



BUILDING FOR MEDICAL EDUCATION ASSESSMENT'S FUTURE

With the field of medicine and the medical education landscape continually evolving, NBME is building for the future to help meet changing assessment needs. This edition of *NBME Impact: A Community Report* shows how NBME is ensuring the value and relevancy of our current assessments, developing our capabilities for innovations, and enhancing our focus on assessing critical skills and behaviors.

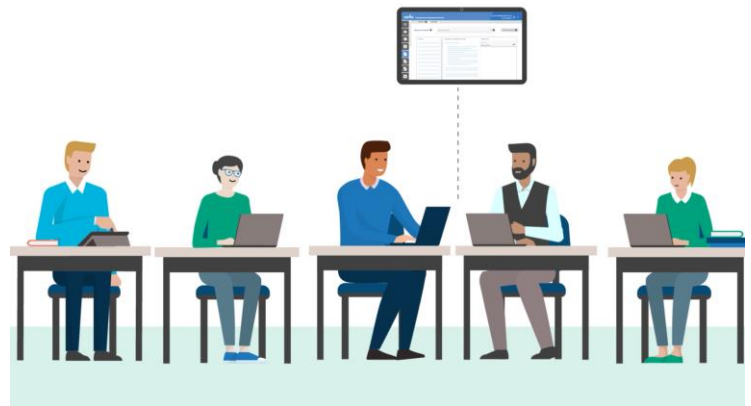
ENSURING THE VALUE OF OUR PRODUCTS AND SERVICES

As we look to the future to respond to the ever-changing needs of the health care community, we are taking care to ensure the value of our products, services and capabilities.

Evolving NBME's Portfolio to Support Medical Student Learning

From customizable to standardized examinations, NBME's Assess and Learn Portfolio provides flexible and convenient tools to help medical educators measure and enhance learning through Subject Exams, Customized Assessment Services (CAS) and Self-Assessment Services. NBME's portfolio is evolving to better support medical student learning with two significant enhancements: the **Customized Assessment Services (CAS) Practice option** and the **INSIGHTSSM dashboard**.

The CAS Practice option provides opportunities for educators to review questions with students. At the end of each exam, students are given immediate feedback on their performance, including their percent correct score and the ability to review questions answered incorrectly. After administration, faculty can conduct exam reviews with groups or individual students. The CAS Practice option also offers additional flexibility for educators by allowing them to set up online administration windows, eliminating the need to reserve rooms or proctors.



Last year, NBME launched INSIGHTS, an interactive dashboard that provides direct access to students' NBME[®] Self-Assessment results. Through INSIGHTS, learners can track longitudinal performance more easily and delve deeper into content areas of strength and areas for improvement.

To further enhance students' experience and demonstrate learning, most NBME Subject Exam scores are now available in INSIGHTS. Subject exams are convenient, pre-built assessments that help educators to assess student knowledge at the end of a course or clerkship, enabling them to benchmark their cohort against examinees around the country. Delivering Subject Exam results through INSIGHTS reduces the administrative burden on faculty, who no longer need to manually distribute score reports after each administration. The planned inclusion of CAS results in INSIGHTS will give an extensive view of NBME assessment activity.

New Study Shows USMLE Performance Tied to Better Patient Outcomes

A recent article [published in Academic Medicine](#) explores the correlation between examinee performance on the United States Medical Licensing Examination® (USMLE®) and improved patient outcomes. This new research provides additional support for the validity and importance of USMLE's role in the medical licensure process.



The authors from NBME conducted a retrospective analysis of nearly **200,000 hospitalizations** (with five common inpatient diagnoses) in Pennsylvania over a three-year period with more than 1,750 family physicians and general internists, connecting their USMLE scores with outcomes of in-hospital mortality and length of stay. Results showed that **better physician USMLE performance** across the series of exams was associated with **lower mortality and shorter lengths of stay**. [Learn more on USMLE.org](#).

"The USMLE is designed to ensure that licensed physicians have the necessary knowledge and skills to provide safe and effective patient care," **Alex Mechaber, MD**, NBME Vice President of USMLE, said. "This latest research further demonstrates the positive correlations between USMLE scores and improved patient outcomes of care."

2023 Assessment Programs and Services Highlights

As a leader in the field of medical education assessment, NBME has a diverse and impactful portfolio of programs and services. In 2023, NBME:

- ▶ Developed, administered and scored assessments for more than **1.1 million examinees**.
- ▶ Worked with **16 collaborators** for our custom programs.
- ▶ Provided services to **267 medical schools** with our Assess and Learn portfolio.
- ▶ Delivered **13 institution Item-Writing Workshops**, **four open enrollment workshops** and **eight workshops** for the NBME Invitational Conference for Educators, resulting in nearly **700 participants** from across the medical education community.

DEVELOPING OUR CAPABILITIES FOR ASSESSMENT INNOVATIONS

While maintaining and evolving NBME's core products and services, we're also researching and developing our capabilities for innovating in assessment.

NBME Acquires MedVR Education to Enhance Medical Assessment

NBME recently acquired [MedVR Education](#), an extended reality platform for health care skill development, marking a significant milestone in NBME's commitment to enhancing its ability to develop new tools and assessments that support learners through the medical education journey.

"NBME has long valued and leveraged diverse expertise and skills to deliver relevant and reliable examinations," NBME President and CEO **Peter J. Katsufakis** said. "This acquisition demonstrates NBME's commitment to continuing to serve the evolving needs of medical education and underscores our dedication to providing innovative solutions to the field."

The acquisition of MedVR Education demonstrates NBME's investment in innovation and technology that extends medical education assessment into learning and practice, empowering medical learners with

actionable insights that assess and guide their development. The addition of MedVR Education's simulation platform provides NBME with an opportunity to bring assessments for learning to our community, enabling engaging, asynchronous practice and feedback at scale. [Learn more at NBME.org](#).

New Vice President Selected for Growth and Innovation of Products and Services



Laura Ryan, MPH, joined NBME as the Vice President of Product Management & Innovation for the Growth and Innovation team. Ryan brings over 18 years of experience in product management, health care education and relationship management to her new role, where she will oversee the development and delivery of innovative and high-quality assessment products and services.

Before arriving at NBME, Ryan earned a Bachelor of Science degree in anthropology and a Bachelor of Arts degree in journalism from Rutgers University. She previously served as the Program Director of Commercial Content Solutions, STMJ Product Management, at Elsevier. In 2022, she earned her Master of Public Health from George Washington University, graduating summa cum laude.

“This is a mission-driven organization that not only cares about the same things that I do as an individual outside of work but also aligns with the way I wish to see my career evolve,” Ryan said. “I am pleasantly surprised every day how dedicated the staff is to the mission and vision of NBME.”

NBME Researchers Share Insights into Innovation in Assessment

NBME's [research team](#) features a number of distinguished psychometricians and measurement, data and natural language processing (NLP) scientists. These individuals are committed to advancing assessment through research into emerging innovations and sharing their insights with the medical education community.

- ▶ On March 14, 2024, NBME is hosting a webinar on **Artificial Intelligence (AI) in Assessment**. Moderator **Andrea Anderson**, MD, Associate Chief, Division of Family Medicine for the George Washington University School of Medicine and Health Sciences, joins NBME Manager of NLP Research **Victoria Yaneva**, PhD, and NBME Director of Test Development Innovations **Kimberly Swygert**, PhD, for a rich conversation on AI in medical education assessment. Following the discussion, webinar attendees are invited to participate in a live Question and Answer session with AI and NLP experts from NBME. For those who can't attend the live session, look for recorded and summarized materials on [NBME.org](#) and [NBME's LinkedIn page](#).
- ▶ NLP has tremendous transformative potential for medical education assessment development and scoring. NBME researchers are investigating the use of NLP to improve assessment of clinical reasoning skills, construct new scoring systems and more. You can find [a summary of their NLP research on reassessthefuture.org](#).
- ▶ In NBME's Ask the Expert video series, researchers share how their work can help advance key areas of medical education assessment. You can listen to [Victoria Yaneva's thoughts on NLP](#), Senior Measurement Scientist [Christopher Runyon, PhD, explore clinical reasoning](#) and Senior Measurement Scientist [Su Somay, PhD, discuss construct development](#).

ENHANCING NBME'S FOCUS ON ASSESSING SKILLS AND BEHAVIORS

Measuring a learner's knowledge is an essential foundational piece to the practice of medicine. NBME also recognizes the importance of building on that foundation to assess the skills and behaviors that ultimately promote better patient care.

New Vice President Appointed for Competency-Based Assessment Team



Christopher Feddock, MD, MBA, was appointed Vice President of Competency-Based Assessment (CBA). Dr. Feddock previously served as the Assistant Vice President of CBA and the Executive Director of the Clinical Skills Evaluation Collaboration, leading the USMLE Step 2 Clinical Skills Examination.

Prior to joining NBME, Dr. Feddock's positions included Senior Associate Dean for Medical Student Education, Associate Dean for Curriculum, as well as Internal Medicine and Internal Medicine-Pediatrics Residency Program Director for the University of Kentucky College of Medicine.

Dr. Feddock is licensed to practice medicine in Kentucky and is a diplomate of the American Board of Internal Medicine and the American Board of Pediatrics. He received a bachelor's degree from the University of Pennsylvania, a Doctor of Medicine from the University of Kentucky College of Medicine, and a Master of Business Administration from Xavier University.

OSCE for Clinical Reasoning Creative Community Completes Successful Pilot

To support learners in the development of clinical skills, NBME's Creative Community initiative is focusing on the enhancement of clinical reasoning assessment using school-based Objective Structured Clinical Examinations (OSCEs). The Creative Community has spent the last 22 months developing assessment tools that can provide meaningful feedback to post-clerkship medical students. After refining its model through multiple rounds of proof-of-concept studies, the Creative Community successfully completed a pilot in November 2023 with **76 students** finishing **304 cases** with **14 standardized patients** across **10 days**. Within this pilot, students had several opportunities to display clinical reasoning skills and afterwards, they provided positive feedback about the format and content.

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