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Executive Summary

AAMC is committed to helping its members achieve a system of medical education that, through continual renewal and innovation, prepares physicians and scientists to meet the nation's evolving health needs. As the gateway to medical school, admissions processes and practices must align with this goal. However, medical schools face a significant challenge: How to efficiently identify and consider this important information during the screening stage when with such a high volume of applications. In response to this challenge, the AAMC created the Admissions Initiative in summer 2011. The Admissions Initiative’s main objective, over the next few years, is to investigate, test and deploy a measurement instrument (or instruments) that will provide medical schools with better and timely information about the core competencies that entering medical students must demonstrate to be successful in medical school and as future physicians.

One of the instruments under investigation is standardized evaluations. This instrument, often referred to as standardized letters, would collect information about each applicant’s demonstrations of these competencies from multiple individuals who have worked with him/her. To learn more about how the current letters of evaluation process and better understand how admissions committees currently use them, we surveyed admissions contacts in all MD-granting U.S. medical schools. The final sample was representative of MD-granting U.S. medical schools (response rate = 70%). Our key findings included the following:

- Over sixty percent of respondents indicated that their admissions committees were “satisfied”, “very satisfied”, or “extremely satisfied” with the quality of information provided in current letters;
- 78% of respondents indicated that their admissions committees use information from letters to decide whom to interview;
- 75% of respondents indicated that providing letter writers with a centralized set of instructions would be “useful”, “very useful” or “extremely useful”, while 74% indicated that providing standardized evaluations that include both ratings and narrative responses would be “useful”, “very useful” or “extremely useful”;
- 85% agreed to “some extent” or to a “large extent” with the statement, “My school would be likely to consider this tool in its screening process,” wherein “this tool” is a standardized evaluation that includes both ratings and narrative responses.
- 84% indicated that their school is not currently providing letter writers with guidance or instructions.

Based on survey results, we determined we had two options before us: (1) proceed with a standardized evaluation that includes both ratings and narrative response, or (2) introduce shared instructions for all letter writers. In addition to survey findings, we took into consideration the context in which a decision about the letters process is being made. Key elements within this context include:

- Undergraduate students and their pre-health advisors are currently in the process of preparing for MCAT<sup>2015</sup>;
- We have asked medical schools to reconsider their prerequisite courses in order to create the least restrictive path to medical school;
- Pre-health advisors would welcome centralized instructions, but have many concerns about standardized evaluations;
We determined that the relatively high level of satisfaction with current letters, when coupled with the significant flux in medical school requirements—including MCAT<sup>2015</sup>—that will impact students and their advisors over the next few years, indicates that the time is not ripe for standardized evaluations. We recommended to the GSA Committee on Admissions (COA) that we instead proceed with “shared” (or standardized) guidelines for authors of letters of evaluation. The COA endorsed our recommendation. Our next steps on this project include:

- Assembling a working group comprised of admissions officers, pre-health advisors, and AAMC staff to establish a standard set of instructions/guidelines for letter writers;
- Submitting the draft guidelines to the COA, seeking its endorsement;
- Sharing this draft with the admissions community to obtain feedback and support;
- Publishing these guidelines in time for the 2014 entering class admissions cycle;
- Resurveying medical schools once these guidelines have been in place for two years; and
- Considering the adoption of standardized evaluations at that time, based on survey results.
2012 Study of Letters of Evaluation in Medical School Admissions

Introduction

AAMC is committed to helping its members achieve a system of medical education that, through continual renewal and innovation, prepares physicians and scientists to meet the nation's evolving health needs. As the gateway to medical school, admissions processes and practices must evolve as well. Medical schools want to know more about the entire applicant—not only academics, but also each applicant’s experiences and attributes. However, medical schools face a significant challenge: How to efficiently identify and consider this important information during the screening stage when with such a high volume of applications. Many of our medical schools are interested in and/or trying to employ holistic review principles, but tell us that they need better tools and data about applicants that can be used more efficiently and earlier in the application.

In response to these challenges, the AAMC created the Admissions Initiative in summer 2011. Our goal, over the next few years, is to investigate, test and deploy a measurement instrument (or instruments) that will provide medical schools with better and timely information about the core competencies that entering medical students must demonstrate to be successful in medical school and as future physicians.

One of the instruments we are investigating is standardized evaluations. This instrument, often referred to as standardized letters, would collect information about each applicant’s demonstrations of these competencies from multiple individuals who have worked with him/her. The first step in our investigation was to conduct a survey about the current letters of evaluation process to understand how admissions committees currently use them. This report summarizes the methodology and results of the letters of evaluation survey.

Method

In the spring of 2012, AAMC staff administered an online survey to collect information about current admissions policies and practices related to letters of evaluation and to assess interest in possible revisions to the letters process.

Participants

Admissions Deans from all the U.S. medical schools (or special programs) with unique admissions offices (n = 142) were invited to participate in the survey via e-mail. Of those invited, 99 admissions deans (or designees) responded to the survey (response rate = 70%)1. The sample included 62 public and 37 private institutions. Thirty-eight percent of responding schools were from the southern region; 29 percent were from the northern region; 21 percent were from the central region; and 11 percent were from the western region.2

1 Two medical schools declined to participate in this survey because their admissions processes were too new.
2 Institutional data were not collected on the letters survey. These data were drawn from the AAMC’s Data Warehouse and were linked to survey responses.
Procedure

The MCAT admissions survey was administered online and took approximately 30 minutes to complete. As is standard practice with on-line surveys (Kraut, 1996; Dillman, 2000), a pre-notice e-mail that introduced the survey to admissions deans was sent three days prior to the official survey invitation. On April 10, 2012, invitations to participate in the admissions survey were distributed via e-mail. The e-mail invitation contained a brief description of the survey and provided a secure, individualized web link for each participant. Participants responded to the survey by selecting the link and responding to the first survey question.

In order to maximize the response rate, and at one-week intervals, three automatic reminder e-mails were sent to admissions deans who had not responded to the survey. The survey was active for about one month from April 10, 2012 to May 7, 2012.

Survey Content

The letters survey was divided into three sections. In the Current Letters Process section of the survey, respondents were asked to describe how letters were used for the AMCAS 2012 cycle, including a description of the process, characteristics measured, and level of satisfaction with information provided by letters. In the Future Letters section, respondents were asked to describe and evaluate the likely utility of possible enhancements to letters. In the Example of Future Letters section, respondents were given a mockup of an example of a standardized evaluation and were asked to evaluate its likely utility to their future admissions process. Respondents also were given an opportunity to provide narrative feedback about the current letters process and to make suggestions for the future letters throughout the survey.

Response Scales

Importance, satisfaction and usefulness ratings were made on 5-point Likert-type response scales, ranging from 1 = Not important/satisfied/useful to 5 = Extremely important/satisfied/useful. Ratings of the extent to which changes to the letters process would change add information and change the current admissions process were made on a 4-point Likert-type response scale, ranging from 1 = Not at all to 4 = To a large extent.

These data were analyzed by calculating percentages, means, and standard deviations. While there has been debate in the literature about the appropriateness of treating ratings from Likert-type scales as interval data, it is common practice in contemporary social science research to do so in computing descriptive and inferential statistics. Moreover, several empirical studies have demonstrated that the use of such data does not affect Type I or Type II error rates and that correlations and other parametric tests are robust to treating ordinal, Likert-type data as interval data (See Binder; 1984; Gaito, 1980; Jaccard & Wan, 1996; Zumbo and Zimmerman, 1993 for review).

Results
The Current Letters Process

This section summarizes survey results about how letters of evaluation are used in the current medical school admissions processes. It is organized by broad research question.

How did admission committees use letters of evaluation?

All admissions officers who responded to this survey reported that their schools use letters of evaluation in the admissions process. Eighty-five percent required applicants to submit committee or individual letters; the majority of these schools required three individual letters.

As shown in Table 1, admissions committees use information from letters to decide whom to interview and admit. This information was rated as important to both decisions. These data may explain why many medical schools (and thus applicants) prefer to receive letters earlier in the process than they have in the past. Private schools (86%) were more likely to use letters to decide whom to interview than were public schools (74%). In addition, private schools also rated letters as more important to their decision about whom to interview (Private = 4.13, Public = 3.64, F(1, 76) = 7.01, p<.05 η² = .09) and whom to accept (Private = 4.43, Public = 3.95, F(1, 90) = 7.36, p<.05, η² = .08).

Seventy-six percent of respondents indicated that their schools have a deadline for receiving letters of evaluation. Of those that have a deadline, most wait for all letters to be submitted before making decisions about whom to invite to interview (87%) and whom to accept (99%).

Table 1. Use and Importance of Letters of Evaluation at each Stage of the Admissions Process.

<table>
<thead>
<tr>
<th>Data Used</th>
<th>Percentage of responding schools that use letters to make a decision at each stage</th>
<th>Importance of letters to each selection decision</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean (SD)</td>
</tr>
<tr>
<td>Select secondary applicants</td>
<td>10</td>
<td>2.2 (.14)</td>
</tr>
<tr>
<td>Invite interviewees</td>
<td>78</td>
<td>3.8 (.83)</td>
</tr>
<tr>
<td>Offer acceptances</td>
<td>94</td>
<td>4.1 (.85)</td>
</tr>
</tbody>
</table>

Table Notes:
1. n = 99 for the percentage of schools that use letters to make a selection decision at each stage.
2. Results in this column based only on schools that use letters to make a selection decision at each stage: n = 10 for deciding whom to invite to submit secondary applications, n = 78 for deciding whom to invite to interview, and n = 92 for deciding whom to admit. Ratings were made on a 5-point Likert-type response scale ranging from 1 = Not important to 5 = Extremely important.

Admissions committee members (90%) and staff (65%) were responsible for reading letters at most schools. At most schools, three or more people reviewed each applicant’s letters. Most respondents indicated that committee members and/or staff read at least 50 percent of the letters received each admissions cycle; however, they spent less than 15 minutes reading each applicant’s letters. At majority of medical schools, less than 50 percent of the letters of evaluation resulted in accepting or rejecting an applicant.
What type of information were letters of evaluation intended to provide?

Respondents indicated that their schools do not provide any instructions to letters writers about letters (84%). About 11 percent of schools provide some guidance about the desired content of letters. Four percent ask letter writers to evaluate applicants on several dimensions and provide narrative descriptions.

As shown in Figure 1, the majority of schools use letters to evaluate personal competencies: 93% use them to identify desirable personal competencies and 90% use them to identify “red flags” related to personal competencies. However, more than 60% of schools also use letters to provide information about applicants’ academic “red flags”, academic readiness, and to provide context for interpreting UGPA and MCAT scores.

Figure 1. Purposes of Current Letters

![Figure 1. Purposes of Current Letters](image)

Figure Notes.
1. \( n = 98-99 \) medical school responses
2. Percentages do not add to 100% because respondents could select more than one option.

Consistent with those purposes, results show that more than ninety percent of schools use letters of evaluation to learn about applicants’ social and interpersonal skills, reliability and dependability, teamwork, and integrity and ethics and more than 80 percent use them to learn about applicants’ academic readiness for medical school (Table 2). Interestingly, public schools (87%) were more likely to use letters to evaluate applicants’ academic readiness than were private schools (76%).
Table 2. Percentage of Schools that use Letters to Evaluate each Competency

<table>
<thead>
<tr>
<th>Data Used</th>
<th>Percentage of responding schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social and interpersonal</td>
<td>98</td>
</tr>
<tr>
<td>Reliability and dependability</td>
<td>96</td>
</tr>
<tr>
<td>Teamwork</td>
<td>95</td>
</tr>
<tr>
<td>Integrity and ethics</td>
<td>94</td>
</tr>
<tr>
<td>Service orientation</td>
<td>88</td>
</tr>
<tr>
<td>Resilience and adaptability</td>
<td>87</td>
</tr>
<tr>
<td>Academic readiness for medical school</td>
<td>83</td>
</tr>
<tr>
<td>Oral communication</td>
<td>80</td>
</tr>
<tr>
<td>Capacity for improvement</td>
<td>69</td>
</tr>
<tr>
<td>Cultural competence</td>
<td>65</td>
</tr>
</tbody>
</table>

*Table Notes.*
1. n = 98-99 medical school responses
2. Percentages do not add to 100% because respondents could select more than one option.

How did admissions committees evaluate letters of evaluation?

As shown in Figure 2, admissions committees used several different approaches to evaluate letters. The most common approach was to make overall evaluations of applicants using categorical ratings (e.g., positive, neutral, etc.); less than 30% percent of admissions committees evaluated letters by identifying “red flags” or “plus factors”, or by rating applicants on dimensions using a numeric scale, or by rating applicants’ overall “fit”.

Figure 2. Current Methods used to Evaluate Letters

*Figure Notes.*
1. n = 99 medical school responses
2. Percentages do not add to 100% because respondents could select more than one option.
How satisfied were admission committees with current letters?

As shown in Figure 3, over sixty percent of admissions committees were “satisfied”, “very satisfied”, or “extremely satisfied” with the quality of information provided in current letters about academic readiness, personal competencies, and applicants’ overall “fit” with their medical school.

**Figure 3. Satisfaction with the Quality of Information Provided by Current Letters.**

*Figure Notes.*

1. $n = 94$ for academic readiness; $n = 97$ for personal competencies and overall “fit”.
2. Percentages do not add to 100% because respondents could select more than one option.
Ninety-eight percent of respondents indicated that their schools collect information about letter writers. As shown in Figure 4, admission committees were slightly more satisfied with the quality of information provided by letters written by pre-health advisors compared with those written by others.

Figure 4. Satisfaction with the Information Provided by Letter Writers.

<table>
<thead>
<tr>
<th></th>
<th>Mean Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-health advisors</td>
<td>3.5</td>
</tr>
<tr>
<td>Volunteer supervisors</td>
<td>3.2</td>
</tr>
<tr>
<td>Research advisors</td>
<td>3.1</td>
</tr>
<tr>
<td>Faculty</td>
<td>3.0</td>
</tr>
<tr>
<td>Employers</td>
<td>2.9</td>
</tr>
</tbody>
</table>

Table Notes:
1. \( n = 79 \) for pre-health advisors, \( n = 45 \) for volunteer supervisors, \( n = 56 \) for research advisors, \( n = 70 \) for faculty, and \( n = 35 \) for employers.
2. Standard deviations ranged from .74 to .90.
3. Ratings were made on a 5-point Likert-type response scale ranging from 1 = Not satisfied to 5 = Extremely satisfied.

The Future Letters Process

This section summarizes survey results about future direction for letters of evaluation. It is organized by broad research question.

What processes could be used to improve letters?

Findings were mixed with respect to processes that could be used to improve letters. As shown in Figure 5, respondents indicated that providing general instructions or requiring writers to provide ratings and narrative descriptions about core competencies would make letters more useful. Respondents did not think that requiring letter writers to write narratives alone or provide ratings alone would result in useful information. In addition, respondents doubted the utility of various strategies to increase the accuracy of letters (Table 3).
Figure 5. Mean Ratings of the Extent to which each Enhancement would Improve the Usefulness of Letters of Evaluation.

Table 3. Percentage of Schools Reporting that each Strategy would Increase their Confidence in the Accuracy of Information Provided by Letters of Evaluation.

<table>
<thead>
<tr>
<th>Data Used</th>
<th>Percentage of schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional feedback to undergraduate institutions</td>
<td>63</td>
</tr>
<tr>
<td>Usefulness ratings provided directly to the writer</td>
<td>48</td>
</tr>
<tr>
<td>National data on applicants</td>
<td>44</td>
</tr>
</tbody>
</table>

Table Notes:
1. n = 89-96
2. Percentages do not add to 100% because respondents could select more than one option.

How would your school react to standardized letters of evaluation?

Seventy-five percent of medical schools reported that they would adopt standardized letters of evaluation in the majority of medical schools adopted them. However, the likelihood of adopting standardized letters varied by type of school, with public schools (81%) being more likely to adopt letters if the majority of medical schools adopted them than private schools (63%).

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Example of a Standardized Evaluation

In this section of the survey, respondents were provided with background information and an example of a possible standardized evaluation (Appendix A). Then, they were asked to respond to a series of questions with the example in mind. This section summarizes responses to questions about the example standardized evaluation.

As shown in Figure 6, eighty-four percent of respondents reported that their schools would be likely to consider this tool in its screening process. Similarly, 74 percent indicated it would add unique information to the screening process “to some extent” or “to a large extent”.

Figure 6. Reactions to an Example Standardized Evaluation.

Figure Notes.
1. n = 92 medical school responses.
Conclusion

As part of the AAMC Admissions Initiative, we are committed to investigating new tools and data about applicants that can be used to support medical schools in their attempts to learn about competencies more efficiently and earlier in the application process.

One of our first steps in investigating new tools was to conduct a survey of admissions officers about the current letters process. Survey data indicated that most admissions officers are satisfied with the quality of information provided in current letters and use them to decide whom to interview. However, may also indicated that letters could be improved by either providing letter writers with a centralized set of instructions or providing standardized evaluations that include both ratings and narrative response.

Based on survey results, we determined we had two options before us: (1) proceed with a standardized evaluation that includes both ratings and narrative response, or (2) introduce shared instructions for all letter writers. In addition to survey findings, we took into consideration the context in which a decision about the letters process is being made. Key elements within this context include:

- Undergraduate students and their pre-health advisors are currently in the process of preparing for MCAT<sup>2015</sup>;
- We have asked medical schools to reconsider their prerequisite courses in order to create the least restrictive path to medical school;
- Pre-health advisors would welcome centralized instructions, but have many concerns about standardized evaluations;

We determined that the relatively high level of satisfaction with current letters, when coupled with the significant flux in medical school requirements—including MCAT<sup>2015</sup>—that will impact students and their advisors over the next few years, indicates that the time is not ripe for standardized evaluations, and recommended to the GSA Committee on Admissions (COA) that we instead proceed with “shared” (or standardized) guidelines for authors of letters of evaluation. The COA endorsed our recommendation. Our next steps on this project include:

- Assembling a working group comprised of admissions officers, pre-health advisors, and AAMC staff to establish a standard set of instructions/guidelines for letter writers;
- Submitting the draft guidelines to the COA, seeking its endorsement;
- Sharing this draft with the admissions community to obtain feedback and support;
- Publishing these guidelines in time for the 2014 entering class admissions cycle;
- Resurveying medical schools once these guidelines have been in place for two years; and
- Considering the adoption of standardized evaluations at that time, based on survey results.
References


Appendix A

Example of a Standardized Evaluation

**Description:** Evaluators are asked to evaluate applicants on ten core competencies required for entering medical students by (a) rating each applicant’s level of performance and (b) describing the applicants’ level of performance on each of the ten core competencies. A definition of each competency is provided to the letter writer. The following competencies are assessed: Integrity and Ethics, Reliability and Dependability, Service Orientation, Social and Interpersonal Skills, Capacity for Improvement, Resilience and Adaptability, Cultural Competence, Oral Communication, Teamwork, and Academic Readiness for Medical School.

**Letter writers:** Evaluators can include a pre-health committee letter, faculty, pre-health advisors, or others who have had the opportunity to observe applicants demonstrate these competencies. *(If the community decides to develop this option, AAMC would work with medical schools to determine which types of raters are required.)*

**Number of letters:** A minimum of three evaluations is required. *(If the community decides to develop this option, AAMC would work with medical schools to determine the minimum number of raters required.)*

**Submission:** Evaluations are submitted and provided to medical schools via AMCAS.

**Scoring:** Evaluations are scored; ratings and full-text of each letter would be provided to each medical school; summary information comparing ratings to other applicants will be provided.
Example Instructions and Response (Capacity for Improvement competency only)

**FIRST:** Please rate the applicant’s ‘Capacity for Improvement’, using the behaviorally-anchored rating scale below. Make your rating by selecting the number in the “Rating” column that best represents the applicant’s level of performance.

<table>
<thead>
<tr>
<th>Rating</th>
<th>Performance Level</th>
<th>Example Standards of Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Role Model</td>
<td>Identifies his or her own knowledge and skill deficiencies and seeks out opportunities to address them. Voluntarily develops and pursues independent research ideas and questions.</td>
</tr>
<tr>
<td>3</td>
<td>Exceeds Expectations</td>
<td>Requests feedback from faculty, supervisors, etc. on strengths and weaknesses. Independently seeks out opportunities to learn new information and techniques.</td>
</tr>
<tr>
<td>2</td>
<td>Achieves Expectations</td>
<td>Sets goals for learning new knowledge and skills.</td>
</tr>
<tr>
<td>1</td>
<td>Development Needed</td>
<td>Does not participate in outside research or relevant activities.</td>
</tr>
<tr>
<td>N/A</td>
<td></td>
<td>I have not had an opportunity to observe the applicant’s performance on this competency.</td>
</tr>
</tbody>
</table>

**SECOND:** Please provide additional information about the demonstrated applicants’ level of “Capacity for Improvement.” This could include a rationale for the ratings you provided and/or examples of the applicant’s behavior which illustrates the rating you provided.

Joe demonstrated a high level of Capacity for Improvement as one of my undergraduate research assistants over the last year. After taking my Brain and Behavior course last year, he told me that he wanted to learn more about research and the role of brain in substance addiction. During his time in my lab, I’ve observed Joe demonstrate a Capacity for Improvement in several ways. He contacted me over the summer break and requested a list of articles and books to help him prepare for the research assistant position. During the school year, I observed him talking to graduate students about his ideas for new research. However, I also noticed that Joe rarely incorporated that feedback into his work. This is an area in which he will improve as he matures.