Outputs

1. Evaluate established frameworks and their ability to be utilized to demonstrate outcomes of the physician of 2035+? (i.e., ACGME competencies, Entrustable Professional Activities (EPAs), CanMEDS, others)

   The relevant literature was reviewed to research and evaluate the following five established frameworks: GME Milestones, RIME, EPAs, CanMEDS, and PROFILES. The following provides a brief description of each framework and its pros and cons.

   1. GME Milestones
      a. Description: Developmental approach based on ACGME competencies, anchors contain a descriptor of a specific behavior or skill that a learner demonstrates on a 1-5 scale.
      b. Pros: Because Milestones are widely used to assess residents, the framework is well known in the GME world and would not require much training of faculty. Additional pros include that Milestones employ a developmental approach that allows learners to be tracked over time.
      c. Cons: The group felt that Milestones represent more of a concept than a guide and that extensive customization would be needed for use in UME.
   2. RIME
      a. Description: Synthetic framework in which students combine Knowledge/Skills/Attitude to perform a task.
      b. Pros: Useful for formative feedback provided by senior educators.
      c. Cons: May require significant faculty development. Does not capture all domains of student development
   3. EPAs
      a. Description: Synthetic framework that operationalizes, “How far away are you comfortable being while supervising this trainee?"
      b. Pros: There is significant interest and adoption of this framework in the GME sphere. Therefore, faculty and residents are becoming more familiar with it. Employs a developmental approach.
      c. Cons: Can be subject to bias. Faculty felt that students did not have enough experience for significant entrustability without direct supervision.
   4. CANMeds
      a. Seeks to produce competent physicians who emulate 7 roles: 1) Medical Expert, 2)Professional, 3) Communicator, 4) Collaborator, 5) Leader, 6) Health Advocate, 7) Scholar
      b. Pros: Focuses on quality of patient care
      c. Cons: Too theoretical, subjective, impractical, not easily measurable or concrete
   5. PROFILES

a. Defines the endpoint of UME as "what a resident needs to know and be able to do on their first day of residency." Three sections: competencies adapted from CanMEDS, 9 EPAs, and 265 generic clinical situations that a resident should be able to manage
b. Pros: Begins with the end in mind, focus on critical thinking and communication
c. Cons: It is relatively obscure and extremely complicated.

Overall Recommendation: No one framework fits ZSOM's current needs. However, many of these frameworks have useful, practical components that may be combined to create a framework to evaluate students. Time and effort for faculty development should be taken into consideration.

2. What methods are used/available in industries outside of medicine to showcase evidence of skills and can help identify applicants to medical school with a foundation for attributes from the Fall Retreat? Are there innovative methods to demonstrate a student's character?

The group evaluated 3 industries outside of Medicine: the Sports, Acting, and Consulting industries. Both the Sports and Acting industries heavily rely on video taping to both evaluate applicants and showcase skills of athletes and actors. The group therefore considered the utility of reviewing video tapes to screen applicants to ZSOM as well as providing videos to Program Directors as part of our students' residency applications.

Reviewing videos may be useful in screening applicants to the school. Applicants would need to be given guidelines by which to create videos with a specific goal in mind.

The discussion mainly centered around the use of videos for students' residency applications. There was a general consensus that the school needs an improved means by which to showcase our students outstanding Communications skills, in particular, and that video taping patient interactions may be an effective way to do so. However, it was strongly felt that PDs do not have the time and therefore will not make the effort to review video tapes. Perhaps written comments from patients could serve as a surrogate.

Many companies in the Consulting industry ask applicants to play a video game as part of the application process. To succeed in this game, applicants require skills that the industry highly values. The group considered this from both an applicant and prospective resident perspective. While potentially valuable in screening applicants, the investment did not seem worth potential measurable outcome, particularly as we expect students to learn over time. We did not think that PDs would consider the results of such an exercise unless the experience was standardized across all or most US medical students. There are no plans for that to occur in the near future.

The Zarb School of Business uses AI technology to measure compassion and empathy. The group felt that this is worth looking into.

Overall Recommendation: Adding video tapes or a gamifying element to our students' residency applications would likely not be favored well by PDs. The group agreed that our students' unique skills, such as outstanding communication skills and interpretation of imaging, need to be highlighted in the MSPE.

3. For UME programs that have pass/fail clerkships, what information do those programs provide to GME programs? What are the pros and cons of making clerkships pass/fail?

There is very little available literature on this topic. Therefore, the PDs in the group reached out to schools that they know to be P/F in 3rd year and reviewed MSPEs of applicants from P/F schools. Mostly, information provided to GME programs from P/F schools consists of a litany of comments, often unedited, that were described by multiple PDs as "mostly useless word vomit." The comments are often not synthesized and were felt to be too numerous and unorganized to carefully read. Generally, the comments consisted of too much information without stratifying students and are subjective. Some schools provide cohesive portfolios on students. While these were found to be preferable to comments, they were often too long for PDs to read and did not provide objective screening data on students in the manner that grades function. The consensus was that P/F schools need to provide a synthesized, concise view of each applicant that PDs can quickly review to decide whether or not to offer that applicant an interview.

Most P/F schools do report some grades in the MSPE, namely passing Shelf exam scores and 4th year Acting or Sub Internship grades.

Pros of making clerkships Pass/Fail included:

1. Mitigating bias in assessment thereby equalizing the playing field for students of various ethnic and socioeconomic backgrounds.
2. Students would likely take more risks in asking questions and attempting new skills if they were not under the constant pressure of being graded.
3. Students could concentrate more on spending time with patients and their teams without the constant pressure of studying for exams. This is particularly true since Step 1 became P/F placing even more emphasis on clerkship grades.
4. Feedback is generally known to be of a higher quality when given in a formative manner.

Cons of making clerkships Pass/Fail include:

1. The group strongly felt that PDs want and require PDs objective, stratified, concise data to evaluate applicants.
2. Grades are needed to provide such data.
3. With one or two exceptions, the students and faculty in the group felt that some form of 3rd year grades is needed for our students to be competitive when applying to residency.

Overall Recommendation: Until there is a concise, stratified, objective manner to describe students to residency programs without grades, some form of 3rd year grading should remain in place.