The purpose of this observational study was to test the hypothesis that voluntary participation in the MOCA Minute program is associated with improved performance in the subsequent MOCA Cognitive Examination when compared with the performance of individuals who do not participate.

PHASE 1 ANALYSIS:
- 616 first time MOCA Exam takers in July 2014
- 280 diplomates not enrolled in MOCA Minute who took the July 2014 MOCA Exam for the first time

PHASE 2 ANALYSIS:
- 684 first time MOCA Exam takers in January 2015
- 341 diplomates not enrolled in MOCA Minute who took the January 2015 MOCA Exam for the first time

RESULTS
- In Phase 1, the July 2014 MOCA Examination score was higher for those who passed their primary certification Part 1 and Part 2 exams on their first attempt, for male anesthesiologists, for American medical graduates, and for younger anesthesiologists.
- Controlling for these variables in the multiple regression, those who actively participating in the MOCA Minute (answered 10 or more questions) scored 9.9 points higher (95% CI 0.8-18.9) than those who were not enrolled on the July 2014 exam including 165 items not related to the MOCA Minute topics.
- Performance on the items that covered the MOCA Minute topics was also significantly higher among the actively participating group than the not enrolled group (7.4 vs. 6.1 correct answers, p<0.0001).
- In Phase 2, those who actively participated scored 9.3 points (95% CI 2.3-16.3) higher on the January 2015 examination compared with those not enrolled, controlling for the same covariates as in Phase 1.

SIGNIFICANCE
- Active voluntary participation in the MOCA Minute was independently associated with subsequent better performance on the MOCA Examination.
- MOCA Minute features spaced study, frequent assessment that requires information retrieval, interleaving topics, and immediate feedback with targeted learning resources, which all point to potential benefit to learning.
- MOCA Minute has the ability to customize learning to practice by allowing diplomates to designate their primary practice areas and focus questions specific to those areas, to rapidly disseminate new knowledge through questions addressing topics of emerging clinical relevance, and to provide opportunities for intensive longitudinal assessment of diplomate knowledge that could be used to identify gaps in knowledge.
- Survey data shows that more than 80% of diplomates perceived MOCA Minute positively.
- Adoption of MOCA Minute type of intensive longitudinal assessment model across the entire continuum of medical education could substantially transform how all physicians acquire and maintain practice-specific knowledge throughout their professional lives.