Background/Purpose

- Programmatic assessment emerging in medical education: learner’s competence and progress continually collected and analyzed in multiple assessments over time -> competency-based framework
  - Continuous feedback to learner
  - Identification of “at risk” learners
  - High stakes decision-making

- Need clear and accessible data (i.e., central repository) on a learner’s performance and growth

Approach/Methods

- Study Population: First-year medical students (MS-1), faculty working with students tasked with assessment at the University of Colorado School of Medicine (CUSOM)

- Intervention: Creation of learner performance dashboard using principles of user-centered design to track clinical skills progress in MS-1 students
  - Assessment team at the CUSOM, instructional designer and two clinician-educators

- Creation of dashboard:
  - Low-fidelity prototypes:
    - Small group sessions with students and faculty (5 people/group) - input on design and feasibility
    - Two sessions with iterative design
  - “Think aloud” sessions:
    - Individual sessions with students and faculty (9 total) - each person navigated dashboard individually and provided feedback

Dashboard: Snapshot

![Dashboard Snapshot](image-url)

Lessons Learned:

- Process: Needed to reorganize assessment data structure in order to integrate with server
- Design: Needed clear and accessible data (i.e., central repository) on a learner’s performance and growth
- Students and faculty wanted ability to navigate from broad overview down to item-level specifics
- Students and faculty wanted to view assessment data over time as well as areas of strength and weakness

Conclusions and Next Steps:

- Creation of learner performance dashboard is a promising approach for programmatic assessment and can maximize assessment of learning and assessment for learning

Next steps:

- Addition of MS-1 assessment data for class of 2026 and beyond, MS-2 clinical skills data
- Standard setting and inter-rater reliability for clinical skills assessments
- Evaluation of utility and effectiveness of dashboard

Planned Evaluation

- Focus groups with faculty (coaches who teach clinical skills to MS-1 students)
- Individual interviews with MS-1 students
- End-of-year survey for all MS-1 students
- Comparison of clinical skills performance between class of 2025 and 2026

Examples of the data display for the communication skills outcome for one medical student

References