CBME innovation

Sanjay V. Desai, MD MACP
Chief Academic Officer, American Medical Association
Professor of Medicine, Johns Hopkins University

November 18, 2022
UME Innovations
AMA Medical Education UME Consortium

CBME was a focus
MORE THAN $14.1 MILLION
TO 37 MEDICAL SCHOOLS

TODAY, THESE FUNDS SUPPORT 23,000 MEDICAL STUDENTS

WHO WILL ONE DAY PROVIDE CARE FOR MORE THAN 40 MILLION PATIENTS ANNUALLY
## Core Components

<table>
<thead>
<tr>
<th>Outcome Competencies</th>
<th>Aligned w ACGME +/- AAMC EPAs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sequenced Progression</td>
<td>Competencies tracked across variability of years</td>
</tr>
<tr>
<td>Tailored Learning</td>
<td>Digital portfolios, flexibility in clerkships, coaching</td>
</tr>
<tr>
<td>Competency-focused Instruction</td>
<td>Learning objectives mapped to competencies</td>
</tr>
<tr>
<td>Programmatic Assessment</td>
<td>Variable</td>
</tr>
<tr>
<td>Time Variable Approaches</td>
<td>Graduation</td>
</tr>
</tbody>
</table>

Lomis K, et al. *Medical Teacher*, 43:sup2, S7-S16
Graduate Early*

- 2018: 25%
- 2019: 60
- 2020: 66
- 2021: 77
- 2022: 93

*Some start GME if at OHSU; Match rates not different; 2022 on track

Average $17,000 per student

Acknowledgement: George Mejicano, Tracy Bumsted
GME Innovations
“Promotion in Place”

Piloting CBME-TV in GME

John Co, MD, MPH (PI)
Debra Weinstein, MD (PI emeritus)
Mary Ellen Goldhamer, MD, MPH
Martin Pusic, MD, PhD
Stephen Black-Schaffer, MD
Maria Martinez-Lage, MD
Eric Nadel, MD
Conceptual Model

- **Voluntary** participation - programs and people
- Emphasizes **individualized training**, guided by enhanced assessment with faculty development and resident coaching
- Training duration may be **shorter or longer**
- Residents who demonstrate competency earlier than standard duration **stay at the institution**, but are “**promoted in place**” to attending
Programs can customize

- **Minimum time** in training (at outset)
- Enhancements to **assessment** (beyond identified common elements)
- Intervals for **transitions** to attending
- Opportunities for **enfolded fellowships**, or fellowship immediately upon graduation and before PIP period
- Composition of **junior attending role**
Physicians’ powerful ally in patient care
<table>
<thead>
<tr>
<th>Core components (Van Melle et al., International Competency-Based Medical Education Collaborators. 2019)</th>
<th>Vanderbilt University School of Medicine</th>
<th>Oregon Health &amp; Science University School of Medicine</th>
<th>University of Michigan Medical School</th>
<th>University of California, San Francisco, School of Medicine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome competencies</td>
<td>Institutionally-created UME competencies aligned with ACGME framework (Lomis et al. 2017) plus AAMC Core EPAs</td>
<td>Institutionally-created UME competencies aligned with ACGME framework plus AAMC Core EPAs</td>
<td>Eight Institutionally – created UME competency domains aligned with ACGME framework + 2 additional domains (leadership, teamwork, &amp; interprofessionalism; critical thinking &amp; discovery) for a total of 31 competencies</td>
<td>Seven UME competencies aligned with the 6 competencies in the ACGME framework plus interprofessional collaboration</td>
</tr>
<tr>
<td>Sequenced progression</td>
<td>Competencies are allocated and tracked across courses and years of training. Greater focus on EPAs in the post-clerkship phase.</td>
<td>Competencies are allocated and tracked across courses and years of training. EPA achievement tracked only in clinical phase.</td>
<td>Focus on 4 competency domains during first preclinical year (MK, PC, Comm, Prof); other competencies assessed in clerkship and post-clerkship years.</td>
<td>Competencies have 35 milestones for the 3 phases of the curriculum; curriculum and assessment activities are mapped to the milestones</td>
</tr>
<tr>
<td>Tailored learning experiences</td>
<td>Evidence-driven digital portfolio. Structured individualized coaching program. Student-led individualized learning plans, with scheduling flexibility in post-clerkship phase (years 3 &amp; 4)</td>
<td>Students have great flexibility in timing and choice of clerkships. Each student assigned to an academic coach who provides guidance based on student performance.</td>
<td>Three years of workplace-based learning (clinical). Post-clerkship competency committee reviews competency development and provides guidance to learners and their coaches/advisers (Keeley et al. 2019). Individualized development plans and coaches.</td>
<td>Each student has a faculty coach for the entire curriculum; students and coaches have 8 progress and planning meetings to review progress in student dashboard and discuss student’s individual SMART goals for learning planning</td>
</tr>
<tr>
<td>Competency-focused instruction</td>
<td>All courses and clerkships have learning objectives and assessments mapped to competencies. New course structures created to emphasize differing competency needs.</td>
<td>All courses and clerkships have learning objectives and assessments mapped to competencies.</td>
<td>All courses and clerkships have learning objectives and assessments mapped to competencies.</td>
<td>All courses and clerkships have learning objectives and assessments mapped to competencies.</td>
</tr>
<tr>
<td>Programmatic assessment</td>
<td>All courses assess in standardized competency language and provide frequent formative and fully transparent feedback. Individual competency development is tracked and informs progression independently of course grades. Aggregate competency outcomes for cohorts of students inform curricular and assessment improvements.</td>
<td>All courses and clerkships have a standardized assessment framework based on competencies. Aggregate competency outcomes for cohorts of students inform curricular and assessment improvements.</td>
<td>Learners are assessed primarily based on competencies using a number of assessment strategies. Competency committee reviews learner data in dashboard and makes determination of competency progression (Monrad et al. 2019).</td>
<td>All assessments are centrally coordinated (Hauer et al. 2018). Multiple competency-focused assessment tools are used longitudinally. Group decision making is required for course and clerkship grading and overall progress.</td>
</tr>
<tr>
<td>Time variable approaches * the Van Melle model does not name time-variability as a core component</td>
<td>Graduation is not variable; however variable use of time in the post-clerkship phase based on individual’s competency development</td>
<td>Time-variable progression as well as graduation. A few students have begun GME training – 2 months early and early graduation is increasingly common.</td>
<td>Graduation is not variable; however variable use of time in post-clerkship phase based on individual’s competency development.</td>
<td>Time variability allowed for exams and in required medicine sub-internship.</td>
</tr>
</tbody>
</table>

Lomis K, et al. Medical Teacher, 43:sup2, S7-S16