

# National Clinical Skills Competency Assessment: the Core Competency Capstone for DOs (C3DO)

Jeanne M. Sandella, DO; John R. Gimpel, DO, MEd;  
John R. Boulet, PhD, MA; Lori A. Kemper, DO, MS

## Introduction

The Core Competency Capstone for Osteopathic Physicians (C3DO) was developed in response to the recommendation of the Special Commission on Osteopathic Medical Licensure Assessment to create a “COM-based COMLEX-USA national standardized assessment which includes an in-person, hands-on evaluation of fundamental osteopathic clinical skills including interpersonal and communication skills and OMT, with quality assurance.”<sup>1-2</sup> The NBOME Board of Directors provided resources given the importance of these skills in medical education and patient care.<sup>3-5</sup>

Goals for Pilots:

1. Feasibility: Can colleges of osteopathic medicine (COMs) administer a centrally developed examination?
2. Standardization: Is the examination standardized across COMs?
3. Reliability: Does the examination yield reliable scores?

## Methods and Materials

The NBOME worked with COMs to develop and administer a standardized assessment. Participants used a combination of online training materials (fixed amongst schools) and live training (unique to each school).

For each of the cases, the candidates were evaluated on the following skills:

- Osteopathic history and physical examination - documented by standardized patients (SPs) using a case-specific checklist developed by osteopathic physicians
- Osteopathic Manipulative Treatment (OMT) - scored by a distributed physician examiner pool using a rubric developed by osteopathic physicians
- Communication and interpersonal skills - documented by SPs using the Communication and Respectfulness Evaluation (CARE) rubric
- Clinical reasoning - candidates answer questions following each encounter (diagnosis, testing, treatment, osteopathic principles, patient counseling, etc.)

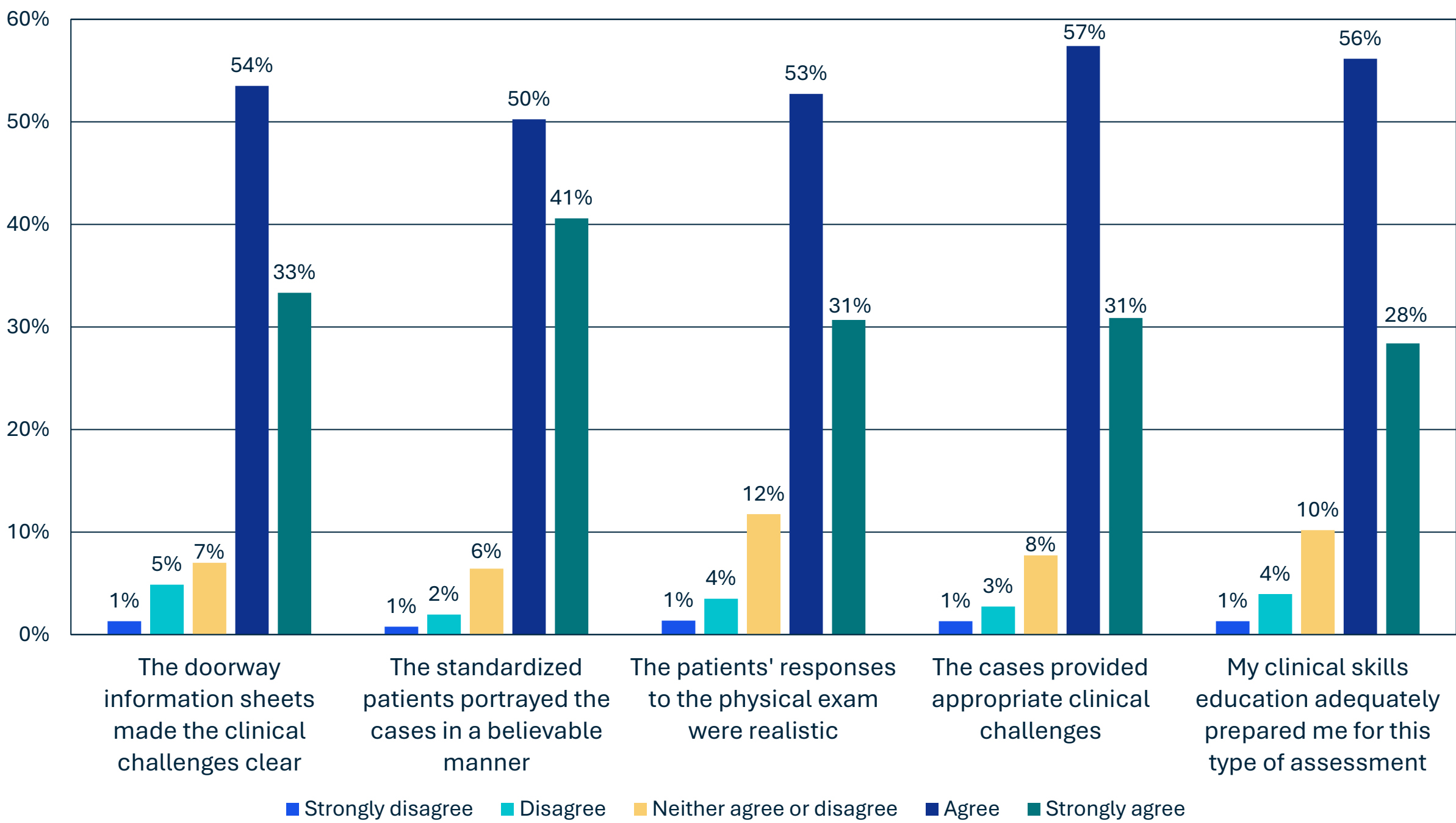


Table 1. Student feedback from Phase 2

## Results

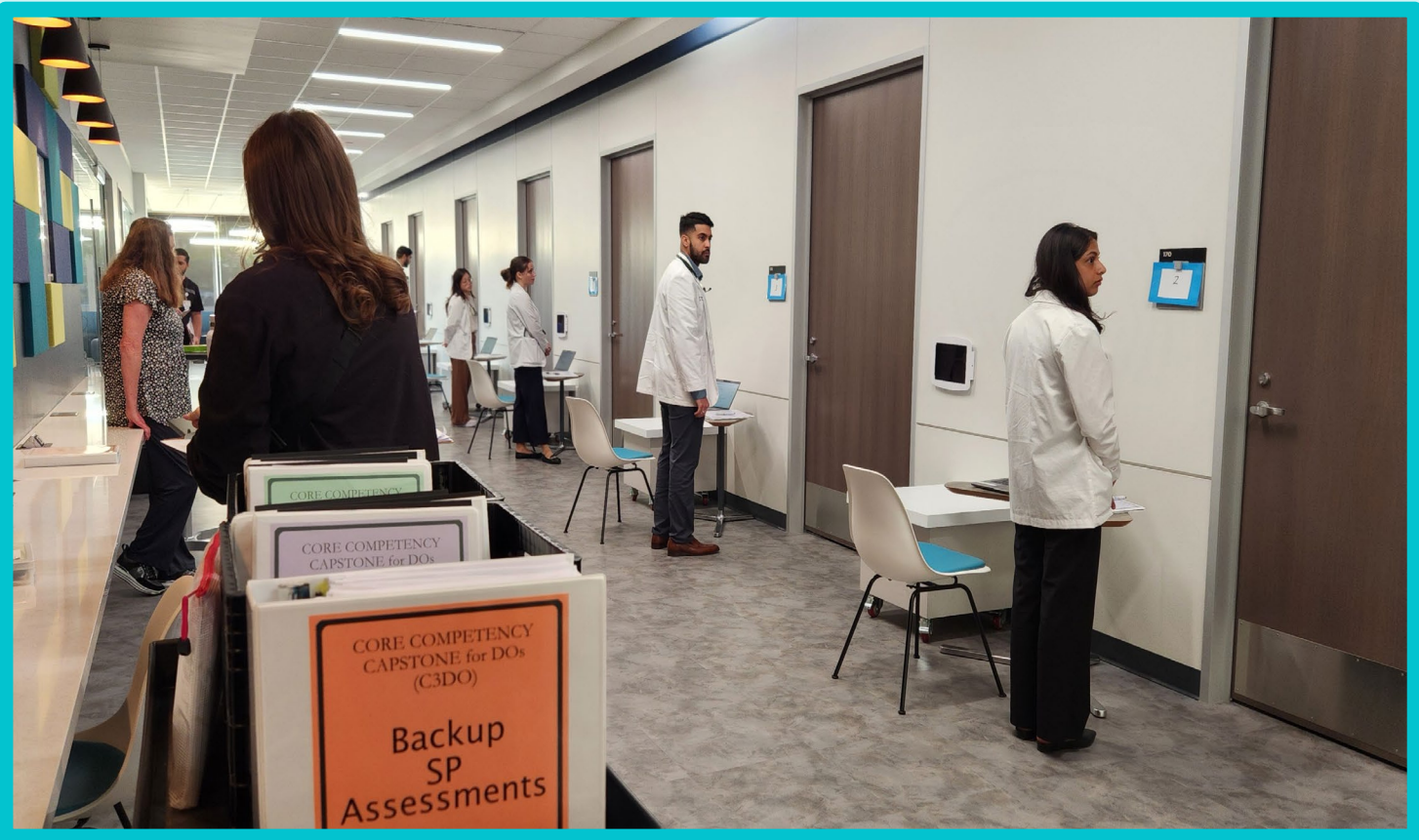
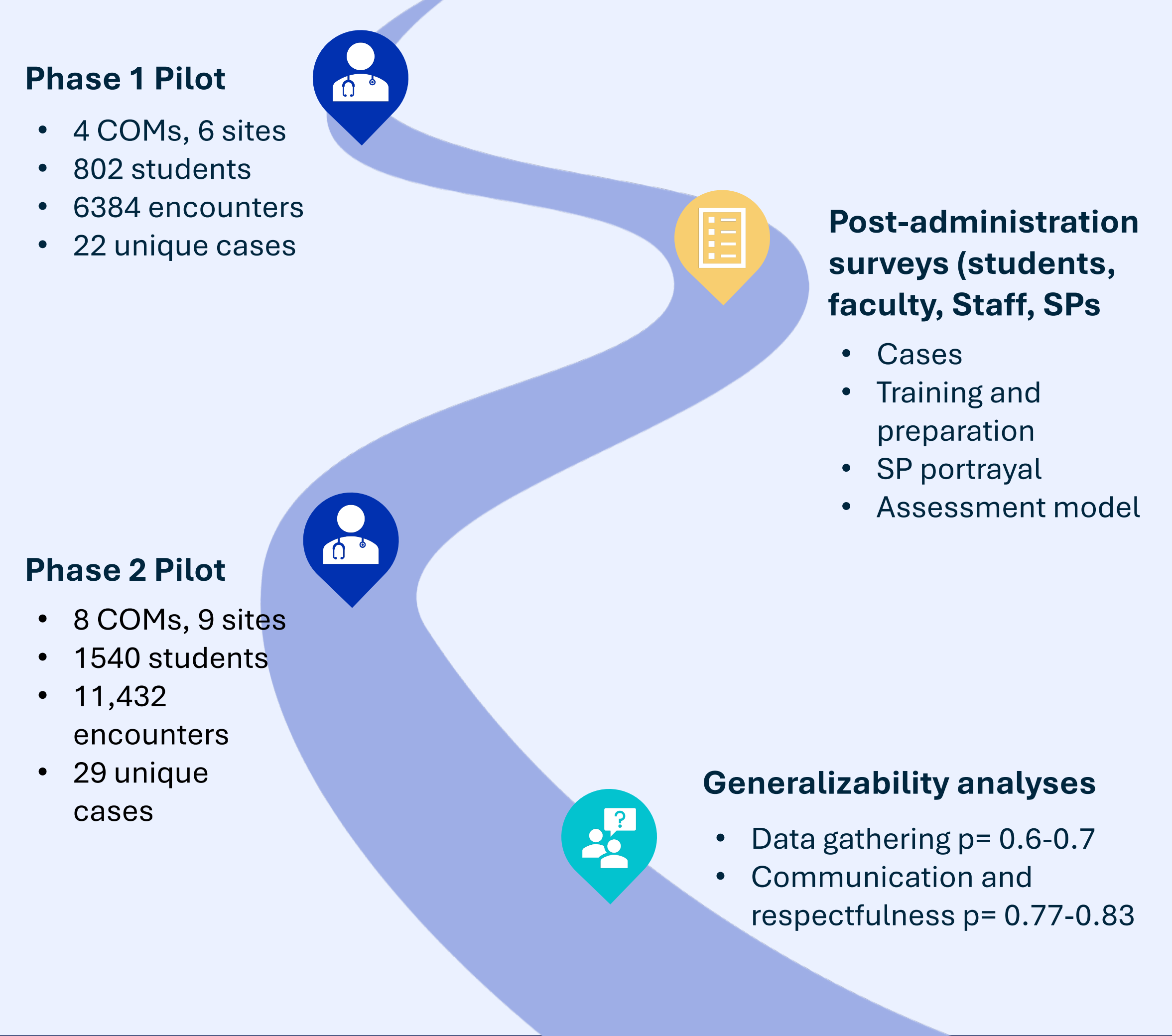


Figure 1. C3DO at a college of osteopathic medicine



Figure 2. Student with standardized patient

## Feedback (Phases 1 and 2)

### STUDENTS

*I was able to practice all aspects of becoming an osteopathic physician including history, preventative care, physical exam and OMM. "*

*"This assessment hits all the core components of a solid foundation in medicine practice. Good gauge of where I am at and what I need to work on."*

### COM FACULTY

*Thank you so much! This has been an amazing experience. Your team has been wonderful to work with throughout this Pilot. We truly believe in the importance of this work and look forward to all that we learn. We look forward to feedback and improving our process. It is a great time to be a DO!*

## Discussion

Phase 1 provided evidence for the feasibility for the C3DO model, and feedback from colleges and students was incorporated into changes for Phase 2. Phase 2 provided data to quantify measurement error in the component scores, document stakeholder “buy in”, establish efficient data transfer protocols, modify and improve scoring, collect data to help inform a national standard, and supply additional information to support the validity of the scores. Students, for the most part, gained value from participation in the activity.

Measures of training of SPs and proctors allowed for an understanding how SP portrayal and scoring could be standardized across all schools. Our data show that shared understanding is achievable in training, and the results in the CARE scoring show it is achievable in scoring as well. There are some differences in the case checklist scoring, have provided guidance for improved case development, training protocols (addition of video examples, more practice opportunities for scoring).

OMT scoring had similar results to the COMLEX Level 2-PE, limited by the number of encounters. Post encounter clinical reasoning items are improved from Phase 1; additional quality assurance and key validation is performed on existing items, and item improvements have been instituted in Phase 3.

## Conclusion

C3DO model is a feasible standardized osteopathic clinical skills examination at COMs. Positive student experience, school faculty and staff development, and reliability of communication scores highlighted the validity of the model. Fine tuning case and SP training protocols, OMT physician examiner procedures, data collection, and clinical reasoning development will improve the reliability of the assessment measures and allow for national standard setting in 2026.

### The assessment allowed me to demonstrate my skills in...

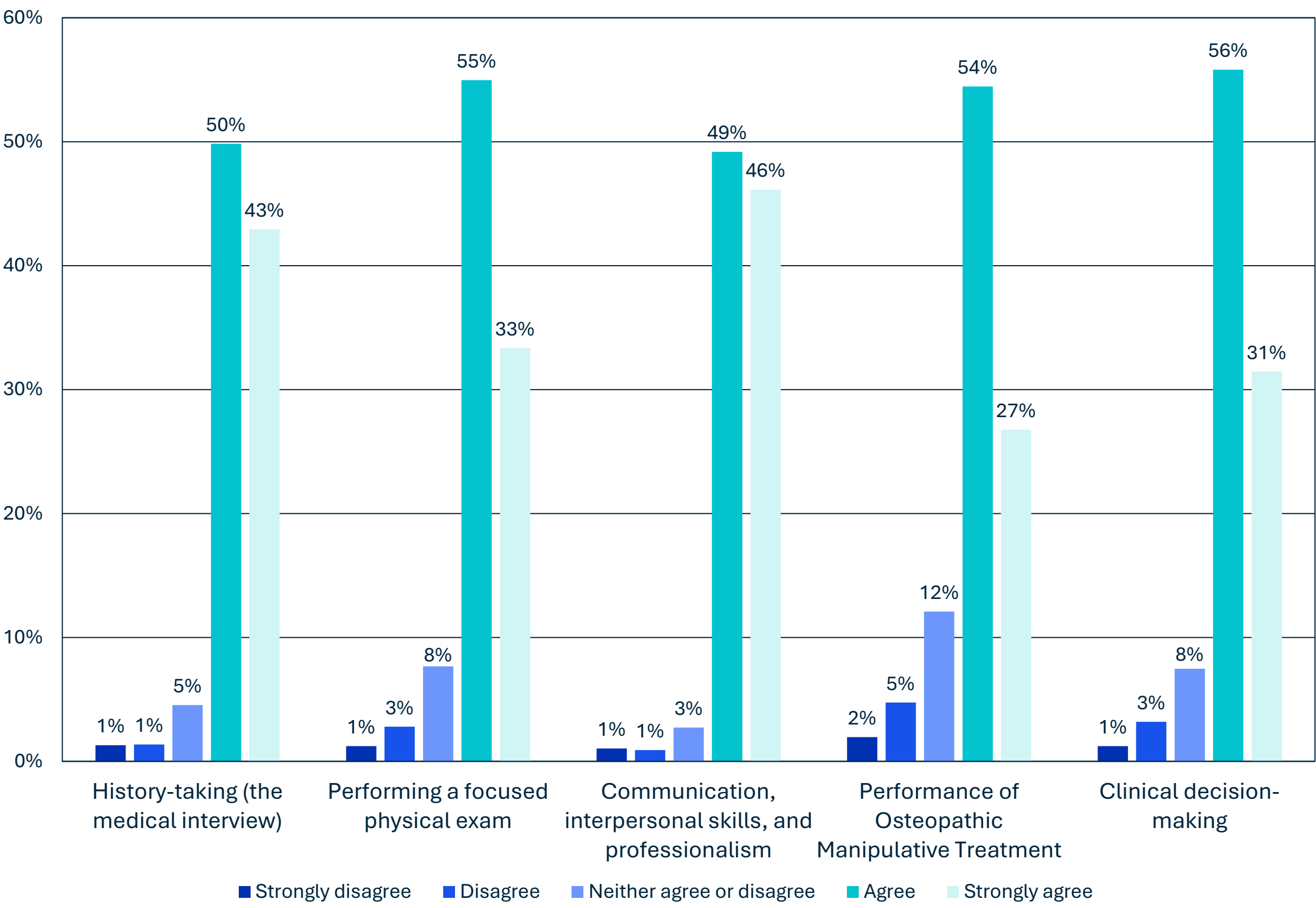


Table 2. Assessment model Phase 2 feedback

## Contact

Jeanne M. Sandella, DO  
NBOME  
Email: [jsandella@nbome.org](mailto:jsandella@nbome.org)  
Website: [www.nbome.org](http://www.nbome.org)  
Phone: 866.479.6828

## References

1. Joint statement from the osteopathic community. News release. National Board of Osteopathic Medical Examiners. June 5, 2020. Updated February 17, 2021. <https://www.nbome.org/covid-19-resources/joint-statement-osteopathic-community/>.
2. Report of the Special Commission on Osteopathic Medical Licensure Assessment. June 2022. <https://www.nbome.org/special-commission-on-osteopathic-medical-licensure-assessment/>. Accessed April 2, 2024.
3. John JT, Gowda D, Schlar S, Hojsak J, Milan F, and Auerbach L. "After the Discontinuation of Step 2 CS: A Collaborative Statement from the Directors of Clinical Skills Education (DOCS)." Teaching and Learning in Medicine 35, no. 2 (2023): 218–23. doi:10.1080/10401334.2022.2039154.
4. Chi J, Hosamani P, Verghese A, Elder A. "Don't Clinical Skills Matter? We need a new Step 2 Exam Now!" Medscape March 04, 2021.
5. Boulet JR, Sandella JM, Gimpel JR, and LaBaere R. "Assessing fundamental clinical skills of osteopathic medical students" *Journal of Osteopathic Medicine*, 2025. <https://doi.org/10.1515/jom-2024-0225>