
Workshop Roster	15
Workshop Biographical Sketches	18
The Global Forum on Innovation in HPE	29
NASEM Open Meeting Policy Statement	30

Briefing Book Contents



Dear Friends, Colleagues, and Distinguished Guests,

As the co-chairs of the planning committee, it is our great pleasure and honor to extend a warm and heartfelt welcome to our 2024 National Academies' workshop on The Scholarship of Teaching and Learning (SOTL) in Health Professions Education! We are thrilled to have you join us for what promises to be an engaging and enriching experience. We want to thank the volunteers that participated in our focus groups during our early planning stages and gave us a better understanding of how SOTL is currently used and viewed within different health profession disciplines.

Convened by the Global Forum on Innovation in Health Professions Education, this workshop is designed to foster collaboration, spark creativity, and enhance our collective knowledge on the value of SOTL and ways to innovate SOTL in health professions education (HPE). Throughout the workshop, you will have the chance to engage in hands-on activities, participate in discussions, and hear from esteemed thought leaders that we've brought together to elevate the critical value of HPE SOTL. We would like to especially thank the invited authors who submitted video presentations on their evidence-based research for sharing their time and subject matter expertise.

Whether you're here to learn, share insights, or network with fellow participants, we encourage you to take full advantage of the opportunities available. We believe that your unique perspectives will greatly contribute to achieving our shared goal of advancing health professional workforce development to ultimately improve patient outcomes. Please feel free to reach out to us or any of the Forum staff if you have questions or need assistance during the event. Thank you for being a participant in our HPE SOTL workshop and we look forward to an inspiring journey together!

Sincerely,

Kim Dunleavy

Kim Dunleavy PT, PhD, FNAP Clinical Professor and Director of Community Engagement University of Florida

Pamela Jeffries

Pamela Jeffries PhD, RN, FAAN, ANEF, FSSH Dean of Nursing Vanderbilt University

NATIONAL ACADEMIES Sciences Engineering Medicine Scholarship of Teaching and Learning in Health Professions Education: A Workshop | 3

Scholarship of Teaching and Learning in Health Professions Education: A Workshop



Objective

To elevate the critical value of health professional education (HPE) scholarship of teaching and learning (SOTL) and explore innovations and opportunities for advancing health professional workforce development across the education to practice continuum with the ultimate goal of improving patient outcomes.

HPE SoTL Workshop Activities

The ad-hoc workshop planning committee of The National Academies organize and conduct the following activities exploring evidence-based teaching and learning methods for new and innovative educational designs



Pre-Workshop



Focus Groups



Evidence-Based Research



2-Day Workshop



Methodology



Pre-Workshop

This event was held to review the history of, and terms used for SoTL. The planning committee led a roundtable discussion to consider how SoTL is applied in HPE and explore different priorities and perspectives. <u>Watch recording here.</u>

Focus Groups

Information gathering sessions were held to inform planning committee members the current SoTL landscape including individual and institutional perceptions, beliefs, and atittudes about SoTL within various health professions.

Evidence-Based

Authors were invited to demonstrate how SoTL has impacted health professions in six key areas: health professional education; clinical care/clinical learning environment; simulation; interprofessional education; faculty development; and promotion & tenure. Presentation collection in progress.

Workshop

Planning committee members and guest speakers will amplify the value of HPE SoTL and explore innovations in educational research frameworks and what is needed for the future of teaching practice in HPE. <u>Register for the 2-Day event here.</u>

Confidentiality

Information collected from focus group discussions are kept in the strictest of confidence and was made only available to the planning committee. Material that will be shared at the workshop have been deidentified and/or shared in aggregate. No names or affiliations will be included in any report.

NATIONAL ACADEMIES Sciences Engineering Medicine Scholarship of Teaching and Learning in Health Professions Education: A Workshop | 5

Meeting Information

Hybrid Workshop		
In-Person	Virtual	
<u>Keck Center</u>	Livestream on Project Webpage:	
500 Fifth St NW	https://www.nationalacademies.org/	
Washington, D.C. 20001	event/42801_10-2024_scholarship-	
Rooms: K100 & E-Street Collab	<u>of-teaching-and-learning-in-health-</u> <u>professions-education-a-workshop</u>	

Guidance for Virtual Attendees:

- We welcome your involvement in the workshop. Please join the public chat using Slido (located below the livestream) to ask questions.
- To watch the collection of Evidence-based research presentations from HPE SOTL subject matter experts, scroll down on the project webpage to the "Resources" Section.
- This workshop is being webcast and recorded. The webcast and copies of presentation slides will be archived on the webpage within 1-2 weeks.

Guidance for In-Person Attendees:

NASEM's top priority is the safety of our travelers and staff. Click <u>HERE</u> to review our operating status and protocols. NASEM remains committed to preventing the infection and spread of the COVID-19 virus. We encourage travelers to review the CDC guidance on masking and vaccinations. If you test positive for COVID-19, you should not enter any National Academies facility for at least 5 days. If after 5 days you are fever-free for 24 hours without the use of medication you may enter NASEM facilities. Masks are available at the registration table.

- Parking is available at Keck for in-person registrants. The building's garage entrance is located on 6th street between E and F streets. Overnight parking is prohibited.
- Day 1 and Day 2 of the workshop is held in Room K100 and E-Street Collaboration Room, respectively.

NATIONAL ACADEMIES Sciences Engineering Medicine



Scholarship of Teaching and Learning (SOTL) in Health Professions Education (HPE) Workshop Agenda

Wednesday, October 23, 2024 in Keck 100

4:00 pm

Introductory Session

Welcome Remarks Zohray Talib *Co-chair of Global Forum on Innovation in Health Professional Education*

Framing the Workshop Objectives Pamela Jeffries *Planning Committee Co-Chair*

Background & Focus Group Efforts

Kim Dunleavy Planning Committee Co-Chair

Loretta Nunez American Speech-Language-Hearing Association

4:30 pm The Value of Scholarship of Teaching and Learning in Health Professions Education (HPE SOTL) Moderator: Gail Jensen Creighton University

H. Carrie Chen (Virtual) Kaiser Permanente Bernard J. Tyson School of Medicine

Audience Q&A

5:15 pm Synchronous & Asynchronous Activity: Instructions Moderator: Grace Huang Harvard Medical School



Sciences Engineering Medicine Scholarship of Teaching and Learning in Health Professions Education: A Workshop | 7

In-Person Attendees - remain in room to participate in table discussions.

Virtual Attendees - watch the <u>Evidence Based Videos</u> from SOTL subject matter experts and respond (in the survey link) to the questions noted below. Return to the webcast tomorrow at 9amET.

5:20 pm Tables A-F Discussions Led by Global Forum Members

Table A: Lynette Hamlin, *Uniformed Services University* Table B: Carole Tucker, *American Council of Academic Physical Therapy*

- a) What are the elements related to HPE SOTL that are critical and make it unique?
- b) How do we connect HPE SOTL from classroom to clinic?

Table C: Ryan Scilla, Veterans Administration, Office of Academic Affairs

Table D: Zohray Talib, California University of Science and Medicine

- c) What strategies would you use to bring HPE SOTL value back to your profession and/or across health professions?
- d) How do you advocate for implementation of SOTL innovation?

Table E: Mark Merrick, *Athletic Training Strategic Alliance* Table F: Lyuba Konopasek, *Intealth*

- e) How do we promote HPE SOTL as part of professional identities?
- f) How do you expand HPE SOTL training within and across health professions?

5:55 pm Pamela Jeffries Planning Committee Co-chair

ADJOURNMENT



Thursday, October 24 2024

Day 2 Welcome Remarks 9:00 am Jody Frost Co-chair of Global Forum on Innovation in Health Professional Education **Pamela Jeffries** Planning Committee Co-chair **Reflections from Day 1** 9:05 am Grace Huang Harvard Medical School 9:20 am **Innovations in HPE SOTL** Moderator: Kim Dunleavy Planning Committee Co-chair Patricia O' Sullivan (virtual) University of California San Francisco School of Medicine **Audience Q&A In-person & Virtual Activity: Instructions** 10:00 am Moderator: Yasuharu (Haru) Okuda Center for Advanced Medical Learning and Simulation University of South Florida *In-Person Attendees - remain in room to participate in breakout activity.* Virtual Attendees - respond to the question through Slido. Livestream resumes at 11:00 am ET. 10:10 am **Breakout Groups 1-4 Led by Forum Members** Group 1: Dawn Mancuso, Association of Schools and Colleges of **Optometry** Group 2: Peter Cahn, Massachusetts General Hospital Institute of Health Professions Group 3: Katie Eliot, Academy of Nutrition and Dietetics Group 4: Anthony Breitbach & Andrea Pfeifle, National Academies of Practice



Breakout Activity for Groups 1-4:

Background: Consider the present and the future of health professional and HPE workforce. There are and will be new tools, technology and methods introduced that will change how students and health professionals consume new knowledge and learn, and how clinical and classroom educators teach.

Multiple levels are involved in HPE SOTL including educators/faculty; institutional leaders in education & health care; educators in the clinical learning environment; and external stakeholders (e.g., health professional/educational societies and associations).

Question: How would you/your team develop an innovative program to facilitate change using HPE SOTL?

Small Group Task: Create a visual that responds to the question and incorporates at least 2 levels of HPE SOTL. In developing the visual, consider changes in how future generations may learn and teach.

11:00 am Breakout Group Reports

Yasuharu (Haru) Okuda Center for Advanced Medical Learning and Simulation University of South Florida

11:35 am Open Floor Discussion

Kim Dunleavy, planning committee co-chair Pamela Jeffries, planning committee co-chair

11:55 am Closing

Zohray Talib, Co-Chair of Global Forum on Innovation in Health Professions Education

12:00 pm Adjournment



Evidence-Based Research Author Publications

To ensure workshop attendees have a shared understanding of HPE SOTL, the planning committee invited authors who represent HPE SOTL as outlined by Glassick (2000), to provide a <u>short recording</u> of their work. The selected articles show Glassick's six standards that can be applied to all four forms of scholarship. These six standards (Clear Goals; Adequate Preparation; Appropriate Methods; Significant Results; Effective Presentation; and Reflective Critique) were adapted for use in the template slide deck for each presenter. Presentations were divided into six categories believed to be key areas within HPE SOTL that were identified through pre-workshop focus groups (health professional education; clinical care/clinical learning environment; simulation; interprofessional; faculty development; and promotion & tenure).



Implementation of a clinical reasoning blueprint: Knowledge translation resources

Heather Knight, Physical Therapy <u>Publication</u>

Establishing A Scholarship of Teaching and Learning Fellows Program. Teaching and Learning in Communication Sciences & Disorders Jennifer Friberg and Mark DeRuiter, Audiology & Speech-Language Pathology <u>Publication</u>

On nurturing the emergent SoTL researcher: Responding to challenges and opportunities

Alice Kim, Psychology <u>Publication</u>

Building Learning Community and Student Engagement through the Community of Inquiry Framework: Applications in a Dietetics Program Ana Abad-Jorge & Jennifer Walsh, Nutrition and Dietetics *Publication in progress*

NATIONAL ACADEMIES Sciences Engineering Medicine

Clinical Care/Clinical Learning Environment

Diagnostic reasoning by experienced speech-language pathologists and student clinicians

Sarah Ginsberg Publication

Interprofessional

Determining the impact of interprofessional learning in practice model on learners and patients Sarah Shrader

Publication

Faculty Development

The role of faculty development in advancing change at the organizational level

Patricia O'Sullivan **Publication**

Promotion & Tenure

A standards-based, peer-reviewed teaching award to enhance a medical school's teaching environment and inform the promotions process Joan Friedland and Nancy Moreno **Publication**

Simulation

Return on investment from simulation-based mastery learning Jeffrev Barsuk **Publication**

Cost savings of performing paracentesis procedures at the bedside after simulation-based education

Jeffrev Barsuk **Publication**

Single-stage laparoscopic management of choledocholithiasis: An analysis after implementation of a mastery learning resident curriculum Jeffrev Barsuk Publication

ΝΛΤΙΟΝΛΙ Sciences ACADEMIES Medicine

Simulation Continued

Cost savings from reduced catheter-related bloodstream infection after simulation-based education for residents in a medical intensive care unit Jeffrey Barsuk <u>Publication</u>

Comparison of clinical options: High-fidelity manikin-based and virtual simulation

Desiree Díaz <u>Publication</u>

Remembering to resume: A Randomized trial comparing combined interruption management training and simulation-based education to simulation-based education alone

Desiree Díaz Publication

Implications of subject matter expertise as a requirement for debriefing: A randomized control trial

Desiree Díaz Publication

Feasibility of using holograms as embedded participants (EP) in simulation-based education (SBE) Desiree Díaz Publication

CITATIONS

- Barsuk, J.H., Barsuk, S.A., Wayne, D.B. (2020). Return on Investment from Simulation-Based Mastery Learning. In: McGaghie, W., Barsuk, J., Wayne, D. (eds) Comprehensive Healthcare Simulation: Mastery Learning in Health Professions Education. Comprehensive Healthcare Simulation. Springer, Cham. <u>https://doi.org/10.1007/978-3-030-34811-3_19</u>
- Barsuk, J. H., Cohen, E. R., Feinglass, J., Kozmic, S. E., McGaghie, W. C., Ganger, D., & Wayne, D. B. (2014). Cost savings of performing paracentesis procedures at the bedside after simulation-based education. Simulation in healthcare : journal of the Society for Simulation in Healthcare, 9(5), 312–318. <u>https://doi.org/10.1097/SIH.00000000000000040</u>
- Cohen, E. R., Feinglass, J., Barsuk, J. H., Barnard, C., O'Donnell, A., McGaghie, W. C., & Wayne, D. B. (2010). Cost savings from reduced catheter-related bloodstream infection after simulationbased education for residents in a medical intensive care unit. Simulation in healthcare : journal of the Society for Simulation in Healthcare, 5(2), 98–102. https://doi.org/10.1097/SIH.0b013e3181bc8304
- 4. Díaz, D. A., Anderson, M., Hill, P. P., Quelly, S. B., Clark, K., & Lynn, M. (2021). Comparison of Clinical Options: High-Fidelity Manikin-Based and Virtual Simulation. Nurse educator, 46(3),

NATIONAL ACADEMIES Sciences Engineering Medicine Scholarship of Teaching and Learning in Health Professions Education: A Workshop | 13

149-153. https://doi.org/10.1097/NNE.00000000000000000

- 5. Díaz, Desiree A, Anderson, Mindi, Hoffman, Bari, Alegre, Jordan V, Simon, Ernesto G, Gomez, Anthony W, Villamizar, Alexa, Wade, Alexis. (2022) Feasibility of using holograms as embedded participants (EP) in simulation-based education (SBE). International Journal of Healthcare Simulation. 1. no.Supplement SRSIS 1. (from 10.54531/TDVF8904
- Díaz, D. A., Gonzalez, L., Anderson, M., MacKenna, V., Hoyt, E., & Hill, P. P. (2020). Implications of Subject Matter Expertise as a Requirement for Debriefing: A Randomized Control Trial. Simulation & Gaming, 51(6), 770-784. <u>https://doi.org/10.1177/1046878120945743</u>
- 7. Friberg, J., & DeRuiter, M. (2024). Establishing A Scholarship of Teaching and Learning Fellows Program. Teaching and Learning in Communication Sciences & Disorders, 8(2). DOI: <u>https://doi.org/10.61403/2689-6443.1347</u>.
- 8. Ginsberg, S.M., Friberg, J.C., & Visconti, C.F. (2016). Diagnostic Reasoning by Experienced Speech-Language Pathologists and Student Clinicians. Contemporary Issues in Communication Science and Disorders. Vol 43: 87-97 <u>https://doi.org/10.1044/cicsd 43 S 87</u>
- Hill, P. P., Díaz, D. A., Anderson, M., Talbert, S., & Maraj, C. (2024). Remembering to Resume: A Randomized Trial Comparing Combined Interruption Management Training and Simulation-Based Education to Simulation-Based Education Alone. Nursing education perspectives, 45(1), 5–11. https://doi.org/10.1097/01.NEP.000000000001144
- Kim, A.S.N., Popovic, C., Farrugia, L., Saleh, S.A.F., Maheux-Pelletier, G., & Frake-Mistak, M. (2020). On nurturing the emergent SoTL researcher: Responding to challenges and opportunities. International Journal for Academic Development. <u>DOI:</u> <u>10.1080/1360144X.2020.1842743</u>
- Knight H, Peterson J, Reilly M, Furze J, Jensen G. (2024) Implementation of a clinical reasoning blueprint: Knowledge translation resources. Clin Teach. Mar 18:e13763. doi: 10.1111/tct.13763. Epub ahead of print. PMID: 38497166.
- Schwab, B., Teitelbaum, E. N., Barsuk, J. H., Soper, N. J., & Hungness, E. S. (2018). Single-stage laparoscopic management of choledocholithiasis: An analysis after implementation of a mastery learning resident curriculum. Surgery, 163(3), 503–508. <u>https://doi.org/10.1016/j.surg.2017.10.006</u>
- 13. Searle NS, Teal CR, Richards BF, Friedland JA, Weigel NL, Hernandez RA, Lomax JW, Coburn M, Nelson EA. (2012) A standards-based, peer-reviewed teaching award to enhance a medical school's teaching environment and inform the promotions process. Acad Med. 87(7):870-6. doi: 10.1097/ACM.ob013e3182584130. PMID: 22622222.
- 14. Shrader, S., Jernigan, S., Nazir, N., & Zaudke, J. (2023). Determining the impact of an interprofessional learning in practice model on learners and patients. Journal of interprofessional care, 37(sup1), S67–S74. <u>https://doi.org/10.1080/13561820.2018.1513465</u>
- Steinert, Y., O'Sullivan, P. S., & Irby, D. M. (2024). The Role of Faculty Development in Advancing Change at the Organizational Level. Academic Medicine : Journal of the Association of American Medical Colleges, 99(7), 716–723. https://doi.org/10.1097/ACM.0000000000005732

NATIONAL ACADEMIES Sciences Engineering Medicine Scholarship of Teaching and Learning in Health Professions Education: A Workshop | 14

Scholarship of Teaching and Learning in Health Professions Education

Workshop Roster

WORKSHOP PLANNING COMMITTEE

Kim Dunleavy, PT, PhD, FNAP (Co-Chair)

Clinical Professor and Director of Community Engagement University of Florida Department of Physical Therapy

Pamela Jeffries, PhD, RN, FAAN, ANEF, FSSH (Co-Chair) Dean Vanderbilt University School of Nursing

Jonathan Amiel, MD

Professor of Psychiatry Senior Associate Dean for Innovation in Health Professions Education Columbia University's Vagelos College of Physicians & Surgeons

Grace Huang, MD

Dean for Faculty Affairs and Professor of Medicine Harvard Medical School

Gail Jensen, PhD, MA

Vice Provost for Learning and Assessment Dean Emerita and Professor of Physical Therapy Creighton University

Loretta M. Nunez, MA, AuD, CCC-A/SLP, FNAP, ASHA Fellow

Senior Director of Academic Affairs & Research Education American Speech-Language-Hearing Association

Yasuharu (Haru) Okuda, MD

Executive Director and CEO Center for Advanced Medical Learning and Simulation University of South Florida Associate Vice President, Office of Interprofessional Education and Practice



Scholarship of Teaching and Learning in Health Professions Education

Workshop Roster

WORKSHOP SPEAKERS & INVITED AUTHORS

Ana Abad-Jorge, EdD, MS, RDN, FAND

Associate Professor James Madison University Department of Health Professions

Jeffrey H. Barsuk, MD, MS, SFHM

Executive Medical Director, Northwestern Simulation Robert Hirschtick Professor of Medicine Northwestern University Feinberg School of Medicine

H. Carrie Chen, MD, PhD

Associate Dean for Medical Education Research and Scholarship Kaiser Permanente Bernard J. Tyson School of Medicine

Mark DeRuiter, MBA, PhD, CCC-A/SLP, ASHA Fellow

Vice Chair for Academic Affairs and Professor Department of Communication Science and Disorders University of Pittsburgh

Desiree A Díaz, PhD, APRN, FNP-BC, CNE, CHSE-A, ANEF, FSSH, FAAN

President International Association for Clinical Simulation and Learning Professor, College of Nursing Undergraduate Simulation Coordinator Director Hispanic Serving Healthcare Professional Graduate Certificate University of Central Florida

Jennifer Friberg, EdD, CCC-SLP, ASHA Fellow

Director of Scholarly Teaching and Cross Endowed Chair in SoTL Center for Integrated Professional Development Professor, Communication Sciences & Disorders Illinois State University

Joan A. Friedland, MD, MPH

Professor of Medicine Center for Medical Ethics and Health Policy Huffington Department of Education, Innovation & Technology Baylor College of Medicine

NATIONAL ACADEMIES Sciences Engineering Medicine

Sarah M. Ginsberg, EdD, CCC-SLP, ASHA Fellow

Faculty Associate Director and Professor Faculty Development Center Eastern Michigan University

Alice Kim, PhD

Chair and Program Head of Psychology University of Guelph-Humber

Heather Knight, PT, DPT

Associate Professor & Neurologic Residency Program Coordinator Director of Post Professional Education Department of Physical Therapy School of Pharmacy and Health Professions Creighton University

Nancy P. Moreno, PhD, MS

Professor and Chair Huffington Department of Education, Innovation & Technology Baylor College of Medicine

Patricia O'Sullivan, EdD, MS

Professor of Medicine and Surgery Center for Faculty Educators University of California, San Francisco

Sarah Shrader, PharmD, FCCP

Senior Director of Academic Programs and Professional Development American Association of Colleges of Pharmacy

Jennifer Walsh, PhD, RDN, MS

Associate Professor, Department of Health Professions Undergraduate Program Director James Madison University



Scholarship of Teaching and Learning in Health Professions Education: A Workshop Biographical Sketches

PLANNING COMMITTEE:



Kim Dunleavy (Co-Chair) PT, PhD, FNAP is a Clinical Professor and Director of Community Engagement at the University of Florida in the Physical Therapy Department. She serves as the American Council of Academic Physical Therapy representative to the Global Forum and is currently Chair of the Physical Therapy Academy for the National Academies of Practice. She has contributed to improve entry level and continuing professional education in Vietnam, Haiti, Rwanda, and Suriname. Her research and scholarship of teaching and learning has spanned interprofessional education, continuing education models, and global instructional design. She has received multiple awards for scholarship of teaching and learning and the Societal Impact Award from the

American Physical Therapy Association. Dr Dunleavy served on the planning committee for the NASEM/Global Forum Nonpharmacological Management of Pain and Implementation Science in Health Professions Education workshops. Her Physical Therapy training from the University of Cape Town and the University of Central Arkansas was followed by a PhD in Instructional Technology from Wayne State University.



Pamela Jeffries (Co-Chair) PhD, RN, FAAN, ANEF, FSSH, is Dean of Vanderbilt University School of Nursing and holds the Valere Potter Distinguished Chair in Nursing. Dr. Jeffries is internationally known for her research and work in nursing, simulation, and health care. Throughout the academic community, she is recognized for her scholarly contributions to executive leadership, the development of innovative teaching experiential learning strategies, techniques, new pedagogies, and the delivery of content using technology. As Principal Investigator on grants funded by federal and state agencies and numerous national organizations, including the National League for Nursing (NLN) and the National Council of State Boards of Nursing, Dr. Jeffries has provided leadership and

mentorship on ground-breaking projects impacting both nursing practice and education. With the NLN, Dr. Jeffries developed the major contribution to simulation scholarship, the framework and monograph now known as the NLN Jeffries Simulation Theory.





Jonathan Amiel, MD directs the Office of Professionalism and Inclusion in the Learning Environment across the New York-Presbyterian system. He trained as a medical student, resident, and chief resident at Columbia University Vagelos College of Physicians and Surgeons, where he then completed a thirteen-year tenure in the Dean's office overseeing medical student education and where he is a Professor of Psychiatry. Dr. Amiel works closely with the Association of American Medical Colleges and the Arnold P. Gold Foundation for Humanism in Medicine and has been invited to serve as an Associate Editor of Academic Medicine. His work focuses on competency-based education and its relationship to the development of health professionals' identities to ensure that training is intentional, just, and aligned with public health needs.



Grace C. Huang, MD is Dean for Faculty Affairs and Professor of Medicine at Harvard Medical School (HMS). She is a nationally recognized educator with expertise in faculty development and educational scholarship; serves as the Editor-in-Chief of MedEdPORTAL, an online open access journal of the Association of American Medical Colleges and is on the editorial board of Academic Medicine. At Beth Israel Deaconess Medical Center she was Vice Chair for Career Development and Mentorship in the Department of Medicine, director of Academic Careers and Faculty Development, co-director of the BIDMC Academy, and director of the Rabkin Fellowship in Medical Education. She received the 2020 Excellence in Teaching Award from the Society of Hospital Medicine, the 2021 Clifford A. Barger Excellence in Mentoring

Award, and the 2022 Class Day Excellence in Clinical Instruction Award at HMS. Dr. Huang was an undergraduate at Stanford University and received her MD from Washington University in St. Louis, followed by internal medicine residency at Beth Israel Deaconess.





Gail Jensen, PhD, MA, is Vice Provost for Learning and Assessment, Dean Emerita, and Professor of Physical Therapy and a secondary appointment in the Department of Medical Humanities at Creighton University. She is known nationally and internationally for contributions in expert practice, clinical reasoning, professional ethics, and interprofessional education. Dr. Jensen is author/coauthor of over 90 publications and coauthored 14 books including Educating Physical Therapists, Clinical Reasoning and Decision Making in Physical Therapy and in 2024, Clinical Reasoning in the Health Professions, 5th ed (Higgs, Jensen, Loftus, Trede). Dr. Jensen is a Catherine Worthingham Fellow of the American Physical Therapy Association, a Distinguished Scholar fellow in the Physical Therapy Academy of

the National Academies of Practice. She is a recipient of the APTA's Rothstein Golden Pen Award, Lucy Blair Service Award, the APTA's 2011 Mary McMillan Lecturer and in 2022 gave the 24th Annual Cerasoli Lecture for the Education Academy. Dr. Jensen received her PhD in educational evaluation, holds a master's degree in physical therapy from Stanford University, and a bachelor's degree in education from the University of Minnesota.



Loretta M. Nunez, MA, AuD, CCC-A/SLP, ASHA Fellow, FNAP, is Senior Director of Academic Affairs & Research Education for the American Speech-Language-Hearing Association (ASHA). She directs activities that support academic, clinical and research education; personnel preparation; faculty development; and higher education trends and forecasting in communication sciences and disorders. Dr. Nunez leads ASHA's Envisioned Future 2025 strategic objective to advance interprofessional education and collaborative practice. She represents ASHA on the Interprofessional Professionalism Collaborative (IPC), Interprofessional Education Collaborative (IPEC) Member Council, and National Academy of Medicine Global Forum on Innovation in Health Professions

Education. She is a Fellow of ASHA and a Distinguished Fellow and Practitioner of the National Academy of Practice in Speech-Language Pathology. She received the Award of Appreciation from the Council of Academic Programs in Communication Sciences and Disorders for contributions to the discipline and is a recipient of the 2024 NAP Interprofessional Group Recognition Award awarded to members of the IPC. She is a member of the American Interprofessional Health Collaborative (AIHC) and a former AIHC Advisory Board member and co-chair of the AIHC Scholarship Committee. Dr. Nunez is dually credentialed as an audiologist and speech-language pathologist and has extensive experience in clinical, academic, and association settings related to health professions education.





Yasuharu (Haru) Okuda, MD is the Executive Director and CEO of USF Health's Center for Advanced Medical Learning and Simulation (CAMLS). He also serves as Associate VP for the Office of Interprofessional Education and Practice and is Professor and an Associate Dean at the Morsani College of Medicine. Previously, Dr. Okuda was the National Medical Director for the Simulation Learning Education and Research Network for the Department of Veterans Affairs (VA) where he established the national strategy and operationalized simulation-based programs at more than 160 VA medical facilities. He was also the founding director of the Institute for Medical Simulation and Advanced Learning for the New York City Health and Hospitals, the largest public health system in the United States. Dr. Okuda has over 20 years of experience in utilizing

emerging technologies, such as simulation and extended reality, to help train healthcare professionals and teams to improve patient safety and clinical care.

Dr. Okuda received the Distinguished Educator Award by the Society for Academic Emergency Medicine Simulation Academy for the creation of the simulation-based training program SimWARSTM; was named one of the top 25 Healthcare Leaders Under 40 by Becker's Hospital Review; was selected as one of 40 Under 40 New York's Rising Stars in Business by Crain's NY Business Magazine; and was awarded the Healthcare and Medicine Leader of the Year by i4 Business Magazine. In 2022, Dr. Okuda served as President of the Society for Simulation in Healthcare, the largest interprofessional healthcare association in the world. Dr. Okuda received his Bachelor of Science degree in Neuroscience from Brown University, his medical degree from New York Medical College, and his certificate in Healthcare Modeling and Simulation from the Naval Postgraduate School in California. He completed a residency in emergency medicine at the Icahn School of Medicine at Mount Sinai where he served as their Chief Resident, and then completed a clinical quality fellowship from the Greater New York Hospital Association.



Scholarship of Teaching and Learning in Health Professions Education: A Workshop Biographical Sketches

SPEAKERS & INVITED AUTHORS:



H. Carrie Chen, MD, PhD is Associate Dean for Medical Education Research and Scholarship at the Kaiser Permanente Bernard J. Tyson School of Medicine. She previously served as the Senior Associate Dean of Assessment and Educational Scholarship at Georgetown University and as the Abraham Rudolph Chair in Pediatric Education at the University of California San Francisco (UCSF). She is on the editorial board for Advances in Health Sciences Education, a member of the International Competency-Based Medical Education Collaborators, and core faculty for the International Course on the Ins and Outs of Entrustable Professional Activities (EPAs). Her scholarly work has focused on workplace learning and assessment, EPAs, and faculty skill development and support. Dr. Chen was a Distinguished

Educator in the Georgetown University Medical Center Teaching Academy and an honorary member of both the Gold-Headed Cane Society and Alpha Omega Alpha at UCSF. She completed her bachelor's degree in biochemistry at the University of California Berkeley, her medical degree and pediatric training at UCSF, her master's degree in education at the University of Southern California Rossier School of Education, and her doctoral degree in health professions education at Utrecht University in the Netherlands.



Patricia O'Sullivan EdD, MS currently directs Education Research for the University of California San Francisco (UCSF) School of Medicine after having directed both Faculty Development and Education Research for 18 years. Her research has focused on faculty development across the continuum of medical education. Additionally, she studies teaching approaches and simulations within surgical education. Dr. O'Sullivan is a Fellow of the American Educational Research Association and has been acknowledged for her research and mentoring by the Society of General Internal Medicine, the Association of Surgical Education and UCSF with its Lifetime Achievement in Mentoring Award. Dr. O'Sullivan has led the Research in Medical Education Section of the Association of

American Medical Colleges (AAMC), the RIME Program Planning Committee and the Division for Professions Education of the American Educational Research Association (AERA). Her educational research studies have collaborators from medicine, nursing, and health related professions. Dr. O'Sullivan received her bachelor's degree in chemistry from Rosemont College, her master's in

NATIONAL Sciences Engineering ACADEMIES Medicine

chemistry from the University of Pennsylvania and her doctorate in education from the University of Houston.



Ana Abad-Jorge, Ed.D., MS, RDN, FAND is an Associate Professor at James Madison University (JMU) within the Dept. of Health Professions. Prior to this, she was the Program Director for the bachelor's in health sciences management at the University of Virginia. Dr. Abad-Jorge's professional and research expertise are in the areas of pediatric clinical nutrition and nutrition support and in the Scholarship of Teaching and Learning. Dr. Abad-Jorge has various publications in the areas of pediatric and neonatal nutrition support, post-graduate nutrition education and educational pedagogies in health professions education. She is the recipient of several honors and awards including Engaged Teacher Scholar (ETS) Program, American Dietetic Association

Foundation's Doctoral Scholarship (2010) and the American Dietetic Association Foundation's Award for Excellence in Dietetics Education (2004). She is a member and fellow of the Academy of Nutrition and Dietetics, Nutrition and Dietetic Educators and Preceptors, and the American Society for Parenteral and Enteral Nutrition. Dr. Abad-Jorge received her education doctorate at Walden University in Higher Education and Adult Learning in 2013, her M.S. in Human Nutrition from the University of Florida and her bachelor's in biology from Rollins College.



Jeffrey H. Barsuk, MD, MS, SFHM is the Robert Hirschtick Professor of Medicine at Northwestern University Feinberg School of Medicine. He graduated Alpha Omega Alpha from Northwestern University Feinberg School of Medicine and completed a residency in Internal Medicine at the McGaw Medical Center of Northwestern University at Northwestern Memorial Hospital. Dr. Barsuk completed a Master of Science Degree in Clinical Investigation and a certificate program in Healthcare Quality and Patient Safety. Dr. Barsuk currently serves as the Executive Medical Director of Northwestern Simulation.

For the last 20 years, Dr. Barsuk has focused his research on optimizing physician, nurse, and patient clinical performance using

simulation technology. These efforts have been based on the mastery learning theoretical framework, using rigorous, validated standards for healthcare provider training. His team has published over 100 articles on this topic that demonstrate how this training approach improves clinical skills and patient care and outcomes while lowering healthcare costs. Recognized internationally as a researcher in medical education and patient safety, he has been given clinical and research excellence awards from the Society of Hospital Medicine, Association of American Medical Colleges, and the Society for Simulation in Healthcare. He has also been named in the

NATIONAL ACADEMIES Sciences Engineering Medicine top ten hospitalists nationally by the American College of Physicians. He is sought internationally to lecture on how simulation-based medical education improves patient safety.



Mark DeRuiter, MBA, PhD, CCC-A/SLP, is Professor and Vice Chair for Academic Affairs in the department of Communication Science and Disorders at the University of Pittsburgh. He is the co-editor (along with Sarah Ginsberg of Eastern Michigan University) of a book that supports clinicians in their early SoTL endeavors. He is also a founding editorial board member of the journal Teaching and Learning in Communication Sciences and Disorders. He is a Fellow of the American Speech-Language-Hearing Association (ASHA) and has received Honors of the Council of Academic Programs in Communication Sciences and Disorders. He has served on the Council for Clinical Certification in Audiology and Speech-Language Pathology (CFCC), the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA), and Special Interest Group 11 (Administration and Supervision) Dr. DeRuiter chaired the 2016 Ad Hoc Committee for ASHA's Speech-

Language Pathology Scope of Practice document revision, and he also served as the Audiology Convention Co-Chair for ASHA Convention in 2020 and 2022. Dr. DeRuiter is a recipient of ASHA's Dorothy Dreyer Award for Volunteerism. He is currently the Co-Chair for Speech-Language Pathology on ASHA's Health Care Economics Committee. He earned his PhD from the University of Minnesota and his MBA from the Augsburg University.



Desiree A Díaz PhD, APRN, FNP-BC, CNE, CHSE-A, ANEF, FSSH, FAAN is the Endowed Enfermería Faculty Scholar, Undergraduate Simulation Coordinator and a Professor at the University of Central Florida. She completed a Post Doc from Johns Hopkins with Pamela Jeffries which focused on simulation pedagogy. Dr. Diaz creates tests and disseminates research on cutting-edge technologies such as holograms within the simulation community. Her strategies within simulation research pedagogy over the last decade have promoted health equity and awareness to healthcare disparities. She was a National Coalition Ethnic Minority Nurse Scholar and Health Leadership Fellow. She is a fellow in the Academy of Nursing (FAAN), Society for Simulation (FSSH), and Nursing Education (ANEF) and serves as Immediate Past President of the International Nursing

Association for Clinical Simulation. Her current grant funding focuses on educating and exploring ways to eliminate healthcare disparities while educating the workforce. As co-PI to a 2.7-milliondollar HRSA grant "ENFERMERIA" which aims to empower and enhance linguistic services and culturally congruent care within the Hispanic community while encouraging advancement to graduate degrees of diverse post-baccalaureate student populations. She is also PI to a \$500k grant that utilizes simulation to examine healthcare disparities and the role of public health nursing, engaging multiple means to reduce healthcare inequity.

NATIONAL Sciences ACADEMIES Medicine



Jennifer Friberg EdD, CCC-SLP, ASHA Fellow is the Director of Scholarly Teaching and Cross Endowed Chair in the Scholarship of Teaching and Learning for the Center for Integrated Development at Illinois State University. She is also a professor of communication sciences and disorders and served as a SoTL Scholar Mentor, overseeing more than 100 independent studies and two study abroad trips with students. She is the co-editor of three recent volumes: Scholarship of Teaching and Learning in Communication Sciences and Disorders (2024), Going Public Reconsidered: Engaging the World Beyond Academe Through the Scholarship of Teaching and Learning (2022), and Evidence-Based Education in the Classroom: Examples from Clinical Disciplines (2022). Friberg is a founding editorial board member of the peer reviewed journal Teaching and Learning in

Communication Sciences & Disorders. Dr. Friberg earned her Bachelor's in Communicative Disorders from San Diego State University, her Master's in Speech-Language Pathology from Indiana University, and her doctorate in Curriculum & Instruction at Illinois State University.



Joan A. Friedland, MD, MPH, is Professor of Medicine, Professor, Center for Ethics and Health Policy and Professor, Huffington Department of Education, Innovation and Technology at Baylor College of Medicine. She serves as Senior Deans' Scholar for Educational Leadership. Earlier positions include Attending Physician and Associate Chief of Medicine, Michael E. DeBakey Veterans Administration Hospital and Provosts' Scholar for Educational Leadership at Baylor. She is a recipient of the Barbara and Corbin J. Robertson, Jr. Presidential Award for Excellence in Education. At Baylor she has contributed to development of two major Medical School Curriculum Revisions, 1995 and 2023 and to extensive educator development initiatives. As chair, she led the Baylor Committee for Educator Development during the design and implementation of the Norton Rose Fulbright Faculty

Excellence Award. National contributions include numerous workshops and presentations at AAMC and serving as National Chair of the AAMC GEA Section on Graduate Medical Education. Other work includes research and publication in Physical Diagnosis, Quality Assurance, Residents' Teaching Skills and Faculty Development and recognition. Dr. Friedland is a graduate of the University of Illinois, Chicago, and the University of Illinois College of Medicine, Chicago, received an MPH from the University of Texas School of Public Health and is a 1997 Harvard Macy Scholar.





Sarah M. Ginsberg, EdD, CCC-SLP, ASHA Fellow, is the Faculty Associate Director of the Faculty Development Center and a Professor of Communication Sciences and Disorders at Eastern Michigan University. Dr. Ginsberg served as chair of the Special Interest Group 10: Issues in Higher Education and several years on the Coordinating Committee for the Vice-President for Academic Affairs, both for the American Speech-Language-Hearing Association. She was the Founding Editor of the peerreviewed journal, *Teaching and Learning in Communication Sciences & Disorders* and continues to serve on the Board of Directors. She is the co-editor of Scholarship of Teaching and Learning in Communication Sciences and Disorders: Past, Present, and Future (2024); Clinician's Guide to Applying,

Conducting, and Disseminating Clinical Education Research (Routledge, 2024); and Evidence-Based Education in Classroom: Examples from Clinical Disciplines (Routledge, 2021). Her area of research focuses on the role of communication in higher education teaching effectiveness and the intersection between university teaching support programs and SOTL. Prior to higher education, she worked 12 years as a clinician in hospitals with patients having neurologically based communication and swallowing disorders.



Alice Kim, PhD is the Chair of Psychology at the University of Guelph-Humber, and the Founder of Teaching and Learning Research In Action. She currently serves as a Co-Editor for the Canadian Journal for the Scholarship of Teaching and Learning and is the Chair Elect for the Teaching of Psychology (ToP) Section of the Canadian Psychological Association. Alice's formal training is in experimental psychology and cognitive neuroscience of memory and learning. Her current research is focused on factors that impact students' learning trajectories, including student engagement, experiential education, and application of cognitive learning principles in course design. Much of her research also explores student-faculty partnerships that foster the co-creation of learning and teaching. In 2023 she received a D2L Innovation Award in Teaching and Learning from the Society of Teaching and Learning in Higher Education. In 2024 she was the inaugural

recipient of the SoTL Research Award from the Canadian Psychological Association ToP section. Alice completed both her master's and PhD in psychology at the University of Toronto.





Heather Knight, PT, DPT is an Associate Professor and Director of Post Professional Education in the Department of Physical Therapy at Creighton University in Omaha, NE. Dr. Knight has been a Board-Certified Clinical Specialist in Neurologic Physical Therapy (ABPTS) since 2011 and involved in teaching concepts related to neurologic rehabilitation in professional and post professional education for over 10 years. Her scholarship has focused on clinical reasoning and blending evidence-based practice for neurologic rehabilitation with best practices in teaching and learning across the continuum of PT education. She is actively engaged in the American Physical Therapy Association through the Academies of Neurologic Physical Therapy (ANPT) and Physical Therapy Education (APTE) which has led to a special interest in knowledge translation and implementation science within these specialty areas. Dr. Knight completed post

professional training through Kaiser Permanente's Neurologic PT Residency Program in 2010, received a Doctorate in Physical Therapy from Creighton University in 2008, and obtained a bachelor's in science in Kinesiology from Arizona State University in 2005.



Nancy P. Moreno, PhD, MS is professor and inaugural chair of the Huffington Department of Education, Innovation & Technology and Thomas R. Powers Distinguished Chair of Educational Outreach at Baylor College of Medicine. Previously, she served as Associate Provost of Faculty Development and Institutional Development at Baylor. In this role, she expanded faculty development and recognition opportunities and led an institution-wide effort to update institutional guidelines for faculty appointment and promotion. She is a member of the first class of faculty inductees into Baylor's Academy of Distinguished Educators, received three peer-reviewed Faculty Excellence educator awards and was honored with Baylor's highest educational award, the Barbara and Corbin J. Robertson, Jr., Presidential Award for Excellence in Education. Nationally, she

was awarded the Science Prize for Online Resources in Education by the American Association for the Advancement of Science (AAAS) and also was elected as a Fellow of AAAS. Her national level efforts focuses on incorporating health and biomedical science into STEM education for all learners and developing pathways into related careers from elementary school through professional education. Dr. Moreno received her BA from the University of Wisconsin, an MSc from the Instituto National de Investigationes sobre Recursos Bióticos, in Mexico, and a PhD from Rice University.





Sarah Shrader, PharmD, FCCP is the Senior Director of Academic Programs and Professional Development at the American Association of Colleges of Pharmacy (AACP). She leads professional development programs for members to reach their potential as strong academic pharmacists. Prior to AACP, she was a tenured professor of pharmacy practice and a member of the faculty at three colleges of pharmacy over 17 years. She has focused the majority of her scholarship on the scholarship of teaching and learning and interprofessional practice and education. She has provided numerous presentations at national and international meetings with several publications related to interprofessional education and collaborative practice. Dr. Shrader earned her doctoral pharmacy degree at University of

Kansas and completed her residency program the Medical University of South Carolina. She is passionate about fulfilling her professional purpose of developing, teaching, serving, and leading others to grow their potential and leave the world even better than they found it.



Jennifer Walsh, PhD, RDN is an Associate Professor in Dietetics and Undergraduate Dietetics Program Director in the Department of Health Professions at James Madison University. She currently teaches Management in Dietetics, Counseling Skills in Dietetics, Senior Seminar, Community Nutrition, and Foundations of Nutrition Practice. She has conducted nutrition education and eating behavior research for over fifteen years, primarily working with underserved communities. She has facilitated health program planning and community-based participatory research for increasing healthful food access and associated supports. Dr. Walsh became a registered dietitian in 2007 and earned her doctorate in Food and Nutrition Sciences from the University of Maine in 2012. From 2011-2016 she worked as a statewide coordinator at the University of Florida

for the Family Nutrition Program and the Expanded Food and Nutrition Education Program. She currently serves as the Public Policy Coordinator for the Virginia Academy of Nutrition Dietetics.



Scholarship of Teaching and Learning in Health Professions Education: A Workshop | 28

Global Forum on Innovation in Health Professional Education

This workshop was convened by <u>The Global Forum on Innovation in Health Professional</u> <u>Education</u> (IHPE Forum) an ongoing, convening activity of the National Academies of Sciences, Engineering, and Medicine that brings together diverse stakeholders to network, discuss, and illuminate issues for the benefit and promotion of health professional education. The IHPE Forum is an innovation collaborative with the task of applying an ongoing, multi-national, multi-disciplinary approach to proposing and exploring promising innovations for achieving recommended reforms in the instructional and institutional spheres. Currently, there 32 member-sponsors comprised of affiliations that represent 15 different health professions disciplines. Visit the IHPE Forum <u>website</u> to view our list of members and contact Patricia Cuff (<u>pcuff@nas.edu</u>) if you and your organization are interested in joining this global collaborative.

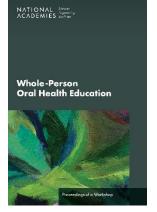
On behalf of the IHPE Forum Co-chairs and member sponsors, thank you for attending our workshop, Scholarship of Teaching and Learning in Health Professions Education!

RECENT PUBLICATIONS Optimizing Recruitment and Admissions Strategies in Health Professions Education: Proceedings of a

Workshop (2024). The Global Forum on Innovation in Health Professional Education hosted a hybrid public workshop in March 2024 to consider the use of admissions strategies for ensuring a sustainable, high-quality workforce that is adequately staffed, reflects the population being served, and is equitably distributed. Speakers explored the evidence supporting present and potential admissions processes and which metrics best track students' professional outcomes after admissions. Download the Pre-Publication







Whole-Person Oral Health Education: Proceedings of a

Workshop (2024). In February 2024, the Global Forum on Innovation in Health Professional Education co-hosted a public workshop with Penn Dental Medicine at the University of Pennsylvania to explore value proposition for oral health promotion and disease prevention. Experts from around the globe representing multiple sectors, discussed the value of holistic oral health, particularly for those with disabilities, and the importance of interprofessional education and collaborative practices aimed at whole-person oral health care. <u>Download the Publication.</u>

Subscribe to IHPE Forum emails for updates on future workshops and publications!



POLICY FOR PARTICIPANTS IN NASEM ACTIVITIES

THE NATIONAL ACADEMIES ARE A NON-PARTISAN ORGANIZATION

It is essential to the National Academies mission of providing nonpartisan evidence-based advice that participants in any of our meetings or events avoid political or partisan statements or commentary and maintain a culture of mutual respect. The statements and presentations during our meetings or events are solely those of the individual participants and do not necessarily represent the views of other participants or the National Academies.

PREVENTING DISCRIMINATION, HARASSMENT, AND BULLYING

The National Academies of Sciences, Engineering, and Medicine (NASEM) are committed to the principles of diversity, inclusion, integrity, civility, and respect in all of our activities. We look to you to be a partner in this commitment by helping us to maintain a professional and cordial environment. **All forms of discrimination, harassment, and bullying are prohibited in any NASEM activity.** This policy applies to all participants in all settings and locations in which NASEM work and activities are conducted, including committee meetings, workshops, conferences, and other work and social functions where employees, volunteers, sponsors, vendors, or guests are present.

Discrimination is prejudicial treatment of individuals or groups of people based on their race, ethnicity, color, national origin, sex, sexual orientation, gender identity, age, religion, disability, veteran status, or any other characteristic protected by applicable laws.

Sexual harassment is unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature that creates an intimidating, hostile, or offensive environment.

Other types of harassment include any verbal or physical conduct directed at individuals or groups of people because of their race, ethnicity, color, national origin, sex, sexual orientation, gender identity, age, religion, disability, veteran status, or any other characteristic protected by applicable laws, that creates an intimidating, hostile, or offensive environment.

Bullying is unwelcome, aggressive behavior involving the use of influence, threat, intimidation, or coercion to dominate others in the professional environment.

REPORTING AND RESOLUTION

Any violation of this policy should be reported. If you experience or witness discrimination, harassment, or bullying, you are encouraged to make your unease or disapproval known to the individual at the time the incident occurs, if you are comfortable doing so. You are also urged to report any incident by:

- Filing a complaint with the Office of Human Resources at 202-334-3400 or hrservicecenter@nas.edu, or
- Reporting the incident to an employee involved in the activity in which the member or volunteer is participating, who will then file a complaint with the Office of Human Resources.

Complaints should be filed as soon as possible after an incident. To ensure the prompt and thorough investigation of the complaint, the complainant should provide as much information as is possible, such as names, dates, locations, and steps taken. The Office of Human Resources will investigate the alleged violation in consultation with the Office of the General Counsel.

NATIONAL ACADEMIES Sciences Engineering Medicine Scholarship of Teaching and Learning in Health Professions Education: A Workshop | 30

If an investigation results in a finding that an individual has committed a violation, NASEM will take the actions necessary to protect those involved in its activities from any future discrimination, harassment, or bullying, including in appropriate circumstances **the removal of an individual from current NASEM activities and a ban on participation in future activities**.

CONFIDENTIALITY

Information contained in a complaint is kept confidential, and information is revealed only on a need-toknow basis. NASEM will not retaliate or tolerate retaliation against anyone who makes a good faith report of discrimination, harassment, or bullying.

