The Launch of the New MCAT Exam

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November 7, 2015
Today’s Agenda

• Overview of the 2015 testing year
• Establishing the new score scales
• Performance of 2015 examinees
• Support for educationally and economically disadvantaged students
• Questions and answers
• Using scores in 2016 selection
• Hearing from you
Overview of 2015 Testing Year
The old and new tests were administered in “2015”

- **Final admins of Old Exam**: Oct. 2014-Jan. 2015
- **New Exam Launched**: April 17
- **Released first set of scores**: June 16
- **Registration for 2016 opened**: Oct. 21
- **Last set of scores released**: Oct. 27

88,635 unique examinees with scores

59,996 unique examinees with scores
The number of unique examinees in 2015 was similar to 2014.

Unique Examinees with Scores

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>89,653</td>
<td>59,996</td>
</tr>
<tr>
<td>Old Exam</td>
<td>New Exam</td>
</tr>
</tbody>
</table>

- 20,000
- 30,000
- 40,000
- 50,000
- 60,000
- 70,000
- 80,000
- 90,000
- 100,000
The new MCAT exam was administered April through September 2015

• 15 administrations of the new exam
  • Plus 2 contingency dates: June 2 and Sept 30

• More than 65,000 exams administered with reported scores
Score reporting for the new exam

- April scores were released on June 16
- May scores released on June 30
- June – Sept administrations were back to a 30-35 day score release schedule
- All scores for the new MCAT exam were released as of October 27 … just 12 days ago!
Overall examinee satisfaction was the same as in previous years.

Examinee Satisfaction

- April - Sept 2014: 86%
- April - Sept 2015: 86%
% of examinees from groups underrepresented in medicine increased

Underrepresented in Medicine

April - Sept 2014
19%

April - Sept 2015
22%

URM= Black/African American, Hispanic, American Indian/Alaska Native, Native Hawaiian/ Other Pacific Islander
% of examinees receiving fee assistance on the MCAT exam remained the same

Fee Assistance on MCAT Exam

<table>
<thead>
<tr>
<th></th>
<th>April - Sept 2014</th>
<th>April - Sept 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage</td>
<td>6%</td>
<td>6%</td>
</tr>
</tbody>
</table>
Repeat testing

• 34% of examinees who took the new exam in 2015 had scores from old exam

• Of those examinees who took the new exam:
  • 93% took it 1x
  • 7% took it 2x
  • <1% took it 3x
Examinees prepared in a variety of ways

How did you prepare for the examination you took today?

(Select all that apply)

<table>
<thead>
<tr>
<th>Preparation Method</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Took an MCAT preparation course provided by your (or another) university or medical school</td>
<td>7%</td>
</tr>
<tr>
<td>Took an MCAT preparation course provided by a private company</td>
<td>42%</td>
</tr>
<tr>
<td>Prepared with a student study group</td>
<td>9%</td>
</tr>
<tr>
<td>Other</td>
<td>10%</td>
</tr>
</tbody>
</table>
Testing accommodations

• < 1% tested with accommodations
• Most commonly provided accommodations:
  • Extra testing time
  • Extra breaks
  • Separate testing rooms or small group settings
• Score reporting policy for those who test with extra time
  • Change took effect in March 2015 and applies to scores reported for the old and new exams
Higher volumes expected and more testing dates planned in 2016

### January – September 2016 Dates

<table>
<thead>
<tr>
<th>Month</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>22, 23</td>
</tr>
<tr>
<td>April</td>
<td>1, 23</td>
</tr>
<tr>
<td>May</td>
<td>6, 14, 20</td>
</tr>
<tr>
<td>June</td>
<td>2, 18</td>
</tr>
<tr>
<td>July</td>
<td>8, 9, 22</td>
</tr>
<tr>
<td>August</td>
<td>4, 5, 19, 20, 25</td>
</tr>
<tr>
<td>September</td>
<td>1, 9, 10</td>
</tr>
</tbody>
</table>

- Registration opened in mid-October 2015
- 20 administrations
- Expecting a larger volume of examinees
- Base fee: $305 (Fee Assistance: $115)

www.aamc.org/mcat

@AAMC_MCAT
Half of the 2016 applicants submitted new scores

Processed AMCAS Applications as of Oct 27

- 50% New MCAT Scores Only
- 29% Old MCAT Scores Only
- 19% Both Old and New MCAT Scores
- 2% Don't Have Scores
You’ve asked about applicants with new and old scores

- Percentiles on the new and old tests describe different knowledge and skills

- But it’s reasonable to expect applicants to do better on the new than the old exams because:
  - Repeaters generally do better the second time they test
  - They probably study more in between their first and second exams
  - On average, repeaters are lower scoring, so they have more room to grow
It’s likely that more 2017 applicants will submit new scores than old

- Expecting a higher volume of 2016 examinees
- Almost 80% of examinees apply with scores < 2 years old
- Some medical schools are evaluating their policies for how long they will accept old MCAT scores
New Test and Scores
Guiding questions

- Why did we develop new score scales?
- How did we set them and how well did they work?
- Why are we reporting percentile ranks?
- How well did examinees in different socio-demographic groups score?
- What else can we learn about 2015 examinees?
Why did we set new score scales?

Old Content Covered

- Biology
- Chemistry
- Physics
- Verbal reasoning
Tests how well students use what they know

New
- Biochemistry
- Psychology
- Sociology

New Emphases
- Application of knowledge
- Behavioral and sociocultural aspects of health
- Latest science on information processing

Old Content Covered
- Biology
- Chemistry
- Physics
- Verbal reasoning

Broader preparation & ability to apply knowledge!
Why did we set new score scales?

• *Standards for Educational and Psychological Testing* recommend new scales when tests change substantially
• Scores from the new test describe different knowledge and skills than scores from the old
• Scale needs new numbers so they don’t carry meaning from the old
• It was time to re-shape the distribution
Biological Sciences Scale

Mean = 8.8
New Section Scales

New MCAT Section Score
MCAT 2015 has four test sections:

- Chemical and Physical Foundations of Biological Systems
- Critical Analysis and Reasoning Skills
- Biological and Biochemical Foundations of Living Systems
- Psychological, Social, and Biological Foundations of Behavior

MCAT 2015 Total Score

472

500

528
How did we set the new scales?

• Used data from April and May examinees
• Because these examinees were atypical, we weighted their data so they represented the academic and demographic characteristics of examinees in a typical testing year
• Mapped their #--correct scores onto the new scale scores
Biological and Biochemical Foundations of Living Systems (BBLs)

Target Percentages

2015 BBLs Percentages

Mean=125
Chemical and Physical Foundations of Biological Systems (CPBS)

Target Percentages

2015 CPBS Percentages

Mean=125
Critical Analysis and Reasoning Skills (CARS)

Target Percentages

2015 CARS Percentages

Mean=125
How well did the scaling work?

- It worked well
- The section means for 2015 examinees are 125
- The total mean is 500
- The section and total distributions look good
Why Are We Reporting Percentile Ranks?

- Experience and data provided meaning for the old score scales
- In time, the same will happen for the new scores
- In the meantime, percentile ranks are helpful
- They show the percent of examinees with the same or lower scores
- They’re a good place to start in using new scores
Percentile Rank Table for the BBLs Section

<table>
<thead>
<tr>
<th>Scale Score</th>
<th>Percentile Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>132</td>
<td>100</td>
</tr>
<tr>
<td>131</td>
<td>99</td>
</tr>
<tr>
<td>130</td>
<td>97</td>
</tr>
<tr>
<td>129</td>
<td>93</td>
</tr>
<tr>
<td>128</td>
<td>87</td>
</tr>
<tr>
<td>127</td>
<td>77</td>
</tr>
<tr>
<td>126</td>
<td>67</td>
</tr>
<tr>
<td>125</td>
<td>54</td>
</tr>
<tr>
<td>124</td>
<td>44</td>
</tr>
<tr>
<td>123</td>
<td>32</td>
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<tr>
<td>122</td>
<td>21</td>
</tr>
<tr>
<td>121</td>
<td>14</td>
</tr>
<tr>
<td>120</td>
<td>7</td>
</tr>
<tr>
<td>119</td>
<td>3</td>
</tr>
<tr>
<td>118</td>
<td>1</td>
</tr>
</tbody>
</table>
Why are the percentile bands so wide?

- Percentile band for 125 goes from 45-54
- 15 score points are distributed over 100 percentile points
- Many admissions committee members didn’t use percentile bands for old scores
- But percentile band for a 9 on the old test goes from 42-56—50% wider than the new band
- Percentile bands for a total score of 500 goes from 48-51
How well did examinees in different socio-demographic groups score?
Fairness issues were front and center in designing the new exam

- Blueprint design
- Administration and scoring
- Test preparation resources
- Use of scores in admissions
Fairness played a critical role in developing test blueprints

• Test concepts widely taught at baccalaureate institutions, including minority-serving and under-resourced institutions
• Test psychology and sociology concepts like discrimination, stereotype threat, and socio-economic inequalities
• Increase attention to population health, studies of diverse cultures, and ethics
Fairness played a critical role in test administration & scoring of new exam

- Examinees have more working time per question
- The new score reports use confidence bands to describe measurement precision and score profiles to describe strengths and weaknesses
- The new score scales draw attention to the center of the scale and to applicants who might otherwise be overlooked
New MCAT total scores

MCAT total scores for exams administered April-September, 2015

Overall (mean=500; N=64,504)
MCAT Scores by Gender

MCAT Total Scores for Exams Administered in April-September 2015

Male (mean=501; N=29,125)

Female (mean=498; N=35,240)
MCAT Scores for Fee Assistance Recipients

MCAT Total Scores for Exams Administered in April-September 2015

Non-FAP (mean=500; N=60,823)

FAP (mean=495; N=3,681)
MCAT Scores by Race and Ethnicity

MCAT Total Scores for Exams Administered in April-September 2015

- White (mean=502; N=29,217)
- Black (mean=493; N=6,895)
- Hispanic (mean=495; N=6,793)
- Asian (mean=501; N=15,765)
- American Indian/Alaska Native (mean=496; N=614)
- Native Hawaiian/Pacific Islander (mean=497; N=157)
How can we think about these results?

- Within each socio-demographic group, there is wide variability in total scores
- Substantial overlap in the distribution of scores across groups
- Males perform slightly better than females
- Examinees who do not receive fee assistance perform slightly better than those who do
- Majority examinees perform better than examinees under-represented in medicine
But that’s what we saw on the old test . . .

• There’s not a good way to compare new and old scores for examinees in different groups
• But for each test, we can calculate the percent of examinees in each group who score at or above the median score for all examinees
  • Median for the new exam: 500
  • Median for the old exam (in 2014): 26
• April-September 2014 and 2015
Percent of Examinees Scoring At or Above the Median on the New MCAT Exam, by Socio-Demographic Group

Examinees Testing April-September (2015)

Gender
- Male: 57%
- Female: 46%

AAMC Fee Assistance Program
- Did Not Receive AAMC Fee Assistance: 52%
- Received AAMC Fee Assistance: 32%
Percent of Examinees Scoring At or Above the Median on the New vs. Old MCAT Exams, by Socio-Demographic Group

Examinees Testing April-September (2015 vs. 2014)

<table>
<thead>
<tr>
<th>Gender</th>
<th>New</th>
<th>Old</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>57%</td>
<td>58%</td>
</tr>
<tr>
<td>Female</td>
<td>46%</td>
<td>44%</td>
</tr>
<tr>
<td>Did Not Receive AAMC Fee Assistance</td>
<td>52%</td>
<td>52%</td>
</tr>
<tr>
<td>Received AAMC Fee Assistance</td>
<td>32%</td>
<td>33%</td>
</tr>
</tbody>
</table>
Percent of Examinees Scoring At or Above the Median on the New vs. Old MCAT Exams, by Race/Ethnicity

Examinees Testing April-September (2015 vs. 2014)

Race/Ethnicity

- White: 58% (New) vs. 57% (Old)
- Black or African American: 23% (New) vs. 22% (Old)
- Hispanic, Latino, or Spanish: 32% (New) vs. 30% (Old)
- Asian: 56% (New) vs. 56% (Old)
- American Indian or Alaska Native: 35% (New) vs. 41% (Old)
- Native Hawaiian or Other Pacific Islander: 37% (New) vs. 43% (Old)
Fairness issues were front and center in designing the new exam

• None of the many individuals and groups who worked on the new exam sought to replicate group differences on the old exam

• But despite this and so far, differences on the new exam are similar to those on the old
Last score release was 12 days ago

There’s more to learn
MCAT Validity Studies Committee will study differences in preparation and performance

Plans for Studying the Validity of the New MCAT Exam

Monday, November 9
10:15-11:30AM

Convention Center-Ballroom II
Studying changes in preparation and performance on the new vs. old exams will help us direct resources

• Are examinees from different groups preparing in good ways for the new exam? Can we provide examinees with better information?

• Are examinees receiving good information about the new exam from their undergraduate institutions? How can we reach out to disadvantaged and nontraditional examinees?
MCAT Preparation Resources & Outreach

**55 Outreach Events**
- In-person
- Webinars
- Twitter chats

**No & low cost test prep available**

**What’s on the MCAT Exam?**
- Khan Academy MCAT Collection

**Sample Test & Question Packs**

**Example Partnerships:**
- Mentoring in Medicine
- Tour for Diversity
- SNMA, LMSA, AAIP

**New preparation products next week**
Holistic review practices are especially important during this transition

Mission, Goals, Priorities

Diverse Class

Academics, Experiences, Personal Competencies
Questions
Hearing from you
We’re learning about the new scores while we’re using them
How are we working with the scores?

Christina Grabowski
Assistant Dean for Admissions and Financial Services
Oakland University William Beaumont School of Medicine
How are we working with the scores?

Theodore Hall
Associate Dean for Admissions

David Geffen School of Medicine, UCLA
How are we working with the scores?

Catherine Dayton
Director of Admissions

Cooper Medical School of Rowan University
Table Discussion Exercise

• How are your committees using scores from the new exam in the 2016 admissions cycle? (10 minutes)

• What kind of information or resources would help your admissions committees work with the new scores? (5 minutes)

• Report out to the group (5 minutes)

• Please leave your index cards with suggestions on your tables.
Contact Us

Email: schoolrel@aamc.org

Website: www.aamc.org/admissions